Environmental Assessment and Review Framework

September 2024

India: Supporting Human Capital Development in Meghalaya (Phase 2) Project

Prepared by the Department of Planning, Investment Promotion and Sustainable Development, Government of Meghalaya for the Asian Development Bank.

ABBREVIATIONS AND ACRONYMS

ADB	–	Asian Development Bank
AEFS	–	audited entity financial statements
APFS	–	audited project financial statements
COVID-19	–	coronavirus disease
DEA	–	Department of Economic Affairs
DPIPSD	–	Department of Planning, Investment Promotion and Sustainable Development
EA	–	executing agency
FMA	–	financial management assessment
GESI	–	gender equality and social inclusion
GOI	–	Government of India
M&E	–	monitoring and evaluation
MIS	–	monitoring information system
OCB	–	open competitive bidding
PAM	–	project administration manual
PIU	–	project implementation unit
PMC	–	project management consulting firm
PMU	–	project management unit
PSC	–	project steering committee
QPR	–	quarterly progress report
SOE	–	statement of expenditure
SPS	–	Safeguard Policy Statement
TOR	–	terms of reference

Notes

(i) The fiscal year (FY) of the Government of India ends on 31 March. “FY” before a calendar year denotes the year in which the fiscal year ends, e.g., FY2024 ends on 31 March 2024.

(ii) In this report, "$" refers to United States dollars.

CONTENTS

APPENDIXES

LIST OF TABLES

LIST OF FIGURES

I. INTRODUCTION

A. Overview

1. To support the Government of Meghalaya in strengthening its human capital base, the proposed Supporting Human Capital Development in Meghalaya (Phase 2) (SHCDM II) Project will tackle underlying issues at critical junctures in the education and skills development process. The project will support transformative solutions to steer skills trainings in the state towards better outcomes while encouraging innovation among youth and will enhance the quality of education to build a competent and steady student pipeline for further training and/or employment. The project is aligned with the following impacts (i) opportunities for aspirational skills development and innovation expanded (National Policy for Skill Development and Entrepreneurship, 2015), and (ii) competitiveness of Meghalaya's youth improved (Meghalaya Youth Policy, 2021). The project will have the following outcome: quality and effectiveness of schooling and skills development systems in Meghalaya improved.

2. **Output 1: Learning environment in government secondary and higher secondary schools enhanced.** This output will support the upgrade of safe, climate-resilient, gender responsive and inclusive infrastructure in over 50% of government schools at the SHS levels. These include separate toilets for girls and boys, water, sanitation and hygiene facilities, and separate activity rooms for girls.[1] To promote interactive learning and enable the building of digital competencies among students and teachers alike, this output will also help establish digital classrooms in the selected schools. To enable better teaching and learning in science, technology, engineering, and mathematics (STEM) subjects, this output will construct integrated science labs for secondary grades and separate science subject labs to expand the provision of the Science stream at the higher secondary level in selected government schools. This output will also support targeted outreach activities in the project school catchment areas to ensure enrolment and retention of children in school.[20] To alleviate the impacts of climate and disaster-related disruptions, this output will develop and orient project schools on emergency response plans.

3. **Output 2: Quality of teaching and learning in government schools improved.** This output will improve education quality at upper primary level and above through interventions focused on (i) strengthening the state's system for teacher professional development, (ii) boosting learning via measures such as provision of supplementary teaching materials and remedial lessons for STEM subjects, and (iii) enhancing systems for assessing learning outcomes.[2] To improve the regularity, quality and relevance of in-service teacher training, the project will (i) develop a system for regular teacher needs assessment that maps teachers to training needs and informs training design; (ii) upgrade training infrastructure with gender responsive facilities[3] and hostels in three DIETs; and (iii) design and implement training for government school teachers on content knowledge as well as pedagogy (including using digital tools) with an emphasis on cultivating conceptual mastery, reasoning, and analytical skills in students. Furthermore, the training will include modules on understanding children's well-being, socio-

[1] Girls' activity rooms refer to separate spaces for girls which also serve as sick rooms that girl students can use during menstruation.

[2] The teaching and learning interventions cover upper primary level and above as key concepts are introduced in the upper primary grades.

[3] The project will establish space and facility for childcare in the DIETs to encourage female teachers to participate in training. There are 7 DIETs serving 11 districts in the state. DIETs that serve multiple districts will be selected for upgrading infrastructure and facilities.

emotional learning and gender-responsive teaching. Supplementary teaching and learning materials will comprise a mix of physical and digital learning content and will be aligned with teacher training. The project will build on the state government's efforts to develop the system for learning assessments for STEM subjects in selected grades from developing item banks to training teachers and education functionaries in utilizing them.[4]

4. **Output 3: Access to and relevance of skilling system enhanced.** This output will expand provision of skills training that target a mix of wage employment in-state, higher skills training that can lead to higher paying out-of-state jobs, and entrepreneurship training to encourage self-employment.[5] The project will establish a residential Meghalaya Skills and Innovation Hub (MSIH) focusing on two key pillars (i) training for relatively higher skill levels such as IT/ITes sectors and niche sector-specific skills[6] as well as soft skills that are anchored on industry demand and employment opportunities; and (ii) incubation, acceleration and open innovation support to promote entrepreneurship in the state especially among women.[7] The MSIH will promote green skills and development of sustainable products and services, contributing to climate change mitigation.[8] To strengthen the relevance of skills training, this output will introduce new NCVT-aligned trades in select ITIs, including those that promote clean energy,[9] upgrade selected ITI trades to NCVT standards, and enhance trainer capacity by training instructors from ITIs as well as selected private TSPs on content, pedagogy, and preparing lesson plans. To ensure inclusive access to training opportunities across the state, the project will (i) establish hostels in selected ITIs and in the MSIH; (ii) undertake targeted outreach and mobilization of trainees to ensure inclusion of women and girls, and youth from socioeconomically disadvantaged groups;[10] and (iii) support customization of training modules, including translating content into regional languages.

5. **Output 4: Institutional capacity to deliver effective schooling and skills training strengthened.** This output aims to fill crucial gaps to make education and skills development more effective. It will (i) enhance the school education management information system (SEMIS) with a learning and development module for teachers, (ii) form district-level resource groups (DRGs)[11] to facilitate quality enhancement interventions in schools, (iii) develop and implement a school performance assessment framework to strengthen monitoring,[12] and (iv) enhance the capacity of principals and education functionaries in thematic and leadership areas. To strengthen the skills development ecosystem, the output will (i) establish two regional placements cum counselling cells, (ii) set up and/or strengthen institute management committees in selected ITIs

[4] Paper setters of the Meghalaya Board of School Education examinations will also be trained on using item banks; this is expected to steer state examinations toward measuring learning outcomes effectively.

[5] These include, but are not limited to, technical trades, agro-based sectors, health professionals, tourism and hospitality, gig economy-related jobs, IT and IT enabled services.

[6] Niche skills training, in this context, will cover courses across sectors that are relevant to the state but are not currently offered. These include but are not limited to training on cyber security, augmented reality and virtual reality, food fortification, sustainable tourism, intellectual property rights and others.

[7] The state government will leverage existing central and state-level funding schemes for start-ups to provide financing support for beneficiaries of the incubation and acceleration support program. These may include the Startup India Seed Fund Scheme, Meghalaya Entrepreneurship Promotion Scheme, CM ELEVATE and Atal Innovation Mission.

[8] Completing construction of MSIH is estimated to take 36 months. MSSDS will implement some training activities envisioned under MSIH at an interim facility while phase-wise construction of MSIH is ongoing. The interim facility is expected to be ready during the first year of project implementation period.

[9] These include mechanic electric vehicle (E-MMV) trade and drone technician trade in ITI Shillong and ITI Tura, and other trades that are in high demand.

[10] Mobilization activities will include print and digital media campaigns and physical outreach, including in schools.

[11] The DRGs will be formed as a sub-committee under the existing district level education committees.

[12] The school performance framework will build on the existing frameworks from the National University of Educational Planning and Administration and/or the Quality Council of India and be tailored to Meghalaya context.

to enhance industry linkage,[13] (iii) facilitate partnerships with private TSPs or external institutes to enhance training relevance and quality as well as employment outcomes, and (iv) develop an MIS with data disaggregated by sex and social group to enhance ITIs' management. This output will also support an interim skills gap analysis to identify new training opportunities during implementation, including in green skills. To strengthen pathways from schooling to further skilling, this output will (i) develop mechanisms for improving relevance of vocational education in project schools based on a detailed assessment of school-level vocational education, and (ii) enhance exposure of SHS students to skills training or entrepreneurship development opportunities.[14]

6. The Department of Planning, Investment Promotion and Sustainable Development (the Planning Department) will serve as the executing agency for the proposed project. A project management unit (PMU) established within the Planning Department will be responsible for overall project implementation. There will be three project implementing agencies comprising Department of Education (DOE), Meghalaya State Skills Development Society (MSSDS), and Directorate of Employment and Craftsmen Training (DECT). Each implementing agency will establish a project implementation unit (PIU). In addition, the State Sports Council of Meghalaya (SSCM) [15] will be engaged as a technical support agency to support the procurement and implementation activities related to civil works components under MSSDS and DECT. A project steering committee led by the Chief Secretary, Government of Meghalaya will provide strategic guidance for overall project implementation.

B. Project Components

7. The interventions support (i) upgrading of safe, climate-resilient, gender responsive, and inclusive infrastructure in over 50% of government schools at the secondary and higher secondary (SHS) school levels (under output 1); (ii) upgrading of training infrastructure in three District Institute of Education and Training (DIET) (under output 2); and (iii) establishing a residential Meghalaya Skills Innovation Hub (MSIH), including establishing hostels in selected industrial training institutes (ITIs) and in the MSIH (under output 3) infrastructure pertaining to new or upgraded residential facilities, redesigning workshops, workshops and classrooms for new trades.

8. Table 1 shows the indicative list of schools for upgrading.

Table 1: Indicative Project Components (Upgrading of School Facilities)

Sl No	Name of School/Institute	Block	District	Cluster	Estimated Budget in USD	Proposed Civil Work component
1.	Shillong Public School	Shillong Municipal and Cantt	East Khasi Hills	Khasi Region	800,598	New academic building (LG + G + 1)

[13] Institute management committees (IMCs) are governing bodies responsible for the overall management and strategic direction of the ITI. Their primary role is to ensure the institution meets its training objectives, maintains high education standards, and aligns its training programs with industry needs. A prominent industry leader chairs the IMC and has members from other industries and educational institutions. At present, IMCs are not functional in several ITIs in Meghalaya.

[14] For example, this could entail school-level orientation or field visits to nearby ITI, TSPs or MSIH.

[15] The State Sports Council of Meghalaya will implement civil works under output 3 related to MSSDS and Directorate of Employment, Craftsmen and Training (DECT). The council is equipped with an engineering team that has experience in implementing civil works for MSSDS and DECT.

2.	Pine Mount Girl's Public School	Shillong Municipal and Cantt	East Khasi Hills	Khasi Region	1,063,196	Demolition of existing office block and construction of new block (G), one laboratory building (G + 1), & expansion of existing building top floor for academic use.
3.	Jowai Public School	Thadlaskein	West Jaintia Hills	Jaintia Region	1,176,541	One multipurpose hall with 397 person capacity and indoor badminton facility One academic building (G+2)

G + 1 = ground flower plus one floor above it, G + 2 = ground floor plus two floors above it, LG = lower ground,
Source: Design and supervision consultants (M/s STUP Consultants Private Limited).

C. Purpose of the EARF

9. The environmental assessment and review framework (EARF) is a guiding document to support the executing agency (EA) and implementing agencies (IAs) in planning and dealing with potential environmental impacts that may arise during upgrading or development of the components planned under SHCDM II project. The EARF therefore, includes procedures to carry out environmental impact screening, assessment and mitigation, and monitoring and reporting related to the implementation of project components.

D. Environmental Categorization

10. As part of the preparation for ADB loan processing and in accordance with the ADB SPS 2009, draft initial environmental examinations (IEEs) including environmental management plans (EMPs) were prepared for two sample components, (i) Development of Meghalaya Skills and Innovation Hub in Shillong, and (ii) three schools in East Khasi and West Jaintia Hills. Rapid environmental assessment (REA) checklists were prepared and used to guide the preparation of the draft IEEs.

11. The IEEs confirm that the project is unlikely to have significant adverse impacts that are diverse, irreversible, or unprecedented. Potential environmental impacts and risks will be limited to the component footprint area. Appropriate mitigating measures and environmental sound engineering and construction practices can minimize/mitigate project-related environmental impacts.

12. As such, the project is categorized as B for environment. The component selection criteria will exclude components located within environmentally sensitive areas such as national parks, wildlife sanctuaries, biosphere reserves, tiger reserves, reserved and protected forests, wetlands under Ramsar and protected monuments. The selection criteria and screening process (pertaining to safeguards) for the program components are given in this EARF.

II. ASSESSMENT OF REGULATORY FRAMEWORK

A. National Regulatory Framework

13. The Government of India has established regulations to manage the environmental condition, solid waste, effluent and other waste, which will be directly relevant to components under the SHCDM II project. In addition, there are relevant legal provisions to ensure pollution prevention, protection of workers and labour, and provisions to ensure adequate management of environmental risks and impacts during the components' planning and implementation stages. This section outlines the laws, regulations, and policies (Table 2) and their applicability to the project.

Table 2: National Laws, Regulations, and Policies and their Applicability to the Project

S. No.	Key Regulations	Relevance to Project	Applicability
Environmental Management			
1.	Environment (Protection) Act, 1986 and Environmental Protection Rules 1986 and subsequent amendments thereon.	This is an umbrella act under which several applicable statutes/regulations have been framed. This Act provides general guidelines for prevention of pollution. Under this Act, rules have been specified for discharge/emission of effluents and different standards for environmental quality. These include standards for ambient noise, general effluent, emission, etc.	The Act will be followed to ensure environmental protection, compliance towards emissions, waste discharge, water quality, air quality, noise level standards, etc.
2.	EIA Notification, 2006 and subsequent amendments	The EIA notification lists out types of projects that require EIA and/or environmental clearance (EC) from the Expert Appraisal Committee of the Ministry of Environment, Forest and Climate Change, State/District Environment Impact Assessment Authority body prior to commencement of any developmental work or project expansion. As specified in the notification, the projects are classified into categories A and B based on the type of development/sector and potential impacts. Category B projects can be further classified into either category B1 or category B2.	The proposed project is not covered in the ambit of the EIA notification as they are not covered either under category A or category B of the notification. As a result, the categorization, and the subsequent environmental assessment and environmental clearance (EC) requirements, either from the State Government or the GoI are not triggered. However, EC may be required for the sources of construction materials such as stone quarries, sand mines, etc. during unavoidable circumstances, if the contractor is unable to

S. No.	Key Regulations	Relevance to Project	Applicability
			obtain necessary construction materials from government approved vendors.
3.	Water (Prevention and Control of Pollution) Act, 1974 and subsequent amendments	The Act prohibits discharge of pollutants into water bodies beyond a given standard and lays down penalties for non-compliance with its provisions. This Act will be applicable for segregation of liquid chemical waste at source and ensuring pre-treatment or neutralization prior to mixing with other effluents generated from facilities and standard disposal. The Central and State Pollution Control Boards are the statutory authorities.	CTE, and CTO would be required during construction phase from SPCB for construction equipment/machineries as per the industrial categorization of the SPCB such as batching plant, DG sets, crusher, etc. For operation of facilities also, CTE and CTO will be required from SPCB.
4.	The Air (Prevention and Control of Pollution) Act. 1981 and subsequent amendments	The purpose of this Act is to prevent and control air pollution, and preserve air quality. This Act empowers the Central and State Pollution Control Boards (CPCB/SPCB) for managing air quality and emission standards, as well as monitoring air quality, prosecuting offenders and issuing licenses for construction and operation of any facility. This Act has notified the national ambient air quality standard for different land uses.	
5.	Noise (Regulation and Control) Rules 2000 amended in 2010	The Rules require activity/processes generating noise to ensure that the ambient noise standards are within the prescribed standards. The proposed components will result in generation of noise during construction phase and will require to follow the noise standards as prescribed under the Rules.	The noise levels during construction period will be attenuated to meet the levels stipulated for the land use adjacent (within 100 m) to the components under the project. During operations stage, the noise levels for silence zone needs to be achieved as per the standards, i.e., 50 dB(A) during the day and 40 dB(A) during the night. No blasting activity is envisaged during construction. Hence, there will be no significant shaking or vibrations.
6.	National Environment	NEP is a comprehensive guiding document in India for all environmental conservation programs and legislations by central, state, and	The project authority should adhere to NEP principle of “enhancing

S. No.	Key Regulations	Relevance to Project	Applicability
	Policy (NEP), 2006	local government. The dominant theme of this policy is to promote betterment of livelihoods without compromising or degrading environmental resources. The policy also advocates collaboration method of different stakeholders to harness potential resources and strengthen environmental management.	and conservation of environmental resources and abatement of pollution".
7.	Guidelines/Criteria for evaluation of proposals/requests for ground water abstraction (With effect from 16.11.2015) and subsequent amendments (Constituted under subsection (3) of section 3 of the Environment (Protection) Act, 1986)	These guidelines specify the provisions to be followed for obtaining permission towards abstraction of ground water in Notified/Non-Notified areas. The requisite permission needs to be obtained from the Central Ground Water Authority (CGWA)/Department of Water Resources, if groundwater is abstracted for components.	Permission from the concerned authority needs to be obtained prior to extraction of ground water, if borewell, etc. are proposed.
8.	The Wildlife (Protection) Act, 1972 amended 1993 and Rules 1995; Wildlife (Protection) Amendment Act, 2002 and subsequent amendments	The Wildlife Protection Act, 1972 has allowed the government to establish a number of national parks and sanctuaries, and to protect and conserve the flora and fauna and their habitat. Prior wildlife clearance is required to be obtained if any works are to be carried out within the boundary of WLS.	The components selection criteria exclude activities to be located within the WLS under the project.
9.	Forest (Conservation) Act, 1980 and subsequent amendments; The Meghalaya Forest Regulation (Application and Amendment) Act, 1973	This Act provides for the conservation of forests and regulating the diversion of forest lands to non-forestry purpose. Any project falling under the forest area is required to obtain prior clearance from the relevant authorities under the Forest (Conservation) Act 1980.	The components selection criteria exclude activities to be located within forest land.
10.	Ancient Monuments and Archaeological Sites and Remains Act 1958 and subsequent amendments Meghalaya Heritage Act 2012	According to this Act, areas within the radii of 100 m and 300 m from the "protected property" are designated as "prohibited areas" and "regulated areas", respectively. No development activity is permitted in the "prohibited areas". Development activities are not permitted in the "regulated areas" without prior permission from the Archaeological Survey of India (ASI) if the site/remains/monuments are protected by ASI or the State Department of Archaeology.	The component selection criteria exclude component activities to be located within the prohibited and regulated areas of ASI protected monuments and controlled areas as defined for state

S. No.	Key Regulations	Relevance to Project	Applicability
			protected monuments/ sites.
11.	Coastal Regulation Zone (CRZ) Notification, 2019 and subsequent amendments	This notification declares coastal regulation zones for the purpose of conservation and protection of coastal areas and marine waters. Sections 4 and 5 of the Notification clarifies prohibited activities and regulation of permissible activities within CRZ limit. Section 6 of the Notification defines the procedure of securing CRZ clearance for permissible and regulated activities. Projects falling in CRZ needs prior clearance from the state or national coastal zone management authority as applicable.	The project location is away from CRZ.
12.	Wetlands (Conservation and Management) Rules, 2017 and subsequent amendments	These rules are enacted for the protection of wetlands and restriction of certain activities within wetlands by providing a regulatory mechanism. These rules apply to protected wetlands notified under the rules (which include Ramsar sites; wetlands in Eco-Sensitive Zones (ESZs) /United Nations Educational, Scientific and Cultural Organization (UNESCO) sites, high altitudes, etc.). Section 4 of the rule elaborates restrictions of activities in wetlands.	Permission from concerned authority will be obtained if any impact is envisaged on any such feature. The component selection criteria exclude component activities to be in notified wetlands or reclaimed land from wetland.
13.	Notification of Eco Sensitive Zones (ESZs) and subsequent amendments	ESZs are areas of significant ecological importance. The ESZ notification is to conserve and protect the natural resources and living being. Several zones are declared in the country as eco-sensitive zones by notifications. Any project activity located in ESZs will require prior permission from the ESZ monitoring committee.	The component selection criteria exclude component activities to be in ESZ.
14.	Meghalaya Tree (Preservation) Act, 1976	For conservation of trees and restoration of felled trees.	Permission from concerned authority prior to tree felling will be secured. Compensatory plantation activities will be taken up as stipulated by the State Forest Department or rules.
15.	The National Green Tribunal (NGT) Act, 2010	NGT provides an effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources, including enforcement of any legal right relating to environment and giving relief and compensation for damages to persons and property and for matters connected therewith. NGT has jurisdiction over matters related to Water Act, 1974; Water Cess Act, 1977; Forest (Conservation) Act, 1980; Air Act, 1981; Environment (Protection) Act, 1986; Public	Stakeholders/affected persons may approach NGT to resolve component/s-induced environmental issues.

S. No.	Key Regulations	Relevance to Project	Applicability
		Liability Insurance Act, 1991; and Biodiversity Act, 2002. Consequently, no other court will have jurisdiction over the matters related to environment falling under the above referred Acts. Being a dedicated tribunal for environmental matters with the necessary expertise to handle environmental disputes, NGT provides speedy justice (within 6 months). Chennai is one of the five locations of the Tribunal (Southern Zonal Bench is in Chennai). If not satisfied with the NGT decision, aggrieved party can approach the Supreme Court within the specified period. Matters relating to the Wildlife (Protection) Act, 1972 do not fall under the jurisdiction of NGT.	
16.	The Motor Vehicle Act, 1988 and Motor Vehicles Rules, 1989 and subsequent amendments	The Act regulates all aspects of road transport vehicles. It details legislative provisions regarding licensing of drivers/conductors, registration of motor vehicles, control of motor vehicles through permits, traffic regulation, insurance, liability, offenses, and penalties, etc. This Act will be applicable to all machinery, including vehicles/machineries deployed/used by contractor and/or facility authority.	The law mandates a valid pollution under control certificate (PUC) for vehicles.
17.	Solid Waste Management (SWM) Rules, 2016	2. These guidelines The SWM Rules of 2016 will be applicable to the disposal of solid waste generated from construction camp and facilities which may include packaging material, food waste, and other general waste. All bio-degradable, non-biodegradable, and domestic hazardous wastes generated in the facility premise need to be managed by the facility authorities in accordance with the relevant provision of this Rule.	The project authority is required to engage a licensed waste disposal company to collect and handle the nonhazardous solid waste, and/or arrange with municipal authority/local authority for the collection and disposal of nonhazardous solid waste.
18.	Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016	These rules ensure the protection of the public against improper handling and disposal of hazardous wastes. These rules will be applicable to hazardous material and waste storage and handling. 3. The waste generated from healthcare facilities may be hazardous in nature depending on the toxic, corrosive, flammable, reactive, and genotoxic properties. Examples of these are broken thermometers, blood pressure gauges, or waste containing mercury and cadmium content,	For handling and disposal of hazardous waste, authorization under this rule will be ensured for the component/s. The rule also mandates the facility generating hazardous waste to have a formal tie-up with an SPCB approved authorized vendor for the collection and disposal of hazardous waste.

S. No.	Key Regulations	Relevance to Project	Applicability
		etc. In addition, effluent treatment plant sludge and used oil generated from generator sets are also considered as hazardous waste.	
19.	Construction and Demolition Waste Management Rules, 2016	The rules apply to every waste resulting from construction, remodelling, repair, and demolition of any civil structure of individual or organization or authority who generates construction and demolition waste such as building materials, debris, rubble. To promote the management of construction and demolition waste in an environmentally friendly manner and reduce the environmental impacts throughout the duration of the project, CPCB has developed guidelines on Environmental Management of C&D Waste Management in India (2017) in accordance with the Rule 10 sub-rule 1(a) of C&D Waste Management Rules, 2016.	The proposed component which will generate construction and demolition (C&D) waste during the construction stage would require to manage the C&D waste in line with the CPCB guidelines.
20.	E-Waste (Management and Handling) Rules, 2022 (Electrical and electronic waste)	Provides for the collection, dismantling, recycling, transport, disposal, and overall handling of e-waste. E-waste means electrical and electronic equipment waste, whole or in part, or rejects from manufacturing and repair process which are intended to be discarded.	Applicable as electrical and electronics as listed in Schedule I of the aforesaid rules will be used and will require replacement within the lifecycle of the components as well during decommissioning. As per the provision of these rules, the disposal of e-wastes will be done at the specified collection centers and needs to be reported annually.
21.	Plastic Waste Management Rules, 2016 and amendments	The Act regulates the responsibilities of producers and generators, for effective segregation, management, and recycling of plastic waste.	The facility authority is required to engage a licensed recycler to collect and handle the recyclable plastic waste generated from the facility.
22.	National Building Code (NBC), 2016 Meghalaya Building By-Laws, 2021	The primary requirement of the Code is the safety of the occupants, the safe exit of occupants, restricting fire to a part of the building and the suppression of fire through automatic or manual means.	The proposed project will have to comply with fire and life safety considerations (as applicable) under the NBC and under the Meghalaya Building By-Laws, 2021 to obtain occupancy certificate.

S. No.	Key Regulations	Relevance to Project	Applicability
			A certificate of satisfactory erection of lift (as applicable) has to be procured to obtain occupancy certificate under the Meghalaya Building By-Laws, 2021.
23.	National Disaster Management Act 2005	Provides for the timely and effective response to disaster. It lays down guidelines to be followed by the state authorities in drawing up the state plans. This Act is applicable if the project encounters natural disaster during the construction or operation stage.	Applicable in case any disaster situation arises. The project will have both onsite and offsite emergency response plan prepared for the construction and operations period.
24.	Regulation of Polychlorinated Biphenyls Order, 2016	Use of polychlorinated biphenyls (PCBs) by the project will be prohibited as per the provisions of the order. Old transformers, if any, will be handled as per the provisions of the Act, and all existing transformers to be PCB free by 2025. Disposal of PCB containing equipment must be done as per Hazardous and Other Wastes (Management & Trans-boundary Movement) Rules	Applicable in case of transformers/ substations to be installed for power supply
25.	Ozone Depleting Substances (Regulation) Rules, 2000 as amended in 2005	Use of ozone depleting substances by the project will be prohibited as per the provisions of the Act. Any equipment, using such substances will be hermetically sealed.	Applicable as refrigerators, air conditioners, fire extinguishers will be used. It needs to be ensured that no ozone depleting substances are used by such appliances.
Workers and Labor Welfare			
26.	The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) BOCW Act, 1996	This is a social welfare legislation that aims to benefit workers engaged in building and construction activities across the country and regulates the employment and conditions of service of building and other construction workers; and to provide for their safety, health, and welfare measures and for other matters connected therewith or incidental thereto.	This act will have a direct applicability to the project as it will involve construction activity for the proposed facilities.
27.	Workmen's Compensation Act, 1923 and Rules 1924 and subsequent amendments	The Act requires if personal injury is caused to a workman by accident arising out of and in the course of his employment, his employer should be liable to pay compensation in accordance with the provisions of this Act. The provision of this act will be applicable during the construction and operation phase.	The provisions of the act are to be adhered to by the contractor, developer, and facility administration at all times of the component/s construction and operation. Labor insurance is required to be obtained for skilled,

S. No.	Key Regulations	Relevance to Project	Applicability
			semi-skilled, and unskilled workers.
28.	The Child Labour (Prohibition and Regulation) Act, 1986	This Act prohibits employment of children in certain occupations and processes (including construction and demolition activities) as listed in the Act. The Act also specifies conditions of work for children, if permitted to work. The Act also requires maintenance of a register of employed children (Section 11).	The contractor and project authorities need to ensure that no child labor is engaged at the site for construction or operation works either directly or by the contractors/sub-contractors.
29.	The Bonded Labour (Abolition) Act 1976	Bonded labor means any labor or service rendered under the bonded labor system. The act states that all forms of bonded labor stand abolished, and every bonded laborer stands freed and discharged from any obligations to render any bonded labor.	The contractor and project authorities need to ensure that no bonded labor is practiced at the site for construction or operation works either directly or by the contractors/sub-contractors.
30.	Minimum Wages Act, 1948	The Act empowers the Government to fix minimum wages for employees working in specified employments. The Act requires the Government to fix minimum rates of wages and review the rates every 5 years. These are the minimum wages that are to be paid to employees (for construction workers).	The project authority needs to ensure the display of wage notice and issue wage slip to workers as prescribed by the regulatory body.
31.	Equal Remuneration Act 1976	As per the Equal Remuneration Act 1976, it is the duty of an employer to pay equal remuneration to men and women workers for same work or work of a similar nature. This act will be applicable to the proposed project during construction and operation stage.	The contractor and project authority need to ensure the adherence to provision of this Act.
32.	Inter-state Migrant Workers (ISMW) Act, 1979 and subsequent amendments	The objective of the act is to regulate the employment of interstate migrant workmen and to provide for their conditions of service and for matters connected therewith. Every establishment that is recruiting interstate migrant workmen will be required to be registered with registering officers and every contractor who employs interstate migrant workmen need to obtain a licence from the specified authority both of the State, i.e., home state (the place of origin of the migrant worker) and the host state (where to be employed).	Applicable if more than five interstate workers are engaged. The requisite license needs to be obtained from governing authority as per the provisions stipulated in the act.
33.	Meghalaya Identification, Registration (Safety & Security) of Migrant Workers Act, 2020	Provides the rules for identification and registration of migrant workers in the State of Meghalaya	Applicable in case migrant workers from other Indian states are recruited.

S. No.	Key Regulations	Relevance to Project	Applicability
34.	The Contract Labour (Regulation and Abolition) Rules, 1971, 1973 and subsequent amendments.	The Act provides for certain welfare measures to be provided by the contractor to contract labor, and in case the Contractor fails to provide, the same are required to be provided by the principal employer by law. The principal employer is required to get a certificate of registration and the contractor is required to obtain a license from the designated officer.	This act will be applicable to all construction works envisaged during the construction phase of the component/s.
35.	The E.P.F. and Miscellaneous Provisions act, 1952	This act aims to provide a kind of social security to the employees and workers. The Act provides retirement or old age benefits, such as Provident Fund, Superannuation Pension, Invalidation Pension, Family Pension and Deposit-Linked Insurance.	This norm secures the well-being of the employees and will be followed as applicable.
36.	Public Liability Insurance Act, 1991	An Act provides for public liability insurance for the immediate relief of persons affected by accident occurring while handling any hazardous substance and for matters connected therewith or incidental thereto.	The contractor/ subcontractor needs to obtain insurance policies to cover liabilities from accidents that cause harm or injury to the affected person.

CTE = Consent to Establish, CTO = Consent to Operate, dB(A) = decibels A, EIA = environmental impact assessment, E.P.F. = Employees Provident Fund, e-waste = electronic waste, GOI = Government of India.
Note: All relevant statutes/regulations and their amendments of the country/state/local body related to environmental safeguards and labor standards will be applicable.
Sources: Secondary research - latest official notifications of Indian National Laws, Regulations, and Policies.

B. International Environmental Agreements

14. The list of major multilateral environmental agreements (MEAs), to which India is a signatory are listed below:

Nature conservation

Table 3: International Treaties, Conventions, and Declarations for Nature Conservation

S. No.	Nature Conservation
1	Ramsar Convention on Wetlands: The Convention on Wetlands is an intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. India currently has 49 sites designated as Wetlands of International Importance (Ramsar Sites), with a surface area of 1,093,636 hectares. Source: https://www.ramsar.org/
2	CITES (Convention on International Trade in Endangered Species of Fauna and Flora) is an international agreement between governments. Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten the survival of the species.

S. No.	Nature Conservation
	Source: https://cites.org/eng
3	TRAFFIC (The Wildlife Trade Monitoring Network): To ensure the trade in wild plants and animals is not a threat to the conservation of nature. TRAFFIC is a leading non-governmental organization working globally on trade in wild animals and plants in the context of both biodiversity conservation and sustainable development. Source: https://www.traffic.org/about-us/our-mission/
4	CMS (Convention on the Conservation of Migratory Species): CMS also known as the Bonn Convention, is an environmental treaty of the United Nations that provides a global platform for the conservation and sustainable use of terrestrial, aquatic, and avian migratory animals and their habitats. CMS brings together the States through which migratory animals pass, the Range States, and lays the legal foundation for internationally coordinated conservation measures throughout a migratory range. Source: https://www.cms.int/
5	CAWT (Coalition Against Wildlife Trafficking): The Coalition Against Wildlife Trafficking (CAWT) was established in 2005 by the U.S. State Department as a voluntary coalition of governments and organizations that aims to end the illegal trade of wildlife and wildlife products. CAWT currently includes six governments and thirteen international nongovernment organizations. Source:https://mea.gov.in/bilateral-documents.htm?dtl/6017/Fact+Sheet+on+Wildlife+Trafficking
6	CBD (Convention on Biological Diversity): The key objective of CBD includes the (a) conservation of biological diversity, (b) sustainable use of the components of biological diversity, (c) fair and equitable sharing of the benefits arising out of the utilization of genetic resources. Source: https://www.cbd.int/intro/
7	ITTC (International Tropical Timber Organization): ITTC is an intergovernmental organization promoting the sustainable management and conservation of tropical forests and the expansion and diversification of international trade in tropical timber from sustainably managed and legally harvested forests. Source: https://www.itto.int/about_itto/
8	UNFF (United Nations Forum on Forests): The United Nations Forum on Forests is a high-level intergovernmental policy forum. The United Nations Strategic Plan for Forests 2017-2030 (UNSPF) provides a global framework for actions at all levels to sustainably manage all types of forests and trees outside forests and halt deforestation and forest degradation. The Strategic Plan provides a global framework for actions at all levels to sustainably manage all types of forests and trees outside forests and halt deforestation and forest degradation. Source: https://www.un.org/esa/forests/index.html
9	IUCN (International Union for Conservation of Nature and Natural Resources): The IUCN is an international organization working in the field of nature conservation and sustainable use of natural resources. Source: https://www.iucn.org/
10	GTF (Global Tiger Forum): Inter-governmental international body working exclusively for the conservation of Tigers in the wild.

Sources: Secondary research - latest official documents of international treaties, conventions, and declarations on nature conservation.
https://www.ramsar.org/; https://cites.org/eng; https://www.traffic.org/about-us/our-mission/; https://www.cms.int/; https://mea.gov.in/bilateral-documents.htm?dtl/6017/Fact+Sheet+on+Wildlife+Trafficking ; https://www.cbd.int/intro/ ; https://www.itto.int/about_itto/ ; https://www.un.org/esa/forests/index.html ; https://www.iucn.org/

Hazardous material

Table 4: International Treaties, Conventions, and Declarations for Management of Hazardous Material

S. No	Hazardous Material
1	Cartagena Protocol on Biosafety: The Cartagena Protocol on Biosafety to the Convention on Biological Diversity is an international agreement which aims to ensure the safe handling, transport, and use of living modified organisms (LMOs) resulting from modern biotechnology that may have adverse effects on biological diversity, taking also into account risks to human health. It was adopted on 29 January 2000 and entered into force on 11 September 2003. Source: https://bch.cbd.int/protocol/background/
2	Strategic Approach to International Chemicals Management: The Strategic Approach to International Chemicals Management (SAICM) is a global multi-sectoral and multi-stakeholder policy framework, whose secretariat is hosted by the UN Environment Programme. It offers a forum to discuss and address the many challenges related to the adoption and implementation of national policies to safely manage chemicals. Source: https://www.unep.org/resources/factsheet/strategic-approach-international-chemicals-management-saicm
3	Stockholm Convention on Persistent Organic Pollutants (POPs): The Stockholm Convention is a global treaty that aims to protect human health and the environment from the effects of persistent organic pollutants (POPs). The Stockholm Convention currently regulates 29 POPs. Source: http://chm.pops.int/
4	Basel Convention on the Control of Trans-boundary Movement of Hazardous Waste and Their Disposal: The overarching objective of the Basel Convention is to protect human health and the environment against the adverse effects of hazardous wastes. Its scope of application covers a wide range of wastes defined as “hazardous wastes” based on their origin and/or composition and their characteristics, as well as two types of wastes defined as “other wastes” - household waste and incinerator ash. Source: http://www.basel.int/TheConvention/Overview/tabid/1271/Default.aspx

Sources: Secondary research - latest official documents of international treaties, conventions, and declarations on the management of hazardous material.
https://bch.cbd.int/protocol/background/ ; https://www.unep.org/resources/factsheet/strategic-approach-international-chemicals-management-saicm ; http://chm.pops.int/ ; http://www.basel.int/TheConvention/Overview/tabid/1271/Default.aspx

Atmospheric emissions

Table 5: International Treaties, Conventions, and Declarations for Atmospheric Emissions

S. No	Atmospheric Emissions
1	United Nations Framework Convention on Climate Change (UNFCCC): The ultimate objective of all three agreements under the UNFCCC is to stabilize greenhouse gas concentrations in the atmosphere at a level that will prevent dangerous human interference with the climate system, in a time frame which allows ecosystems to adapt naturally and enables sustainable development. Source: https://unfccc.int/
2	Kyoto Protocol: Kyoto Protocol operationalizes the UNFCCC by committing industrialized countries and economies in transition to limit and reduce greenhouse gases (GHG) emissions in accordance with agreed individual targets. The Convention itself only asks those countries to adopt policies and measures on mitigation and to report periodically. Source: https://unfccc.int/kyoto_protocol

S. No	Atmospheric Emissions
3	Montreal Protocol (on Ozone Depleting Substances): The Montreal Protocol on Substances that Deplete the Ozone Layer (the Montreal Protocol) is an international agreement made in 1987. It was designed to stop the production and import of ozone depleting substances and reduce their concentration in the atmosphere to help protect the earth's ozone layer. Source: https://www.unep.org/ozonaction/who-we-are/about-montreal-protocol

Sources: Secondary research - latest official documents of international treaties, conventions, and declarations on atmospheric emissions.
https://unfccc.int/ ; https://unfccc.int/kyoto_protocol ; https://www.unep.org/ozonaction/who-we-are/about-montreal-protocol

Marine environment

Table 6: International Treaties, Conventions, and Declarations for Marine Environment

S. No	Marine Environment
1	International Whaling Commission (IWC): The IWC was established in 1946 as the global body responsible for management of whaling and conservation of whales. Today, the IWC has 88 member countries. The mandate has not changed but many new conservation concerns exist and the IWC work programme now also includes bycatch and entanglement, ship strikes, ocean noise, pollution and debris, and sustainable whale watching. Source: https://iwc.int/en/

Sources: Secondary research - latest official documents of international treaties, conventions, and declarations on the marine environment.
https://iwc.int/en/

Occupational Health and Safety

Table 7: International Treaties, Convention for Labor Health and Safety

S. No	Labor Health and Safety
1	India is a signatory to the International Labour Organization (ILO) Core Labor Standards[16] with 47 conventions and 1 protocol ratified. This relates to ensuring core labor standards are upheld for construction workers. [17] https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11200:0::NO::p11200_country_id:102691

Sources: Secondary research - latest official documents of international treaties and convention on labor health and safety.
https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11200:0::NO::p11200_country_id:102691

[16] International Labour Organization (ILO) Core Labor Standards. https://www.adb.org/sites/default/files/institutional-document/33480/files/cls-handbook.pdf

[17] According to the core labor standards of ADB, there are no international conventions ratified by India related to the aspect of freedom of association and the effective recognition of the right to collective bargaining. Hence the following conventions are yet to be ratified by India:

- C087 - Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87)
- C098 - Right to Organise and Collective Bargaining Convention, 1949 (No. 98)
- C154 - Collective Bargaining Convention, 1981 (No. 154)

C. ADB Environmental Safeguards

15. SPS 2009[18] provides for the environmental requirements and review procedures of ADB and applies to all projects/programs and grants ADB finances. SPS 2009 comprises three key safeguard areas: environment, involuntary resettlement, and indigenous peoples; and aims to avoid adverse project/program impacts to both the environment and the affected people; minimize, mitigate and/or compensate for adverse project impacts; and help borrowers strengthen their safeguard systems and develop their capacity in managing the environmental and social risks. At the project identification phase, ADB uses a categorization system to indicate the significance of potential environmental impacts and is determined by the category of its most environmentally sensitive component, including direct, indirect, cumulative, and induced impacts within the project's area of influence. The project categorization system is described below.

Category A. A proposed project is classified as Category A if it is likely to have significant adverse environmental impacts that are irreversible, diverse, or unprecedented. These impacts may affect an area larger than the sites or facilities subject to physical works. An environmental impact assessment is required.

Category B. A proposed project is classified as Category B if its potential adverse environmental impacts are less adverse than those of Category A projects. These impacts are site-specific, few if any of them are irreversible, and in most cases mitigation measures can be designed more readily than for Category A projects. An initial environmental examination is required.

Category C. A proposed project is classified as Category C if it is likely to have minimal or no adverse environmental impacts. No environmental assessment is required although environmental implications need to be reviewed.

Category FI. The proposed project involves the investment of ADB funds to, or through, a financial intermediary.

16. Depending on the significance of project impacts and risks, a full-scale environmental impact assessment (EIA) will be required for Category A projects. An initial environmental examination (IEE) will be required for Category B projects. A desk review and a preliminary field visit are required for Category C projects. EIA will be a comprehensive assessment while an IEE, with its narrower scope, is conducted for projects with limited impacts that are few, generally site-specific, largely reversible, and readily addressed through mitigation measures (Category B). An EMP, which addresses the potential impacts and risks identified by the environmental assessment, shall be prepared. The level of detail and complexity of the EMP and the priority of the identified measures and actions will be commensurate with the project's impact and risks.

17. **Safeguard Policy Statement (SPS): Environmental Safeguard**: The objective of this Policy Statement is to ensure the environmental soundness and sustainability of projects and to support the integration of environmental considerations into the project decision-making process. Environmental safeguards are triggered if a project is likely to have potential environmental risks and impacts. Safeguard requirements for environment are detailed in Appendix 1 of the ADB SPS 2009.

[18] https://www.adb.org/sites/default/files/institutional-document/32056/safeguard-policy-statement-june2009.pdf

ADB SPS 2009 Environmental Safeguards Policy Principles:

1. Use a screening process for each proposed project, as early as possible, to determine the appropriate extent and type of environmental assessment so that appropriate studies are undertaken commensurate with the significance of potential impacts and risks.

2. Conduct an environmental assessment for each proposed project to identify potential direct, indirect, cumulative, and induced impacts and risks to physical, biological, socioeconomic (including impacts on livelihood through environmental media, health and safety, vulnerable groups, and gender issues), and physical cultural resources in the context of the project's area of influence. Assess potential transboundary and global impacts, including climate change. Use strategic environmental assessment where appropriate.

3. Examine alternatives to the project's location, design, technology, and components and their potential environmental and social impacts and document the rationale for selecting the particular alternative proposed. Also consider the no project alternative.

4. Avoid, and where avoidance is not possible, minimize, mitigate, and/or offset adverse impacts and enhance positive impacts by means of environmental planning and management. Prepare an environmental management plan (EMP) that includes the proposed mitigation measures, environmental monitoring and reporting requirements, related institutional or organizational arrangements, capacity development and training measures, implementation schedule, cost estimates, and performance indicators. Key considerations for EMP preparation include mitigation of potential adverse impacts to the level of no significant harm to third parties, and the polluter pays principle.

5. Carry out meaningful consultation with affected people and facilitate their informed participation. Ensure women's participation in consultation. Involve stakeholders, including affected people and concerned nongovernment organizations, early in the project preparation process and ensure that their views and concerns are made known to and understood by decision makers and taken into account. Continue consultations with stakeholders throughout project implementation as necessary to address issues related to environmental assessment. Establish a grievance redress mechanism to receive and facilitate resolution of the affected people's concerns and grievances regarding the project's environmental performance.

6. Disclose a draft environmental assessment (including the EMP) in a timely manner, before project appraisal, in an accessible place and in a form and language(s) understandable to affected people and other stakeholders. Disclose the final environmental assessment, and its updates if any, to affected people and other stakeholders.

7. Implement the EMP and monitor its effectiveness. Document monitoring results, including the development and implementation of corrective actions, and disclose monitoring reports.

8. Do not implement project activities in areas of critical habitats, unless (i) there are no measurable adverse impacts on the critical habitat that could impair its ability to function, (ii) there is no reduction in the population of any recognized endangered or critically endangered species, and (iii) any lesser impacts are mitigated. If a project is located within a legally protected area, implement additional programs to promote and enhance the conservation aims of the protected area. In an area of natural habitats, there must be no significant conversion or degradation, unless (i) alternatives are not available, (ii) the overall benefits from the project substantially outweigh the environmental costs, and (iii) any conversion or degradation is appropriately mitigated. Use a precautionary approach to the use, development, and management of renewable natural resources.

9. Apply pollution prevention and control technologies and practices consistent with international good practices as reflected in internationally recognized standards such as the World Bank Group's Environmental, Health and Safety Guidelines. Adopt cleaner production processes and good energy efficiency practices. Avoid pollution, or, when avoidance is not possible, minimize or control the intensity or load of pollutant emissions and discharges, including direct and indirect greenhouse gases

emissions, waste generation, and release of hazardous materials from their production, transportation, handling, and storage. Avoid the use of hazardous materials subject to international bans or phaseouts. Purchase, use, and manage pesticides based on integrated pest management approaches and reduce reliance on synthetic chemical pesticides.

10. Provide workers with safe and healthy working conditions and prevent accidents, injuries, and disease. Establish preventive and emergency preparedness and response measures to avoid, and where avoidance is not possible, to minimize, adverse impacts and risks to the health and safety of local communities.

11. Conserve physical cultural resources and avoid destroying or damaging them by using field-based surveys that employ qualified and experienced experts during environmental assessment. Provide for the use of "chance find" procedures that include a pre-approved management and conservation approach for materials that may be discovered during project implementation.

Source: ADB SPS 2009

18. This project is categorized as B for Environment safeguards. The Executing Agency through Implementing Agency will conduct an environmental screening for all the components under this project in accordance with EARF. The screening results will be intimated to ADB for clearance. If the screening result shows the component is Category B for environment, then further assessment in the form of an IEE report is required in accordance with the EARF before the component is included in the scope, so that the project is in accordance with ADB's SPS 2009 requirements.

19. SPS 2009 requires information about environmental safeguard issues to be made available in a timely manner, in an accessible place, and in a form and language(s) understandable to affected people and to other stakeholders, including the public, so they can provide meaningful inputs into component/s design and implementation. For illiterate people, suitable communication methods will be used. This EARF and sample IEE will be disclosed on ADB's website and Executing Agency and Implementing Agencies' website as well as the site offices. During project implementation, consistent with SPS 2009, the disclosure of documents submitted by Executing Agency for this project will be (i) new or updated IEEs, and a corrective action plans, if any, prepared during project implementation, upon receipt by ADB; and, (ii) the environmental monitoring reports, upon receipt by ADB.

20. SPS 2009 requires communities, groups, or people affected by components, and civil society to be engaged by Executing Agency through information disclosure, consultation, and informed participation in a manner commensurate with the risks to and impacts on affected communities. Meaningful consultation processes are defined as those that (i) beginning early in the project preparation stage and being carried out on an ongoing basis throughout the project cycle, (ii) providing timely disclosure of relevant and adequate information that is accessible to affected people, (iii) being free of intimidation and coercion, (iv) being gender inclusive and responsive, and (v) enabling the incorporation of all relevant views of affected people and other stakeholders in decision-making. The consultation process and its results are to be documented and reflected in an IEE report for Category B components.

21. SPS 2009 also requires EA to set up and maintain a grievance redress mechanism (GRM) to receive and facilitate resolution of affected peoples' concerns and grievances about their environmental performance at project level. It should address affected people's concerns and complaints promptly, using an understandable and transparent process that is gender responsive, culturally appropriate, and readily accessible to all segments of the affected people. Affected people can also take complaints to ADB's Accountability Mechanism although they should

approach the local GRM in the first instance; but the GRM should not impede access to the country's judicial or administrative remedies.

22. **International Finance Corporation Environment, Health, and Safety Guidelines.** SPS 2009 refers borrowers to the IFC's General Environment, Health, and Safety (EHS) Guidelines, 2007 which set out international good practice related to environment, health, and safety which the project should follow regarding assessment of potential impacts and applicable standards and management measures, performance indicators, and monitoring guidelines.

D. Compatibility between Country's and ADB Safeguard Policy

23. The ADB environmental safeguard policy principles are encompassed entirely in its Safeguard Policy Statement 2009. Government of India has different but robust environmental legislative framework, embedded in various Acts, Policies, Rules and Regulations. While the ADB SPS is in line with the multilateral development financing institutions, Government of India policies are also comparable to international environmental framework including that of ADB. The National Environmental Policy, 2006 is a comprehensive policy document, addresses all relevant aspects of environmental protection and conservation, environmental sustainability and enforcement. The Environmental (Protection) Act, 1986 and its Rules, Notification, Standards, etc., have created robust regulatory framework. Besides, there are parallel and complementing legislations dealing with specific aspects like forest, wildlife, pollution control, archaeological conservation, etc.

24. The Government of India's environmental assessment and clearance process is, in principle, consistent with ADB's environmental assessment process and public disclosure requirements. Environmental impact assessments (EIAs) for development projects under Category 'A' and 'B1' projects are similar to ADB's screening, categorization, assessment, and clearance/approval systems. The difference between both the requirements is that while the ADB "environmental safeguards are triggered if a project is likely to have potential environmental risks and impacts", the Government of India EIA Notification clearly defines the projects/activities and their environmental categories (A/B1/B2) that require environmental assessment. The project/activities included are on the nature, scale and location, and cover activities that are likely to have adverse environmental impacts. The ADB SPS requires the review of environmental assessment requirement for every project/component separately and assigns classification (A/B/C) based on sensitivity of the component.

25. Environmental Guidelines and selection Criteria for Component Selection under this project rules out the possibilities of requirement of forest clearance, wildlife clearance, CRZ clearance, clearance from ASI/State Department of Archaeology; however, the component will require Environmental Clearances, consents and authorisation from pollution control board, various licenses/NoC (i.e., labour license, Fire NoC, Occupancy certificate, PESO License etc.) as detailed out in 'National Regulatory Framework' sections**.**

26. Components under this project are unlikely to have significant adverse impacts that are irreversible, diverse or unprecedented, and therefore under ADB SPS they are likely to be categorized as B. There may be some adverse impacts during construction, however, these will be temporary and will likely be localised. It is therefore required that proposed components are subjected to screening, categorization, and preparation of IEEs and EMPs. Comparative requirements of Government of India and ADB for the project are presented in below table.

Table 8: Comparative Analysis of ADB SPS and Regulatory Framework of Government of India

No.	Environmental Policy Principle	Safeguard Consideration in Indian Regulatory Framework
1.	Use a screening process for each proposed project, as early as possible, to determine the appropriate extent and type of environmental assessment so that appropriate studies are undertaken commensurate with the significance of potential impacts and risks.	Environmental Screening provides a preliminary idea regarding the nature, extent, and phasing of environmental issues that would need to be handled during the subsequent stages and their severity. The EIA notification of 2006 and its subsequent amendments act as the preliminary screening tool for projects that require further environmental assessment and categorizes project based on their scale/magnitude. As per the notification of the MoEF&CC of September 2006, as amended to date, the projects are classified into Category A and B based on the type of development/sector and potential impacts. The Category B projects can be further classified into either Category B1 or Category B2. Any developmental activity, which is listed in Schedule of the EIA Notification and after expansion due to its total capacity, if falls under the purview of Category A, then such developmental activities require clearance from MOEF&CC. Category B1 projects require to follow all stages applicable for a Category A project but are processed at the SEIAAs/UTEIAAs. Category B2 projects, on the other hand, do not require either EIA or public consultation.
2.	Conduct an environmental assessment for each proposed project to identify potential direct, indirect, cumulative, and induced impacts and risks to physical, biological, socioeconomic (including impacts on livelihood through Environmental media, health and safety, vulnerable groups, and gender issues), and physical cultural resources in the context of the project's area of influence. Assess potential transboundary and global impacts, including climate change. Use strategic environmental assessment where appropriate.	Environmental assessment acts as a tool to predict the impacts associated with the project in advance and further facilitates in development of strategy towards mitigating or reducing any negative impact on environmental and livelihood of people in project influence area. If the proposed facilities exceed Built-Up Area (BUA) of 20,000m2, environmental Assessment will be mandatory and Environment Clearance (EC) from concerned authority will be applicable prior to commencement of construction works. The Components as per EIA notification 2006 will be exempted from the requirement of Environmental Clearance. Environmental Assessment and EC will be applicable for the sources of construction materials such as stone quarries, sand mines etc. The sub- projects wouldn't require Public Hearing or stakeholder engagement.
3.	Examine alternatives to the project's location, design, technology, and components and their potential environmental and social impacts and document the rationale for selecting the particular alternative proposed. Also consider the no project alternative.	In EIA process, the analysis of alternatives is the study of alternative ways to meet the project needs and achieve the project purpose. It also includes the assessment of alternative sites/routes to establish a project, and assessment of various technical and economical feasible ways to implement the project by reducing the impact on environment and livelihood of people. As part of the Scoping exercise the Expert Appraisal Committee (for Category 'A' projects/activities) and State level Expert Appraisal Committee (for Category 'B1' projects/activities), determines the detailed and comprehensive Terms of Reference (TOR) addressing all

No.	Environmental Policy Principle	Safeguard Consideration in Indian Regulatory Framework
		relevant environmental concerns for the preparation of an Environment Impact Assessment (EIA) Report. If the TOR document includes the Analysis of Alternatives as a result of scoping exercise, the study needs to include description of each alternative, summary of adverse impacts of each alternative, mitigation measures proposed for each alternative and selection of alternative.
4.	Avoid, and where avoidance is not possible, minimize, mitigate, and/or offset adverse impacts and enhance positive impacts by means of environmental planning and management. Prepare an environmental management plan (EMP) that includes the proposed mitigation measures, environmental monitoring and reporting requirements, related institutional or organizational arrangements, capacity development and training measures, implementation schedule, cost estimates, and performance indicators. Key considerations for EMP preparation include mitigation of potential adverse impacts to the level of no significant harm to third parties, and the polluter pays principle.	As per national regulations, the environmental impact assessment report of individual project involves development of environmental management plan along with other plans as specified in the TOR. For construction projects the Environment Management Plan consist of all mitigation measures for each activity to be undertaken during the entire project cycle to minimize adverse environmental impact. The EMP also delineate the compliance requirements of various environmental regulations.
5.	Carry out meaningful consultation with affected people and facilitate their informed participation. Ensure women's participation in consultation. Involve stakeholders, including affected people and concerned nongovernment organizations, early in the project preparation process and ensure that their views and concerns are made known to and understood by decision makers and taken into account. Continue consultations with stakeholders throughout project implementation as necessary to address issues related to environmental assessment. Establish a grievance redress mechanism to receive and facilitate resolution of the affected people's concerns and grievances regarding the project's environmental performance.	The process of meaningful consultation provides opportunity to key stakeholders' groups such as project affected people, NGOs, regional agencies/authorities and interest groups to provide their input into the planned development, especially on those impacts that directly or indirectly affect people's livelihoods. Moreover, it provides opportunities to address public grievances and receive feedback and thus strengthens the overall EIA process, project and the EIA documentation. As per the EIA notification of 2006 and its subsequent amendments, the requirement of public hearing/consultation is conducted based on the type of project and consultation is carried out (if applicable) as per the procedures laid down in the act. Whereas the procedure for consultations and information disclosures for land acquisition process are laid down in Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act (RFCTLARR Act) 2013. A Centralized Public Grievance Redress and Monitoring System (CPGRAMS), established by GoI, is used to address the grievances at institutional level. A dedicated officer at senior level is assigned to handle the grievances and respond in a timely manner.
6.	Disclose a draft environmental assessment (including the EMP) in	Information disclosure to terminology is used in reference to making necessary project specific information

No.	Environmental Policy Principle	Safeguard Consideration in Indian Regulatory Framework
	a timely manner, before project appraisal, in an accessible place and in a form and language(s) understandable to affected people and other stakeholders. Disclose the final environmental assessment, and its updates if any, to affected people and other stakeholders.	available/accessible to interested and affected parties in timely and understandable manner as part of stakeholder engagement process. This process acts as a constructive approach towards stakeholder engagement. As per GoI norms, the Right to Information Act, 2005 is key empowers the stakeholders and citizens with accessibility of relevant project documents at various stages of projects. The accessibility towards EIA report and summary of EIA before the public hearing (if applicable) is also governed by the rules laid in the EIA notification of 2006 and its subsequent amendments. The public should be informed about the places or offices where the public could access the draft Environmental Impact Assessment report and the Summary of Environmental Impact Assessment report. The medium of information will be by advertising the same in one major National Daily and one Regional vernacular Daily / Official State Language. In places where the newspapers do not reach, the Competent Authority should arrange to inform the local public about the public hearing by other means such as by way of beating of drums as well as advertisement / announcement on radio / television.
7.	Implement the EMP and monitor its effectiveness. Document monitoring results, including the development and implementation of corrective actions, and disclose monitoring reports.	As per EIA notification of 2006 and its subsequent amendments act, the EIA report includes the technical aspects of monitoring requirements including methodologies, frequency, location, of monitoring as well as reporting schedules. The project management authority is required to submit half-yearly compliance reports in accordance with the stipulated environmental clearance terms and conditions. The hard and soft copies are to be submitted to the regulatory authority, on 1st June and 1st December of each calendar year. All such compliance reports submitted by the project management are public documents and copies of the same shall be given to any person on application to MoEF&CC or the concerned regulatory authority. The latest such compliance report shall also be displayed on the web site of the concerned regulatory authority.
8.	Do not implement project activities in areas of critical habitats, unless (i) there are no measurable adverse impacts on the critical habitat that could impair its ability to function, (ii) there is no reduction in the population of any recognized endangered or critically endangered species, and (iii) any lesser impacts are mitigated. If a project is located within a legally protected area, implement additional programs to promote and enhance the conservation aims of the protected area. In an area of natural habitats,	As EIA notification 2006 and amendment, if any project is located in whole or in part within 10 km from the boundary of Protected Areas notified under the Wild Life (Protection) Act, 1972, Critically Polluted areas as identified by the Central Pollution Control Board from time to time, Eco-sensitive areas as notified under section 3 of the Environment (Protection) Act, 1986, and inter-State boundaries and international boundaries the project will be categorized as Category A and will require detailed EIA study and EC from MOEF&CC. Provided that the requirement regarding distance of 10 km of the inter-State boundaries can be reduced or completely done away with by an agreement between the respective States or U.Ts sharing the common boundary in case the activity does not fall within 10

No.	Environmental Policy Principle	Safeguard Consideration in Indian Regulatory Framework
	there must be no significant conversion or degradation, unless (i) alternatives are not available, (ii) the overall benefits from the project substantially outweigh the environmental costs, and (iii) any conversion or degradation is appropriately mitigated. Use a precautionary approach to the use, development, and management of renewable natural resources.	kilometers of the protected area, critically polluted area, eco sensitive area. The applicability and compliance towards provisions of Forest (Conservation) Act, 1980, amended 1988, The Indian Forest Act, 1927, The Biological Diversity Act, 2002 and related, The Wildlife (Protection) Act, 1972 and amendments, and Wetland (Conservation and Management) Rules 2010 is to be ensured in parallel to the requirement of EIA notification 2006 and amendments.
9.	Apply pollution prevention and control technologies and practices consistent with international good practices as reflected in internationally recognized standards such as the World Bank Group's Environmental, Health and Safety Guidelines. Adopt cleaner production processes and good energy efficiency practices. Avoid pollution, or, when avoidance is not possible, minimize or control the intensity or load of pollutant emissions and discharges, including direct and indirect greenhouse gases emissions, waste generation, and release of hazardous materials from their production, transportation, handling, and storage. Avoid the use of hazardous materials subject to international bans or phaseouts. Purchase, use, and manage pesticides based on integrated pest management approaches and reduce reliance on synthetic chemical pesticides.	Section 9 of Environmental Protection Act (known as an umbrella legislation that supplements existing environmental regulations) regulates handling of hazardous substances and identifies persons responsible for discharges and pollution prevention and Section 7 prohibits operations that emit pollutants in excess of standards. The applicability and compliance towards The Noise Pollution (Regulation and Control) Rules, 2000, Solid Waste Management Rules, 2016, Plastic Waste Management Rules 2016, E-waste (Management) Rules, 2022, Construction and Demolition Waste Management Rules, 2016 (Rule 4 and 5 specifies the duties of waste generator, and duties of service provider and their contractors. These are to be followed during the construction), Water (Prevention and Control of Pollution) Act, 1974 and amendments, and Air (Prevention and Control of Pollution) Act 1981 and subsequent amendments is to be ensured. Hazardous waste rules (construction phase primarily and operation phase) necessitate Authorization for SPCB. Disposal standards are notified under the Environment (Protection) Act, 1986 and by other entities like BIS. Environmental Standards. Ambient Air Standard: https://cpcb.nic.in/uploads/National_Ambient_Air_Quality_Standards.pdf Ambient Noise Standards: https://cpcb.nic.in/displaypdf.php?id=Tm9pc2UtU3RhbmRhcmRzL25vaXNlX3J1bGVzXzIwMDAucGRm Ground Water Quality Standards: https://cpcb.nic.in/wqm/BIS_Drinking_Water_Specification.pdf Surface Water Quality: https://cpcb.nic.in/wqm/Designated_Best_Use_Water_Quality_Criteria.pdf Waste Water Standards: The Environment (Protection) Rules, 1986: https://cpcb.nic.in/displaypdf.php?id=R2VuZXJhbFN0YW5kYXJkcy5wZGY=

No.	Environmental Policy Principle	Safeguard Consideration in Indian Regulatory Framework
10.	Provide workers with safe and healthy working conditions and prevent accidents, injuries, and disease. Establish preventive and emergency preparedness and response measures to avoid, and where avoidance is not possible, to minimize, adverse impacts and risks to the health and safety of local communities.	The Occupational and Community Health and Safety management is a systematic process to identified, assessed and mitigated the possible impacts on safety, wellbeing and security of workers, nearby habitants and community due to proposed projects. The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996 and the Cess Act of 1996, governs the health and safety issues during the construction stage. All the establishments who carry on any building or other construction work and employs 10 or more workers are covered under this Act; the employer of the establishment is required to provide safety measures at the building or construction work and other welfare measures, such as canteens, first-aid facilities, ambulance, housing accommodation for workers near the workplace, etc. The National Policy on Safety, Health and Environment at Workplace (February 2009), provides statutory framework on Occupational Safety and Health to employer for designing suitable control system for compliance, enforcement and incentives for better compliance.
11.	Conserve physical cultural resources and avoid destroying or damaging them by using field-based surveys that employ qualified and experienced experts during environmental assessment. Provide for the use of “chance find” procedures that include a pre-approved management and conservation approach for materials that may be discovered during project implementation.	Any movable or immovable object or site of historical, architectural, religious, or other cultural significance is regarded as physical cultural resource (PCR). Physical cultural resources are important as sources of valuable scientific and historical information, as assets for economic and social development, and as integral parts of a. people’s cultural identity and practices. The Ancient Monuments and Archaeological Sites and Remains Act 1958 updated as per Ancient Monuments and Archaeological Sites and Remains (Amendments and Validation) Act, 2010, envisage the requirement of Permit for activity near ancient/protected monuments, chance findings. The area within the radius of 100 m and 300m from the Protected Property is designated as Protected area and Controlled Area respectively. No development activity (including building, mining, excavating, blasting etc.) is permitted in the Protected Area and developmental activities likely to damage the protected property is not permitted in the Controlled Area without prior permission of the Archaeological Survey of India. Activities in the protected area must not be undertaken. If activities are to be done in the controlled area of protected properties, then the implementing agency/line department needs to take the necessary clearance from ASI.

Source:
ADB SPS
Indian Regulatory Framework
Environmental Protection Act
Environmental Impact Assessment Notification 2006 & it’s subsequent amendments.
Ambient Air Standard: https://cpcb.nic.in/uploads/National_Ambient_Air_Quality_Standards.pdf
Ambient Noise Standards:
https://cpcb.nic.in/displaypdf.php?id=Tm9pc2UtU3RhbmRhcmRzL25vaXNlX3J1bGVzXzIwMDAucGRm
Ground Water Quality Standards: https://cpcb.nic.in/wqm/BIS_Drinking_Water_Specification.pdf

Surface Water Quality: https://cpcb.nic.in/wqm/Designated_Best_Use_Water_Quality_Criteria.pdf
Waste Water Standards:
The Environment (Protection) Rules, 1986:
https://cpcb.nic.in/displaypdf.php?id=R2VuZXJhbFN0YW5kYXJkcy5wZGY=

III. ANTICIPATED ENVIRONMENTAL IMPACTS

27. Depending on the proposal for the component (i.e., whether greenfield or brownfield; extent of construction and demolition requirements), the nature of impact on surrounding environment may vary to some extent. Therefore, impact identification and corresponding mitigation measure should be framed in consideration of specific component concerned. In subsequent sections the potential impacts as envisaged at different phases of proposed development, i.e., preconstruction, construction, and operation phases are discussed.

A. Preconstruction Phase

28. Activities during pre-construction include site selection, preparation and approval of design, and onboarding of contractors. During this phase, the potential environmental impacts are mostly associated with the design and location of the proposed facilities. The project is categorized as B for environment and the component selection criteria will exclude components located within environmentally sensitive areas[19]. Thus, the environmental impacts during this phase are not expected to be significant for the proposed sites.

29. **Regulatory requirements.** Necessary consent/permission (like tree cutting approval from local authority/forest department if tree removal is required, permission from Central Ground Water Board for water extraction or any other concerned authority for abstraction of ground/surface water, labor licenses from Labour Department and labor insurance etc.) as applicable to the components prior to site preparation or construction are required to be secured at this stage. Therefore, EA/contractor will ensure that all necessary government permits required prior to site preparation or construction are secured within pre-construction phase. The details of regulatory requirements are provided in Table 2 of this EARF.

30. **Worker's Camp Siting.** Poor siting and layout of workers camp (if located outside of proposed area premise) may cause loss of agricultural produce if sited on cultivable land, health hazard to workers due to poor hygiene condition and nearby community due to improper management of waste and effluent; contamination to surface and ground water bodies in case sited near water bodies, local drainage problem, fire, electrical and other safety risks etc. The location, layout and basic facility provision of each labor camp should be well planned by contractor and approved by project authority (executing/implementing agency) prior to development of camp. The camps will be planned about 500 m (or at a distance as suggested by concerned authority like forest department, wetland authority, etc.) away from water bodies, residential areas, forest area, or any environmentally sensitive areas, etc. If the camps are located within components premises, they should be adequately barricaded. Contractors will prepare solid waste and wastewater management plan that includes collection, storage, and disposal subject to the review and approval of the project authority (executing/implementing agency).

31. **Utility Shifting.** Unplanned shifting of public utilities due to the proposed interventions may cause disruption of utility services to local community. All efforts will be made by project

[19] Source: Consultation with Project Authorities

authority (executing/implementing agency) to reduce the duration of utility shifting impact (if any). All utilities should be shifted before start of construction.

32. **Plan for continuation of operation of existing facility.** In case the interventions are planned within existing premises of an ongoing facility, necessary plan will be developed by project authority (executing/implementing agency) so that no impact on day-to-day operation of existing facility is caused due to the construction works and associated incremental traffic.

33. **Heritage and archaeology.** If the proposed components are located in the vicinity of any archaeological/ cultural resources,[20] then the project authority (executing/implementing agency) will be responsible for siting and designing the project to avoid any significant damage to physical cultural resources. Such resources likely to be affected by the project will be identified, and qualified and experienced experts will assess the project's potential impacts on these resources (heritage impact assessment) using field-based surveys as an integral part of the environmental assessment process. Additionally, the contractor should develop a protocol for chance finds during construction in consideration of the Ancient Monuments and Archeological Sites and Remains Act (1958) and subsequent amendments.

34. **Climate and Disaster resilient infrastructure.** All the proposed components shall be designed to be resistant against earthquake, high wind, landslide, and possible floods. The following climate and disaster resilient infrastructure/materials shall be considered for all components:

(i) High Albedo (solar heat reflective) paint over concrete roof slab
(ii) Acoustical insulation for metal roofing system in multi-purpose halls
(iii) Perforated (Acoustical) Gypsum false ceiling in multi-purpose halls
(iv) Elastomeric membrane water proofing for concrete chajjas and canopies
(v) Low volatile organic compound (VOC) acrylic emulsion paint for interior walls and ceilings
(vi) Laminated wooden flooring in multi-purpose hall stage portion
(vii) High pressure laminate sheets (1.5 mm thick) for door shutters
(viii) Epoxy resin-based flooring for laboratory rooms
(ix) Rainwater harvesting tank
(x) Solar panels
(xi) Septic tanks

B. Construction Phase

35. **Land-use, topography, and drainage.** Since the proposed interventions will not be taken up in environmentally sensitive areas and expected to be in urban/habitation areas, therefore it may be anticipated that no significant change in land use would occur. Due to the site preparation, i.e., levelling of land, cutting and filling activities, the topography and drainage pattern of the project footfall area are likely to get affected; however, such impacts are anticipated to be localized. Provision for managing the excess earth, keeping adequate drainage condition should be considered in project design to rule out possibility of localized waterlogging by creating unhygienic condition or flooding by affecting surrounding environment.

[20] SPS,2009: Defined as movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Physical cultural resources may be located in urban or rural settings and may be above or below ground or under water. Their cultural interest may be at the local, provincial, national, or international level.

36. **Air Quality.** During construction phase, suspended particulate matter is anticipated to be key air pollutant, which is likely to be generated during the site development activities such as levelling of land, cutting and filling activities, transportation of construction material to the project site from various sources etc. Also, due to the increased construction vehicle movements, operation of equipment and Generators may result in generation of Gaseous Emissions like NOx, SO_2 and CO. Impacts on other nearby sensitive locations like school, college, hospital etc. if present in the proximity (say within 100 m) for a temporary period of the construction. These impacts need to be mitigated by adoption of necessary measures such as maintaining the machineries and vehicles in good condition complying with the standards/ guidelines of CPCB, obtaining timely 'pollution under control (PUC)' certificates, paving of approach roads under use onsite and offsite, sprinkling of water etc. As the impacts are likely to be localized in nature, the areas outside the project boundary might not face any significant adverse impact with respect to ambient air quality.

37. **Noise generation.** The operation of construction machinery such as rock drills, pneumatic tools, concrete mixers, cranes, generators, pumps, compressors, vibrators, etc., are likely to be the main sources of noise vibration during the construction phase. Due to the construction activities, the anticipated noise and vibration generation is envisaged to be mostly confined to the proposed area premises and not anticipated to have significant adverse impacts on the surrounding environment. However, generation of noise/vibration could cause considerable impact in case the proposed development is planned within the premise of any existing facility or any other noise sensitive feature like any other school/college/institute or healthcare facility is in nearby areas (say 100 m). Therefore, adequate measure for managing such impact needs to be in place such as maintenance of the machineries/engines, acoustic barrier around the construction site boundary etc. In addition to noise, in case generation of significant vibration is perceived (like in case blasting is involved at any site), impact of vibration on nearby buildings (risk of structural damage) needs to be assessed and mitigation measures needs to be adopted accordingly. Statutory permissions for blasting need to be obtained from the competent authority prior to commencement of blasting activities and the conditions stipulated in the permission letter needs to be complied.

38. **Land and Soil.** Removal of topsoil is envisaged during construction stage as construction of new buildings will be involved. In addition to that, impact on topsoil may be caused if workers camp, stockyards etc. located on fertile land and if haul roads and traffic detours during construction are routed through agricultural land. In case of vegetation removal, soil erosion due to surface run off also may increase. However, such types of impacts will be short term and can effectively be managed by adopting mitigation measures like scrapping the topsoil and storing it in favorable conditions not to lose its fertility, reusing removed topsoil in suitable places, avoiding agricultural land for material transportation, restoring the compacted soil by loosening them, if any, taking up plantation activities is incidental areas, judicious siting of workers camp/stock yards etc.

39. **Impact on Water Resource:** During construction phase, water will be required for construction of structures, sprinkling for dust suppression, domestic and non-domestic uses of the construction workers/camps etc. The abstraction of ground water should be avoided by the contractor to the extent possible and in case no alternative option is available, permission from competent authority needs to be obtained prior to extraction of ground water should. Necessary permission should be secured by the contractor in case of abstraction of surface water as well. During construction phase, deterioration of water quality may occur due to siltation, disposal of untreated liquid waste, solid waste from the construction sites/ camps, poor handling of material

or construction and demolition (C&D) waste and/or subsequent surface runoffs. Therefore, proper waste and wastewater management plan should be in place which will be implemented by the contractor.

40. **Construction Debris/Waste.** The proposed components may generate varied quantum of construction and demolition (C&D) waste during site development and construction work. The quantum of C&D waste is anticipated to be more in cases where construction of new facilities will be taken up by demolishing existing structures. The C&D waste may also contain hazardous material like asbestos. Therefore, proper segregation, temporary storage, handling, transportation and disposal in conformation with regulatory requirement needs to be ensured by contractor.

41. **Terrestrial Vegetation/Trees:** Since the proposed facilities will not be planned in environmentally sensitive areas, no significant impact on natural habitat or ecologically important areas are anticipated at this stage. However, due to the proposed development, felling of trees and vegetation covers are envisaged. Subsequently, impact on associated biodiversity (like small insects, herpetofauna, avifaunal and arboreal species etc.) due to loss of habitat may occur. Improper management of waste/effluent may also lead to contamination of waterbodies by causing impact on habitat conditions for aquatic species. However, such impact is expected to be localised and mitigated by avoiding unnecessary clearance of vegetation / cutting of trees, not releasing untreated waste into the water bodies, compensatory plantation activities, in the projects' nearby areas. The building layout will be superimposed on the plot map to identify the green areas, if any that can be saved at the design stage itself.

42. **Construction Camp**: Poor site selection and poor camp management may have several negative impacts on the environment, including the loss of vegetation due to the use of wood as a fuel source for cooking, deterioration in the quality of nearby surface water bodies and soil quality due to improper wastewater and solid waste management, threat of spread of communicable diseases among the workers and the host communities. The laborers need to be made aware of the 'dos and don'ts' to avoid deterioration of surrounding environment, provide safe cooking fuel / provisions to avoid burning of wood, proper gender segregated sanitation facilities, provisions for treatment of waste etc.

43. **Workers and Community Health and Safety:** It is anticipated that there might be, temporary, localised, and moderate environmental impacts during site preparation, excavation, material transportation, storage, demolition, and construction works by means of generation of dust and gaseous pollutants, generation of noise, increase in traffic and associated traffic congestion, labour influx etc. If adequate mitigation measures are not followed, these activities might have an impact on the Workers and Community Health and Safety aspects. Impacts on health and safety can occur due to improper handling of equipment, untrained workers engaged for critical works like height work, blasting etc., unsupervised work areas/practices and unsafe working conditions, lack of usage of proper personnel protective equipment, lack of medical facilities etc. can cause accidents and safety issues. Use of personal protective equipment for workers, provision of adequate fire-fighting equipment onsite, Preparation and Implementation of Health Safety and Environment (HSE) procedures as a condition of contract, Implementation of a Fire Safety Plan prior commencement of any activities at the site, Clear marking of worksite and hazard recognition, maintenance of a high standard of housekeeping at all times etc. would be required to mitigate the impacts on occupational health and safety. To avoid community health safety impacts measures such as preparation and implementation of traffic management plan, sensitization of workers towards community cultural values etc. will be adopted. Proper site restoration plan needs to be developed and implemented after completion of construction work to avoid any potential risk to community and occupational health and safety associated with

improper site condition, contamination, waste dumping etc. The site-specific occupational and community Health & Safety (H&S) plans need to be prepared by civil work contractors before commencement of work and shall be cleared by the Environment and H&S Expert of EA/IA.

44. **Securing necessary Permits at construction stage:** Necessary permit as applicable to the component like (but not limited to) Consent to Establish (CTE), Consent to Operate (CTO), Hazardous Waste Authorization, Tree felling permission, Workman Compensation Policy, Pollution Under Control (PUC) certificate for construction vehicles etc. should be secured by contractor in prior as per the provisions of respective regulatory requirements. Contractor to procure construction materials only from government-approved quarries/vendors. Creation of new borrow areas, quarries, etc., for the project should be avoided; if unavoidable, contractor to obtain all necessary clearances and permissions in prior. The conditions precedents as would be stipulated in the permit/clearance documents should be strictly adhered to.

45. **Unanticipated impacts:** During implementation there can be impacts that were not anticipated in the design stage. Such impacts, if identified needs to be assessed and corrective actions need to be taken and the IEE report will need to be updated and submitted to ADB for clearance and disclosure.

C. Operation Phase

46. **Wastewater and Solid Waste Generation:** Wastewater generation in form of Sewage and Effluent has been perceived. In addition to these, surface runoff due to rainfall may also occur. Therefore, the facility should have proper mechanism for collection and segregation of sewage, effluent, and stormwater. The effluent and sewage should be stored/treated in wastewater treatment plant (i.e., septic tank/sewage treatment plant/effluent treatment plant) whereas effort should be made for proper collection and harvesting of rainwater. Quality of treated wastewater from the facility should conform the discharge standards as stipulated in the Environment (Protection) Act,1986 and Environment (Protection) Rules,1986. The solid waste in form of Municipal Solid waste, Plastic Waste, E-Waste and Hazardous waste has been anticipated. The solid waste needs to be managed and disposed of in line with the requirement as established under the respective regulations.

47. **Occupational and Community Health and Safety Risks:** Improper management of waste and wastewater may contaminate (which may include oil and grease, chemicals, hazardous material etc.) the surrounding environment of component area. Therefore, effective management (including proper treatment and disposal) of waste and wastewater needs to be ensured. Improper management may increase occupational health safety risk and community safety risk as such condition would increases the risk of exposure of the workers and community to the hazardous substance. The incremental traffic due to facility operation may expose the local community to potential accident risks and may also create traffic congestion at local level. Therefore, traffic management plan may be developed for components as necessary. In addition, all reasonable precautions need be taken, and Emergency Preparedness Plan may be developed to mitigate the potential risk in consideration of emergency situation i.e., fire, inundation, accidental release/spillage of hazardous material etc.

48. **Securing necessary Permits at operation stage:** Necessary permit as applicable to the component like (but not limited to) Consent to Operate (CTO), Hazardous Waste Authorization, Permission for Water Abstraction, Pollution Under Control (PUC) certificate for vehicles, Fire No Objection Certificate (NOC), Occupancy Certificate, etc. should be secured by project authority

prior to facility operation and renewed time to time as per the provisions of respective regulatory requirements. The conditions precedents as would be stipulated in the permit/clearance documents should be strictly adhered to during implementation (in all stages) under the project.

IV. ENVIRONMENTAL ASSESSMENT FOR COMPONENTS

A. Environmental Guidelines and Criteria for Component Selection

49. The project authority will ensure that all components and components are appraised, selected, and approved in compliance with ADB's requirements (as per following selection criteria):

(i) Design and selection of components will consider the input from public consultations if any
(ii) All components involving activities included in the ADB Prohibited Investment Activities List (list provided in Appendix 1) must be excluded from the project.
(iii) All components/activities that trigger environment Category A (e.g. components/activities with significant adverse environmental impacts that are irreversible, diverse, or unprecedented) must be excluded from the project.
(iv) Components/activities that result in the significant conversion or degradation of natural habitat or which are within a critical habitat[21] must be excluded from the project.
(v) No component will be located within core, buffer and ecologically sensitive zones legally protected areas such as national parks, wildlife sanctuaries, conservation/elephant/tiger reserves, forest land (reserved and protected forest), ecologically sensitive areas, ecologically sensitive zones, Coastal Regulation Zones, and Ramsar sites etc;
(vi) Component components will not be located in forest land or if any damage is envisaged to any rare or endangered species present in the land parcel.
(vii) No component will be located within areas that have been identified by MoEF&CC or State Government or expert institutions under the GoI /GoM like Wildlife Institute of India (WII) etc. as potential or priority habitats/clusters for critically endangered species unless it has been clearly demonstrated to ADB through an ecological assessment undertaken by an external expert, in consultation with relevant biodiversity stakeholders, that the project activity will not have significant adverse impacts on the ecology of the area.
(viii) No sub project will be located within other internationally or nationally recognized biodiversity sites including key biodiversity areas, important bird areas, wildlife corridors.
(ix) No component will result in significant damage to physical cultural resources or require any physical cultural resources to be removed from their current location.

[21] As described in ADB's Safeguard Policy Statement (2009), critical habitat is a subset of both natural and modified habitat that deserves particular attention. Critical habitat includes areas with high biodiversity value, including habitat required for the survival of critically endangered or endangered species; areas having special significance for endemic or restricted-range species; sites that are critical for the survival of migratory species; areas supporting globally significant concentrations or numbers of individuals of congregatory species; areas with unique assemblages of species or that are associated with key evolutionary processes or provide key ecosystem services; and areas having biodiversity of significant social, economic, or cultural importance to local communities. Critical habitats include those areas either legally protected or officially proposed for protection, such as areas that meet the criteria of the World Conservation Union classification, the Ramsar List of Wetlands of International Importance, and the United Nations Educational, Scientific, and Cultural Organization's world natural heritage sites

(x) No component will be located within internationally or nationally recognized cultural, archaeological or heritage sites including ASI and state protected monuments and their prohibited, regulated or controlled areas as are defined by the relevant statutes.
(xi) Environmental screening of the components will be done using the applicable rapid environmental assessment (REA) checklist (see appendix 2)
(xii) Components which have been categorized as 'B' for environment based on SPS 2009 will not be taken up unless assessed in accordance with safeguard requirements for environment[22] and confirmed by ADB following review and clearance of the IEE report;
(xiii) All necessary national, state and local government approvals and/or clearances (if required) will have been obtained for the component and shared with ADB prior to implementation.
(xiv) No components will be located on flood plains or reclaimed water bodies or wetlands. The sub projects will be located above the high flood level of that region.
(xv) Components will not be located in areas of social conflicts.

B. Screening and Categorization

50. Screening using the REA checklist will be conducted to confirm the category of components (for environment safeguards) under the project. Sample REA Checklists are provided in Appendix 2 and needs to be prepared per component site conditions.

51. The scale and magnitude of impact of the components on various environmental components will be determined in consideration of the current land use, prevailing site surrounding sensitivity, proposed component/s interventions, likelihood of occurrence of impact, component/s phase for the perceived impact-risk, extent of impact-risk etc. Also, national regulations as per GOI; and ADB safeguard requirement will be reviewed to determine categorization of the components and accordingly, the environmental assessment (including the EMP) and requisite environmental permits applicable, if any shall be processed under the project.

52. Based on the screening, the environmental category of the component/s will be ascertained with concurrence of ADB, and the findings leading to the categorization of the component/s as Category B will be documented. Once the Environment safeguards category is decided as 'B', the Initial Environmental Examination (IEE) Report for the component will have to be prepared as per the SPS,2009 requirements. The IEE report will be reviewed, cleared by ADB and then disclosed in both ADB and project authority websites prior to commencement of the construction works.

C. Preparation of Environmental Assessments Reports

53. **Initial Environmental Examination (IEE) Report.** An Initial Environmental Examination (IEE) for Category B components is required as per ADB SPS 2009. IEE describes the studies conducted to identify the potential environmental impacts of the proposed development and is prepared when impacts are unlikely to be highly significant and can be mitigated relatively easily. Appendix 1 of ADB SPS, 2009 (refer to footnote 18) provides the outline and contents to be followed while preparing IEEs. Also, the sample IEEs prepared during project preparation provide

[22] Refer to Appendix 1 of ADB SPS 2009 available at https://www.adb.org/sites/default/files/institutional-document/32056/safeguard-policy-statement-june2009.pdf

a good sample which can be followed for preparation of environmental assessments in subsequent components.

54. Baseline information with respect to physical, biological and social components will be gathered for the component. During the process of collection of baseline information, meaningful consultations with concerned stakeholder will be carried out in form of Key Informant Interview (KII) or Focussed Group Discussion (FGD). Potential environmental impacts will be examined in all project phases, namely, design, pre-construction, construction and operation phases.

55. For components involving facilities and/or business activities that already exist of are under construction, the PMU will undertake an environment audit including on-site assessment, to identify gaps in environmental safeguards compliances, if any with respect to the requirements of GoI regulations and ADB SPS, 2009. Where noncompliance is identified, a corrective action plan which defines necessary remedial actions, the budget for such actions, and the time frame for resolution of noncompliance will be prepared. The audit report and CAP will be made part of the IEE reports. The indicative checklist for conducting audit/assessment of existing facility is provided in Appendix 3.

D. Preparation of Environmental Management Plan

56. As per the requirement of ADB SPS 2009, an Environmental Management Plan (EMP) is mandated as part of the IEE. EMP outlines the environmental management practices that should be followed to reduce temporary impacts associated with any components and to enhance positive impact on the environment while a project will be implemented. The EMP also establishes the requirement of environmental monitoring which would be carried out to evaluate the adequacy of EMP and adopt corrective actions, if any required. Specific mitigation strategies, environmental monitoring requirements, and relevant institutional structures, including budgetary provisions for EMP implementation will be delineated in EMPs. Where impacts and risks cannot be avoided or prevented, mitigation measures would be identified to ensure that the component/s is implemented by Contractor and Project Authority (Executing/Implementing Agency) in conformance with applicable regulatory requirements pertaining to the Components.

E. Review of Environmental Assessment Reports and EMPs

57. All IEEs including EMPs will be submitted to ADB for review, clearance and disclosure prior to bid invitation. The bid documents will include the requirement to incorporate necessary resources to implement the EMP. The IEE including EMP will form part of the bid and contract document, and, if required, will need to be further updated during the construction phase of a component considering change of location/design/scope, which were not envisaged during the environmental assessment for different components under the project.

58. Executing agency is primarily responsible for identifying, prioritizing, formulating, appraising, approving, and implementing components in accordance with technical, financial, and economic appraisal criteria, including social and environmental criteria, mutually agreed upon between ADB and the borrower/executing agency. Executing agency will submit all IEEs to ADB for review and disclosure.

V. CONSULTATION, INFORMATION DISCLOSURE

59. ADB's SPS (2009) requires components to carry out meaningful public consultation on an ongoing basis. All components will need to be community involved, and as such consultation should be built into and central to the component design process from initiation onwards. However, meaningful consultation per ADB SPS 2009 requirements is also mandatory for those components which are Category 'B' and will need to be documented in the IEE report. Public consultation for these components will: (i) begin early and carry on throughout the project cycle; (ii) provide timely disclosure of relevant information, understandable and accessible to people; (iii) ensure a free and un-intimidated atmosphere without coercion; (iv) ensure gender inclusiveness tailored to the needs of disadvantaged and vulnerable groups; and (v) enable the incorporation of all relevant views of affected people, and stakeholders into process of decision making, mitigation measures, the sharing of development benefits and opportunities and implementation issues. It will then need to continue throughout the component implementation. EA will ensure that the communications strategies and consultations plan will refer to the requirements of ADB's SPS 2009 as follows:

(i) Disclosure of relevant information that is understandable and accessible to affected people.
(ii) Consultation undertaken in an atmosphere free of intimidation or coercion.
(iii) Process of consultation that is gender inclusive and responsive, fit to the needs of disadvantaged and vulnerability groups.

60. For Category 'B' components consultations at different stages may take the form of public meetings in villages, focus groups e.g., for women, or one-on-one consultations with adjacent residents, regulatory bodies etc. Consultations for each component must ensure a representative percentage of the local community are consulted, as well as gender balance and representation of vulnerable groups. If that is not possible at a public consultation a separate gender focus group must be held to ensure the concerns of women and other identified vulnerable groups (e.g., below poverty line) are heard. Meaningful consultations will inform participants of details of the component and the possible environmental and social impacts, collect views and opinions from affected persons, and ensure the component responds to them. The dates, attendees, male/female split, details of any participants vulnerabilities, topics covered, and views and opinions raised should be recorded and included in the IEE report, along with details of how EA /the component has responded to them.

61. The key stakeholders to be consulted during component preparation and implementation include:

- Component beneficiaries, and project affected persons;
- elected representatives, community leaders, and representatives of community-based organizations; business and industrial associations, etc.;
- relevant local nongovernment organizations (NGOs);
- local government and relevant government agencies, including the authorities responsible for land development, protection and conservation of forests and environment, archaeological sites, religious sites, and other relevant government departments (regulatory, administration and infrastructure services related);
- residents, shopkeepers, businesspeople, farmers, fisheries (owners and workers) who live and work near sites where facilities will be built; custodians, and users of socially and culturally important buildings; and

- Vulnerable groups, women groups.

62. A variety of approaches can be adopted, and stakeholders should be consulted throughout the project implementation. At minimum the following consultation activities (Table 9) should be conducted. This is indicative and component/project agencies can also adopt more effective methods and approaches, which are locally appropriate. Consultations shall be conducted in an atmosphere which is conducive to the development of the components and beneficial to the affected persons and other stakeholders. The executing and implementing agency will ensure that the consultations are free of coercion and intimidation, gender-inclusive, and tailored to the needs of disadvantaged and vulnerable groups. All the consultation events shall be documented, including gender segregated participants list, and record findings. The IEEs should reflect the feedback and concerns of consultations.

Table 9: Proposed Public Consultation Activities

Project Stage	Consultation Activities	Remarks
Component preparation	• Household level consultations through sample questionnaire surveys on needs, priorities for component preparation. • Document events, including male and female participation, record findings in IEE along with how the component responds to them.	Initial stages of component's preparation
	• Focus group discussions with people residing/working near the component sites.	During the visits to component sites
Component Development Stage	• A component level consultation workshop with all key stakeholders (at site level)	Once the draft IEE report is prepared
	• Consultations with Affected persons: Affected persons shall be consulted to ensure: • incorporate their views/concerns on compensation/resettlement assistance inclusion of vulnerable groups in component benefits; • identify assistance required by affected persons during rehabilitation, if any; and • Avoid potential conflicts for smooth component implementation. It will also provide adequate opportunities for consultation and participation to all stakeholders and inclusion of the poor, vulnerable, marginalized, and affected persons in the component process • Affected persons will also include persons who are affected by environmental disturbance etc. Consultation will also be needed with such affected persons.	At various stages, especially during, the preparation and implementation
Component Implementation	• Continue consultations with stakeholders throughout component implementation as required. • Following processes may be considered: • Focus group discussions with the people • residing/working near the component sites • Focus group discussions with the construction workers and construction supervision • staff (contractor, consultants and PIU)	During the EMP monitoring at work sites

Project Stage	Consultation Activities	Remarks
	• Focus discussions with commuters and general public along the roads where works are implemented • Consultations shall be documented appropriately (photographs, feedback etc.,) and reported via Environmental Monitoring Reports	

Source: ADB

63. A Stakeholder is anyone who can be affected by implementation of any components under the project. They can be internal or external stakeholders in consideration of the components. So, the process of systematically gathering and analyzing qualitative information to determine whose interest should be taken into account in the planning stage of the program is called stakeholder analysis. The analysis focuses on the stakeholder characteristics as knowledge of component, interest related to component, position for or against to component, potential alliances with other stakeholders and ability to affect the component initiation or execution. Stakeholder analysis assists in this prioritization by assessing the significance of the component to each stakeholder group from their perspective, and vice versa.

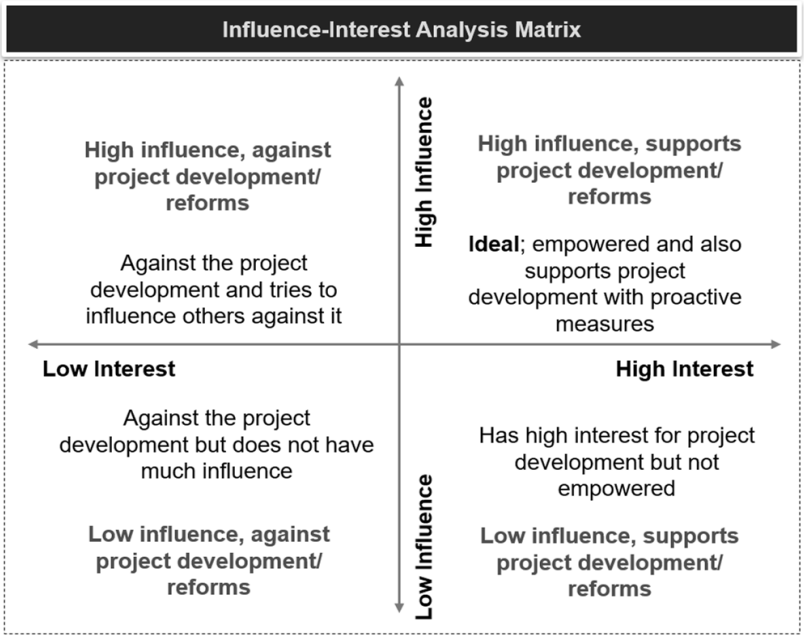


Figure 1: Stakeholder Influence-Interest Analysis Matrix
Source: ADB

64. The stakeholder engagement and communication about the proposed components should ensure continuous communication and coordination with the government departments, utility service providers, workers, community etc. throughout the component lifecycle. Stakeholder engagement is an ongoing process and to be scaled to the component risk and phase. It also includes disclosure and dissemination of information and participation of those interested or/and affected by the component, grievance redress mechanism, and ongoing reporting to concerned public and communities.

65. In case of situations like COVID-19 pandemic, in undertaking any face-to-face consultations it will need to be ensured that national COVID-19 requirements and WHO meeting and hygiene guidelines are followed, including awareness raising activities for those undertaking consultations, minimizing travel requirements, undertaking screening health checks to confirm those going in the field are not symptomatic, providing them with adequate supplies of personal hand sanitizer and masks, ensuring social distancing of at least 1m, that masks are worn at all times during consultations, and that a register of all contacts is maintained. If public meetings are not possible to convene due to COVID-19 restrictions, then the same representation should be

achieved through door-to-door consultations within communities. Consultations should also convey how project authority will ensure community health and safety during construction.

66. Aside from ADB's SPS 2009, Project Authority will also ensure that the relevant national requirements in the Right to Information Act 2005 will be complied with. EA will ensure to make a list of the participants of the consultation process including the summary of the concerns/ issues they raised and suggestions on component design, mitigation measures and monitoring, employment opportunities, and other relevant issues on implementation. Participation of women, if any, will be highlighted as well as the date and location of the consultations.

VI. GRIEVANCE REDRESSAL MECHANISM

67. The ADB SPS 2009 mandates the establishment of a project-specific, responsive, and culturally appropriate grievance redress mechanism (GRM) that is readily accessible for receiving and facilitating the resolution of environmental and social safeguards-related complaints. The GRM is designed to assist affected persons in resolving their grievances by providing an accessible and trusted platform for seeking solutions and relief related to the project's environmental and social safeguards. It is important to note that the GRM will not address matters pending in a court of law. This GRM has been developed with consideration of the existing institutional and administrative framework of the state, incorporating the needs of STs and women, ensuring cultural acceptability and gender sensitivity.

68. The fundamental objectives of the GRM are to: (i) reach mutually agreed solutions satisfactory to both the project and the affected persons for resolving environmental and social safeguards-related issues; (ii) facilitate the smooth implementation of environmental and social safeguards planning documents and prevent delays in project implementation; (iii) promote effective dialogue and open communication between the project and its stakeholders; and (iv) clearly define the roles and responsibilities of the various parties involved in the consideration and resolution of grievances.

Grievance Redress Process

69. The Project will implement a four-tier Grievance Redress Committee (GRC) mechanism to address environmental and social safeguards-related complaints. The tiers are as follows:

Tier 1: Component/Village Level Forum (VLF)

The first tier operates at the Site/Town/Village Level, leveraging the traditional political systems of the major tribal groups. The VLF will consist of the village headmen, who is supported and trusted by the villagers. The composition of this forum will mirror traditional structures like the Dorbar Shnong, Elaka Dorbar, or Nokma Mela'a. The village headmen can seek the assistance of the following:

- **Component Head:** Co-chairs the VLF and serves as Member Secretary.
- **Monitoring Officers/Staff:** Provides guidance and assistance in grievance redressal.
- **Environmental, Social, and Gender Safeguard Experts of PMC and DSC:** Offers expertise and support.
- **Contractors/Vendors/Training Providers:** Directly addresses the complaints.

Tier 2: District Level Forum (DLF)

The second tier operates at the District Level, where grievances that cannot be resolved at the village level are escalated. The DLF will consist of:

- **Deputy Commissioner:** Chair of the DLF.
- **District Planning Officer:** Serves as Member Secretary.
- **Safeguards Focal(s):** Responsible for addressing specific grievances.
- **Subject-Matter Experts:** Officers nominated based on the nature of the grievance.
- **PIU Representative:** Represents the Project Implementation Unit.
- **Component Heads/Representatives:** Contributes to resolving issues.
- **Environmental, Social, and Gender Specialists of PMC and DSC**
- **Contractors/Vendors/Training Providers:** Engages directly with the complainant to resolve issues.

Tier 3: Project Implementation Unit Level Forum (PIULF)

The third tier is at the Project Implementation Unit (PIU) level. The PLF will address grievances escalated from the District Level. The PLF will consist of:

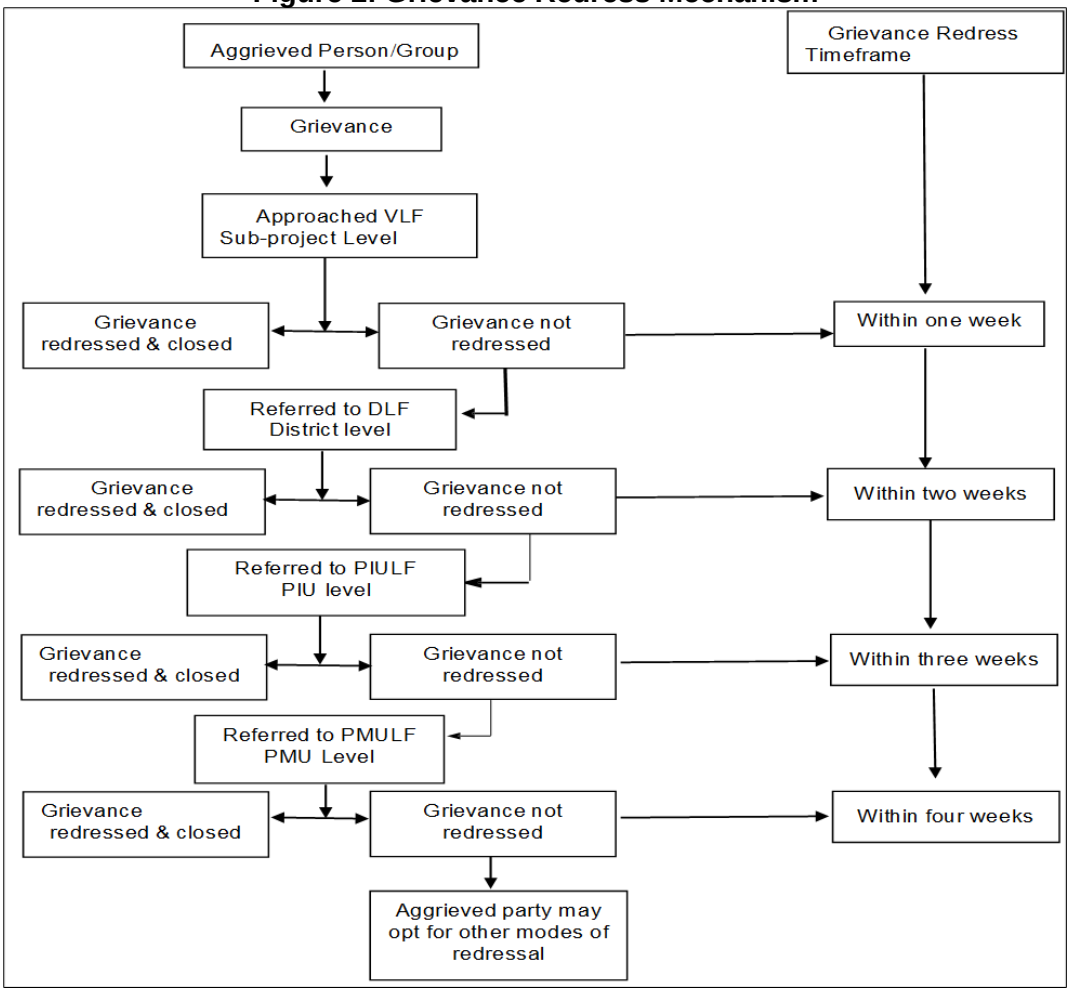
- **Chairperson/Team Leader of PIUs:** Leads the forum or delegates a representative.
- **PMU Representative:** Acts as a liaison between the PIU and PMU.
- **Safeguards Focal(s) at PIU Level:** Manages grievance resolution within the PIU.
- **Public Grievance Officer:** Oversees public grievance handling within the department.
- **District Level Forum Representative:** Ensures consistency in grievance handling.
- **Monitoring Officers/Staff of PIUs:** Provides ongoing support.
- **Environmental, Social, and Gender Specialists of PMC and DSC**
- **Contractors/Vendors/Training Providers:** Addresses issues directly with complainants.

Tier 4: Project Management Unit Level Forum (PMULF)

The final tier operates at the PMU level, dealing with grievances that cannot be resolved at the lower tiers. The PMULF will comprise:

- **Project Director:** Serves as the Chair of the forum.
- **PMU Officials:** Constitute the core members of the GRC at this level.
- **Safeguards Focal(s) at PMU Level:** Oversees grievance resolution at the PMU.
- **Additional Project Director:** Acts as the Member Secretary.
- **PIU Representatives:** Ensures coordination between PIU and PMU.
- **Contractors/Vendors/Training Providers:** Engages directly with the complainant.
- **Other Members:** May include nominated representatives of the Environmental, Social, and Gender Experts from PMC and DSC.

Figure 2: Grievance Redress Mechanism



Source: ADB consultations with PIUs & PMU.

Grievance Record Keeping

70. Records of all grievances received will be maintained by PIUs and reported to the Social Safeguards Focal in the PMU for further consolidation. These records will include the contact details of the complainants, the dates the complaints were received, the nature of the grievances, agreed corrective actions and their implementation dates, and the outcomes. The number of grievances recorded, resolved, and their outcomes will be disclosed at the PIU office by the Social Safeguards Focal. A summary of this information will also be included in the semi-annual safeguard monitoring reports submitted to ADB. All GRC meeting deliberations and decisions will be recorded and made available for public reference. If ADB is involved in grievance resolution, it will maintain records of its proceedings and disclose them to all parties engaged in the hearings. All costs associated with GRC meetings, consultations, communication, reporting/information dissemination and resolutions will be borne by the Project. Complainants will not be charged any fees for these services.

Key Elements of the GRM Under the Project

71. The project GRM includes the following key elements and procedures to ensure satisfactory functioning:

72. **Grievance Registration Process:** Grievances can be registered in person or through a letter addressed to the Chairperson of the GRC. Before registering a complaint or query, a procedural step will assess its eligibility and verify that the issues raised fall within the scope of the GRM. Complaints or queries may be submitted in various forms, from verbal communications by mobile phone to formal written complaints, or through the grievance box installed in the PIU offices. They can be submitted directly by affected person or via third parties. All grievances, regardless of their source or form, will be accepted by the focal points at the respective level and registered in a grievance register. The registration form will be available to the public, and a sample grievance registration form is provided in Appendix 8. The registration form will be available to the public, and a sample grievance registration form is provided in Appendix 8.

73. **Redressal Durations and Disclosure Procedures:** The GRM will be publicly advertised and promoted to stakeholders. The GRM will specify the expected timeframes for acknowledgment, response, and resolution of grievances. To ensure community awareness, the GRM will be publicized through IEC campaigns, materials, and wall writings. The response time for the GRC is set at a maximum of four weeks, covering all four levels. A quorum of sixty percent attendance of committee members at all levels will be required. For site and district-level GRCs, participation of community members and representatives of STs and IPP implementing agencies will be mandatory. The PIU will also ensure that Display Boards with GRM information are installed at the site, with support from civil works contractors. The GRC will convene meetings as grievances are received, with the Chairperson responsible for organizing these meetings.

74. **Transparency and Good Governance:** For transparency, community members will be selected as GRC members at the site level. Grievances that cannot be resolved at the PIU or PMU level, or where the complainant is not satisfied with the decision, may be referred to the Commissioner and Secretary, Planning Department. Consultative meetings and the distribution of leaflets to STs will be conducted to educate them about the GRM and its escalation process, encouraging their use when necessary. The PMU will also ensure a mechanism is in place to address grievances from laborers and staff deployed at project sites by Contractors.

75. **Confidentiality.** The complainant's confidentiality will be strictly maintained by limiting access to complaint details to authorized personnel only, storing physical records in locked cabinets or secure rooms with restricted access, and redacting personal identifiers (such as names and contact details) from documents and reports shared outside the immediate complaint handling team.

76. **Feedback to the complainant.** The PIU will be responsible for ensuring that decisions regarding complaints received (at any level) are reported back to the aggrieved party with an acknowledgment of the same. The PIU will maintain records of this, which will be available for review by PMU.

77. **Costs.** The PIU will cover the costs involved in resolving the complaints (meetings, consultations, communication, and reporting/information dissemination), while the PMU will handle costs related to further action on intensified grievances.

Court of Law

78. Despite the project's GRM, an aggrieved person shall have access to the country's legal system at any stage. This access can run parallel to the GRM process and is not dependent on its outcome.

ADB's Accountability Mechanism

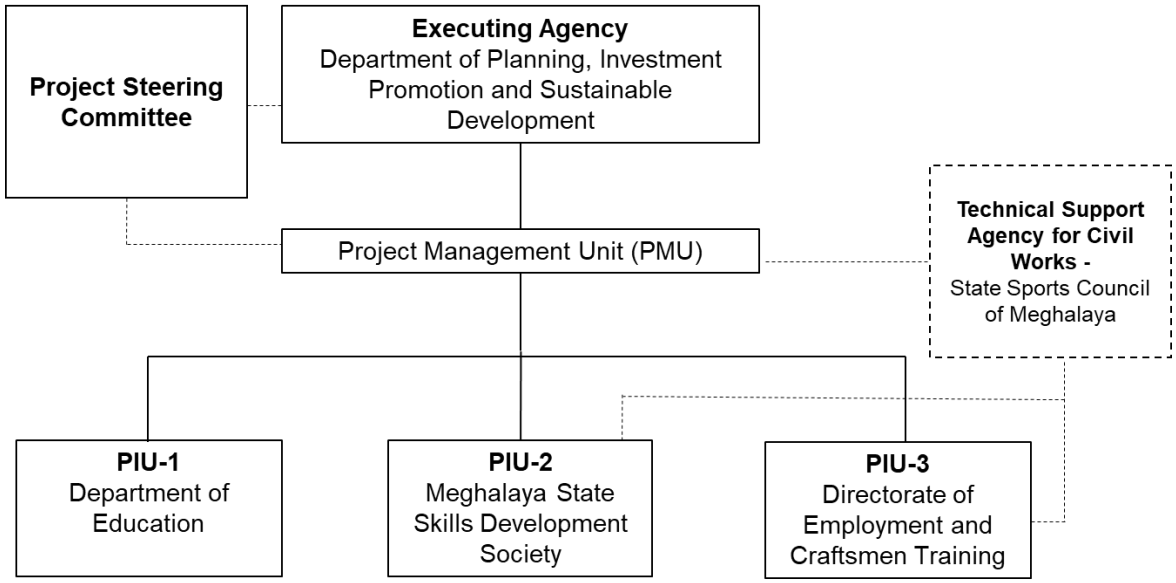
79. The person(s)/aggrieved party who are, or may, be adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The accountability mechanism provides an independent forum and process whereby people can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, the affected person(s)/aggrieved party should first make a good-faith effort to solve their problems by working with the ADB South Asia operations department including the India Resident Mission.

VII. INSTITUTIONAL ARRANGEMENT AND RESPONSIBILITIES

A. Project Organization Structure

80. The overall organizational structure of the project is shown in Figure 3.

Figure 3: Overall Organizational Structure



Source: ADB consultation with PIUs & PMU.

Table 10: Institutional Arrangement for Environmental Safeguard Implementation

Level 1 – Project site Level	**Head: Head/Principal of the Project Site**
	Members: Contractor's Environment Engineer and Health & Safety Officer, Staff nominated by Project site, Nominated Officer/Staff at level 2, Additional Supporting Staff are the Monitoring Officer/Staff at resources of PMU and DSC mentioned at level 3 below

Level 2 – District Level	**Head: Deputy Commissioner**
	Members: District Planning Officer, focal/s for safeguards, additional supporting staff are the Monitoring Officer/Staff and resources of PMC and DSC mentioned at level 3 below. Other members (such as District Forest Entity, District Urban Entity, Power Electricity, District Education and other Government entities for the monitoring of EM and H&S) to be nominated by the Head
	Supported by DSC

Level 3 – PIUs Level	**Head: Chairman of PIUs**
	Members: Monitoring Officer/Staff, focal/s for safeguards at PIU level, Additional supporting are resources of PMC and DSC mentioned at level 4 below. Other members to be nominated by the Head
	Supported by PMC

Level 4 – PMU Level	**Head: Project Director**
	Members: Addl. Project Director, 2 (two) Environment Assistants (that may be recruited), focal/s for safeguards at PMU level, Environment Specialist of PMC and DSC, Social Safeguard of PMC & DSC, Social Development (Gender) Specialist of PMC

[1]Project site implies location/facility for all civil works.

Note: PMU: Project Management Unit; PIU: Project Implementation Unit; PMC – Project Management Consultant; DSC – Design Supervision Consultant;
Source: ADB consultation with PIUs and PMU.

B. Roles and Responsibilities in Environmental Safeguards Implementation

81. **Project Management Unit.** The PMU will establish the Environment and Social Safeguards desk, comprising focal persons responsible for ensuring compliance with environmental and social safeguards requirements. This desk will be supervised by the Additional Project Director, who will report to the Project Director of SHCDM Phase II. The PMU will have the following responsibilities and will be supported by the PMC.

i. Ensure components comply with the national and local statutory and legal environmental requirements, ADB SPS 2009, EARF and environmental safeguards provisions of the ADB loan covenant;
ii. Ensure components conform to the component selection guidelines as stipulated in this EARF;
iii. Review and approve the environmental categorization of future components;
iv. Review and approve component IEE reports, including EMPs, and ensure that component IEEs and EMPs are updated based on final detailed designs and submit to ADB for review, clearance and disclosure prior to bid invitation;

v. Ensure that updated IEEs based on final detailed design are provided to the construction contractor prior to start of construction;
vi. Ensure that the IEEs including EMPs are updated in case of changes in detailed design that may occur during implementation phase, and submitted to ADB for review, clearance and disclosure;
vii. Ensure timely disclosure of draft and updated IEEs in accessible formats for the public and affected persons.
viii. Ensure that IEEs with EMPs are included in bidding documents and civil works contracts;
ix. Review and approve site-specific EMPs (SEMPs) of contractors;
x. Provide oversight on environmental management aspects of the project, and ensure EMPs and SEMPs are implemented by contractors;
xi. Establish a system to monitor environmental safeguards performance of the Project
xii. Facilitate timely and ensure overall compliance with all national and local government rules and regulations regarding site and environmental permits/clearances/approvals as well as any other environmental requirements as relevant;
xiii. With support from PMC, prepare semi-annual environmental monitoring reports (SEMRs) and submit to ADB;
xiv. Ensure availability of budget for safeguards activities;
xv. Review, monitor and evaluate effectiveness with which the EMPs, SEMPs, and Health and Safety Plans are implemented, and recommend necessary corrective actions to be taken;
xvi. Ensure adequate awareness campaigns, information disclosure among affected communities and timely disclosure of final IEEs/EMPs and SEMRs, including corrective action plans, if any, in project website and in a form accessible to the public;
xvii. Address any grievances brought through the grievance redress mechanism (GRM) described in the IEE report in a timely manner;
xviii. Undertake regular review of safeguards-related loan covenants, and the compliance during project implementation; and
xix. Organize periodic capacity building and training programs on safeguards for stakeholders, PMU, PIUs and contractors.

82. **Project Implementation Unit.** There will be three implementing agencies namely DOE[23], MSSDS, and DECT[24]. Each implementing agency will establish a PIU for the project. Each PIU will have an Environment and Social Safeguards desk comprising focal persons responsible for ensuring compliance with environmental and social safeguards requirements. The PIU will be supported by the PMC and DSC.

i. Screen and categorize components using the REA checklist and component selection criteria in this EARF
ii. Prepare IEEs for future components and ensure preparation according to this EARF and submit to PMU for review and approval.
iii. Ensure that IEEs are updated based on detailed design for review and approval of the PMU
iv. Ensure timely disclosure of draft and updated IEEs in accessible formats for the public and affected persons.
v. Review SEMPs prepared by the Contractor and endorse to PMU for approval

[23] Department of Education
[24] Directorate of Employment and Craftsmen Training

vi. Oversee environmental safeguards management aspects of projects and ensure that EMP is implemented by project implementation offices and contractors.
vii. Support the PMU in coordinating across the project components in the overall management, implementation, monitoring, and reporting of environmental safeguards compliance.
viii. Conduct regular site visits, including spot checks, to ensure the EMP and/or SEMP are properly implemented;
ix. Review EMP implementation and monitoring reports from DLF and contractors;
x. Review, monitor, and evaluate the effectiveness of the implementation of EMP, and recommend necessary corrective actions.
xi. Facilitate environmental safeguards training activities conducted by PMU for the project implementation offices, and contractors
xii. Ensure timely resolution of complaints and maintain an updated record of complaints
xiii. Prepare quarterly environmental safeguards monitoring reports to be submitted to the PMU.
xiv. Support the PMU in preparing and implementing a community awareness and participation plan, and support in preparing other informational and campaign materials.
xv. Identify any non-compliances and assist in preparing time-bound corrective action plans, if and as required.
xvi. Support all other environmental safeguards-related activities and tasks of the PMU as may be needed.

83. **District Level Forum.** The District Level Forum will assign a safeguards focal person, and will have the following roles and responsibilities supported by the DSC:

i. Facilitate consultations and coordination with government regulatory agencies such as District Forest department, etc., with regards to required clearances/NOCs/permits to ensure timely component implementation
ii. Provide oversight on environmental safeguard management, ensuring EMP implementation by project offices and contractors.
iii. Review, monitor, and evaluate EMP implementation effectiveness; recommend corrective actions.
iv. Conduct regular site visits, including spot checks, to ensure the EMP and/or SEMP are properly implemented.
v. Prepare site visit and monthly reports on EMP implementation and submit to PIU
vi. Support the PIU in preparing quarterly reports on EMP implementation for submission to PMU
vii. Ensure prompt grievance redress through the grievance redress mechanism.
viii. Support in implementing the community awareness and participation plan, and in preparing other informational and campaign materials.
ix. Identify non-compliances and assist in preparing time-bound corrective action plans as required.

84. **Project Management Consultant.** A Project Management Consultant (PMC) will be assisting the Environmental and Social Safeguards Desk at PMU and PIU level. A qualified Environment Specialist will be appointed by PMC to support project authority concerning EMP implementation, supervision, and reporting. The tasks assigned to the Environment Specialist of PMC are as follows:

i. Review component screening and categorization of the component based on this EARF and endorse to PMU for approval;
ii. Review initial environmental examination (IEE) reports prepared by the DSC including environmental management plans (EMPs) in accordance with ADB SPS and national laws, regulations, policies and guidelines and endorse to PMU for approval;
iii. Ensure relevant provisions from the updated/final IEE reports and EMPs including EMP implementation costs are incorporated in the respective bid and contract documents;
iv. Ensure the establishment of an effective grievance redressal mechanism and conduct capacity building activities for GRC members
v. Ensure timely disclosure of draft and updated IEEs in accessible formats for the public and affected persons.
vi. Review SEMPs prepared by the Contractor, guide Contractors in improving SEMPs and endorse the same for approval of PMU
vii. Together with the social safeguards experts, conduct safeguards capacity building to ensure PMU, and PIU have the capacity to implement, monitor, and report on implementation of safeguards plans;
viii. Monitor implementation of EMPs at all work sites, including all potential safeguard issues
ix. Monitor any unanticipated environmental risks or impacts that arise during construction, implementation or operation of the component that were not considered in the IEE reports and EMPs, and prepare corrective action plan; ensure that these are implemented by the contractors and reported accordingly in environmental monitoring reports to ADB;
x. Build the capacity of project staff to establish, implement, and comply with ADB SPS and the EMP
xi. Review and check the quality of data and evaluate the effectiveness with which safeguards-related mitigation measures are implemented.
xii. Recommend actions to be taken as per ADB's safeguards policies to address environmental compliance concerns
xiii. Support the PMU/PIU/Site level GRCs in resolving complaints and disputes if any.
xiv. Prepare periodic safeguards monitoring reports in line with ADB's reporting requirements.
xv. Support the PMU and PIUs in obtaining applicable statutory safeguards clearances

85. **Design Supervision Consultant.** The Design Supervision Consultant (DSC) will support design and supervision and ensure safeguard implementation at the facility/component level. A qualified Environmental Expert will be appointed by DSC to support the PIU in ensuring EMP implementation, supervision, and reporting. The tasks assigned to the Environmental Expert of the DSC are as follows:

i. Support the PIU in screening and categorizing components using the REA checklist and component selection criteria in this EARF
ii. Ensure that component design include EHS measures described in the EARF
iii. Support the PIU in preparing IEEs for future components according to this EARF, for review and approval of the PMU
iv. Support the PIU in updating IEE based on detailed design for review and approval of the PMU
v. Support the DLF in facilitating consultations and coordination with government regulatory agencies such as District Forest department, etc., with regards to required clearances/NOCs/permits to ensure timely component project implementation

vi. Ensure timely disclosure of draft and updated IEEs in accessible formats for the public and affected persons.
vii. Conduct regular site visits, including spot checks, to ensure the EMP and/or SEMP are properly implemented.
viii. Support the DLF in preparing monthly progress reports to PIU
ix. Support the PIU in preparing quarterly reports on EMP implementation for submission to PMU
x. Guide the DLF in coordinating project components for overall environmental safeguard compliance management, implementation, monitoring, and reporting.
xi. Provide technical advice and on-the-job training to contractors as needed.
xii. Support the DLF in providing oversight on environmental safeguard management, ensuring EMP implementation by project offices and contractors.
xiii. Support the DLF in the review, monitoring, and evaluation of EMP implementation effectiveness; recommend corrective actions.
xiv. Facilitate environmental safeguards training for DLFs, project offices, and contractors.
xv. Guide DLF and project offices in promptly addressing grievances through the grievance redress mechanism.
xvi. Guide DLFs in preparing and implementing community awareness and participation plans; support preparation of campaign materials.
xvii. Identify non-compliances and assist in preparing time-bound corrective action plans as required.

86. **Civil Works Contractors.** The IEE reports with EMPs will form part of respective bidding and contract documents and verified by PMU. The contractors will be required to designate their respective environment, health and safety officers (or equivalent) to ensure effective implementation of EMPs during civil works. Contractors are to carry out all environmental mitigation and monitoring measures outlined in their contracts and the IEE reports. The contractors will be required to submit to their respective PIUs, for review and approval, their SEMPs that include the following: (i) proposed sites/locations for construction work camps, storage areas, hauling roads, lay down areas, disposal areas for solid and hazardous wastes; (ii) specific mitigation measures following the approved EMP; (iii) monitoring program per EMP; and (iv) budget for SEMP and EMP implementation. No works can commence until SEMP is approved by PMU.

87. Specifically, the contractors will have the following responsibilities, among others that will be included in the bid and contract documents:

i. Ensure that the infrastructure development works are carried out in an environmentally friendly manner, minimizing environmental impacts while ensuring the health and safety of all its workers and the minimizing disturbance to the surrounding environment and communities;
ii. Consideration of ADB SPS, national regulations and the EMP during bid preparation and cost estimation;
iii. Hire or designate full time Environment, Health and Safety Officer (or equivalent) responsible for compliance to ADB SPS requirements, national regulations and the EMP. The officer/staff must have a clear terms of reference and responsibilities to ensure that all environmental and social concerns are properly managed;
iv. Ensure regular reporting to the PIU/DLF on work progress and alert management on any potential issues or delays;
v. Obtain the necessary permits and clearances, if any is required for the contractors, to implement the components;

vi. Ensure that all worker recruitment and OHS requirements are complied;
vii. Take necessary corrective action to rectify any non-conformance, including actions related to grievances;
viii. Institute an emergency plan for natural calamities/disasters and accidents at the site;
ix. Follow chance finds procedures to discovery of any physical cultural artifact.
x. Conduct joint walk-throughs with design engineers from project implementation offices and the DSC's Social Development Expert/Environmental Expert at sites/sections ready for implementation.
xi. Assist in identifying the need for detailed measurement surveys and support the PIU in jointly conducting/updating detailed measurement surveys and census surveys to arrive at the final inventory of losses.
xii. Support the DSC's Environmental Expert in updating the draft IEE and for submission to the PIU/PMU and to ADB for review and approval.
xiii. Ensure strict adherence to agreed impact avoidance and mitigation measures outlined in the EMP during implementation.
xiv. Address all safeguards complaints, ensuring recording, reporting, and follow-up for the resolution of all grievances received.

88. A copy of the EMP/approved SEMP will be kept on-site during the construction period at all times. Non-compliance with, or any deviation from, the conditions set out in the EMP/SEMP constitutes a failure in compliance and will require corrective actions.

89. PMU will ensure that bidding and contract documents include specific provisions requiring contractors to comply with: (i) all applicable labor laws and core labor standards on (a) prohibition of child labor as defined in national legislation for construction and maintenance activities; (b) equal pay for equal work of equal value regardless of gender, ethnicity, or caste; and (c) elimination of forced labor; and with (ii) the requirement to disseminate information on sexually transmitted diseases, including HIV/AIDS, to employees and local communities surrounding the proposed project infrastructure sites.

C. Institutional Capacity Development Program

90. The PMC Environment Specialist and Social Safeguard Specialist will be responsible for training the PMU, PIU, DLF and contractors. Training modules will need to cover safeguards awareness and management in accordance with both ADB and government requirements as specified in Table 10.

91. **Methodology**. The capacity building program will be participatory to the extent possible to make it more effective and will be achieved through combination of practical methodologies available such as lectures and workshops, learning by doing, role playing, group exercises, training by experts, on-the-job training and mentoring, and continuing team meetings and exercises. The PMC Environment Specialist will spearhead the designing of specific programs appropriate for the target participants or stakeholders, including the execution of these programs during the different implementation phases of the project. Pre-training and post-training assessment will be an integral part of the overall program to measure its effectiveness, and identify any other needed interventions to improve effectiveness, if necessary.

92. As fundamental component for the capacity building program, basic lectures and seminar training sessions will be provided by the PMC Environment Specialist to strengthen the awareness of project stakeholders on the requirements of ADB SPS and government

environmental laws, rules and regulations. Modules will be prepared and customized based on the skills set and needs of the different stakeholders. The entire training will cover basic principles of environmental assessment and management mitigation plans and programs, implementation techniques, monitoring methods and tools. A proposed lecture and seminar training program along with the frequency of sessions is presented in the following table 11.

Table 11: Sample Lecture and Seminar Training Program for Environmental Management

Items	Pre-construction	Construction	
Training Title	Orientation workshop	Orientation program/workshop for contractors and supervisory staff	Experience and best practice sharing
Purpose	• To make the participants aware of the environmental safeguard requirements of ADB and Government of India and how the project will meet these requirements	• To build the capacity of the staff for effective implementation of the designed EMPs aimed at meeting the environmental safeguard compliance of ADB and Government of India	• To share the experiences and best practices aimed at learning lessons and improving implementation of EMP
Contents	Module 1: • Orientation on ADB Safeguards Policy Statement and Government of India Environmental Laws and Regulations Module 2: • Environmental Assessment Process • ADB environmental assessment process, identification of impacts and mitigation measures, formulation of an environmental management plan (EMP), implementation, and monitoring requirements • Review of environmental assessment report to comply with ADB requirements • Incorporation of EMP into the project design and contracts	• Roles and responsibilities of officials/contractors/consultants towards protection of the environment • Environmental issues during construction • Implementation of EMP • Monitoring of EMP implementation • Reporting requirements	• Experiences on EMP implementation – issues and challenges • Best practices followed

Duration	1 Day	1 Day	1 Day on a regular period to be determined by PMU and PMC
Participants	PMU, PIU, DLF staff (technical and environmental) involved in the project implementation	PMU, PIU, DLF, Contractor	PMU, PIU, DLF, Contractor

Source: ADB consultation with PIUs & PMU

Table 12: Indicative Responsibilities - Environmental Safeguard Implementation

Contractor	DLF (supported by DSC)	PIU (supported by PMC and DSC)	PMU (supported by PMC)
• Preparation of site- specific Contractor's EMP (SEMP/CEMP) including Health and safety (H&S) plan in compliance with the ADB-approved Environment Management Plan (EMP) in consultation with concerned PIUs and PMU and may be reviewed by Environment, Social and Gender Experts of PMC & DSC. • Day to day H&S and EMP implementation at site during construction stage, conducted with due diligence and in compliance with EMP. The online data capturing Form will be shared with the vendors/component head/etc for capturing progress report. • Securing regulatory permits such as Labor/Work permit/license, group insurance for laborers, Contractor's All Risk Insurance (CARI), Pollution Under Control (PUC) for vehicles & machinery and renewal of the permit/license/insurance on time. And Maintenance of	• Facilitate the E&S team in meeting with various Government functional entities viz. District Forest Entity, District Urban Entity, Power Electricity, District Education and other Government entities for the monitoring of EMP and Health and safety (H&S) implementation work of contractor • Provide guidance to the contractor for achieving compliances • Maintenance of records on regulatory permits/ approvals taken by contractor during construction phase • Identify areas where specific mitigation measure is needed from safeguard point of view (Corrective Action Plan) during construction stage due to underperformance by contractor's EMP, H&S implementation practice • EMP implementation, Environmental Monitoring and compliance to	• Screen and categorize components using the REA checklist and component selection criteria in this EARF • Prepare IEE-EMPs for respective components and updating the IEEs according to changes in scope or unanticipated impacts, if any • Ensure inclusion of EMP in the bid and contract documents • Ensure continuing consultations are conducted as part of project implementation • Ensuring that the requisites clearances for environment and labour are at place prior to commencement of any work. Coordinate/consult with the component Head and also the Contractor's experts for implementing EMP diligently and effectively. • Review of SEMP/CEMP/ EHS plans prepared by Contractor, supported by the Environment, Social and Gender Experts from PMC and DSC for advice, suggestions, etc. to improve them.	• Review and approve the screening and categorization of components by PIU • Review of IEE/ updated IEEs of each component and submit to ADB. • Ensure allocation of fund for EMP implementation • Ensure inclusion of EMP in the bid and contract documents • Ensure disclosure of IEEs and SEMRs • Ensure continuing consultations are conducted as part of project implementation • Assisting the relevant stakeholders such as PIUs/DLFs/Component level in Environment safeguards related activities • Guide the field staff and PIUs in achieving compliance. • Review component progress reports submitted by DSC/ Contractors/ PMCs/ PIUs/others from

Contractor	DLF (supported by DSC)	PIU (supported by PMC and DSC)	PMU (supported by PMC)
records of regulatory permits/approvals prior to and during construction phase • Conduct Environmental Monitoring during pre-construction and construction phase with due diligence and in compliance with EMP. The online data capturing Form will be shared with the vendors/component head/etc for capturing progress report. • Provide required data/information for Monitoring Reporting to PIU and others engaged in Environmental management (like Component head) at Component level with due diligence. • Submit monthly progress report to PIU and others engaged in Environmental management (like Facility Principle) including EHS compliances along with Action Taken Report for any non-compliance, risks, issues, grievances, etc. to any Environmental matter raised by the Government/PIUs • Establish and participate in GRM with due diligence.	regulatory norms during operation phase • Submit monthly progress report to PIU • Participate in GRM • Ensure GRM remain functional through implementation period • Participate in Stakeholder consultations • Provide requisite trainings to facility level staff on environment safeguards requirements compliances for both construction and operations	• Frequent monitoring of EMP and Health and safety (H&S) implementation work of contractor, supported by PMC, DSC & Contractor's experts. • Provide guidance to the contractor for achieving compliances, supported by PMC & DSC. • Maintenance of records on regulatory permits/approvals taken by contractor during construction phase • Identify areas where specific mitigation measure is needed from safeguard point of view (Corrective Action Plan) during construction stage due to underperformance by contractor's EMP, H&S implementation practice. • EMP implementation, Environmental Monitoring and compliance to regulatory norms during operation phase, supported by PMC, DSC and Component head. • Provide inputs for preparation of Semi-Annual/Annual Environmental Monitoring Report (that will include H&S components), supported by PMC and DSC.	Environmental Unit at Component Level. • Final Review and approval of SEMP/CEMP/ EHS plans prepared by Contractor and first review by PMC & DSC. • Assist in obtaining and renewing statutory permissions that are required to be taken by the project authority • Prepare Semi-Annual Environmental Monitoring Report and review inputs from PIU, with support of PMC & DSC, and accordingly submit to ADB. • Ensure formation of GRM • Ensure GRM remain functional through implementation period. • Provide requisite trainings to PIUs, DLFs, component level and vendors Officers/staff on environment safeguards requirements compliances for both construction and operations. • Coordination with Funding Agency and Reporting • Coordination with external regulatory authorities,

Contractor	DLF (supported by DSC)	PIU (supported by PMC and DSC)	PMU (supported by PMC)
• Participate in Stakeholder Engagement with due diligence. • Participate in the public consultation mission conducted by Govt Entity, PMC or DSC. • Participate in capacity building on Environment, Social and Gender safeguard. • Maintenance of health and hygiene on site. • Identifying areas where specific mitigation measure is needed from safeguard point of view (Corrective Action Plan) during construction stage due to underperformance by contractor's EMP, H&S implementation practice.		• Participate in GRM • Ensure GRM remain functional through implementation period. • Participate in Stakeholder consultations. • Provide requisite trainings to facility level staff on environment safeguards requirements compliances for both construction and operations. • Assist in obtaining and renewing statutory permissions that are required to be taken by the project authority. • Ensure disclosure of IEEs and SEMRs	supported by PMC and DSC. • Regular Coordination with Environmental Unit at Component Level, supported by PMC and DSC. • Get regular updates from site level on regulatory compliance and EMP Implementation, supported by PMC and DSC, PIUs, DLFs and Component heads. • Taking decision on corrective measures (if required), advised by PMC and DSC.

Source: ADB consultations with PIUs & PMU

93. **Staffing and Budget:** Budget required for implementing the EARF would cover the following components:

- conducting environmental assessments of components, preparing and submitting reports, and public consultation and disclosure;
- application for government regulatory consents, approvals;
- implementation of EMP; Corrective Action (if any); and
- capacity building.

94. The PMU, PIU, DLF, PMC, DSC, and contractors will be involved in the process of safeguard implementation-supervision-reporting, securing regulatory permits, and capacity building throughout the component lifecycle.

95. Each of the IEEs prepared to date involved approximately two weeks of effort by an experienced environmental specialist, conducting the following activities: (i) site visit to assess environmental conditions and potential impacts of the scheme; (ii) liaison with relevant government agencies to obtain any environmental/social data that might be available locally (e.g. population figures, designated sites, etc); (iii) consultation with the local community to inform them about the scheme and identify their views and concerns; (iv) assessment of impacts and development of mitigation; and (v) desk study and report preparation.

96. The infrastructures involved in each scheme are generally straightforward and will take between one to two years to build. Environmental monitoring during construction will also be straightforward and will involve periodic site observations and interviews with workers and others, plus checking and review of reports and other documents. This will be conducted by the DLF and the PIU Environmental Safeguards Focal who will be assisted by an Environment Expert of the DSC. The Environment Specialist of PMC will work with the DSC Environment Expert in supporting PMU/PIU in preparing/updating/reviewing IEEs, or environmental reviews for new components. The budget therefore includes the full cost of the PMC and DSC environment specialist consultants.

97. The cost of mitigation measures and surveys during construction stage will be incorporated into the contractor's costs, which will be binding on the contractor for implementation. The surveys will be conducted by the contractors.

98. The operation phase mitigation measures are again of good operating practices, which will be the responsibility of the PIUs. All monitoring during the operation and maintenance phase will be conducted by the EA; therefore, there are no additional costs.

VIII. MONITORING AND REPORTING

99. An environmental monitoring program will be developed as part of the EMP. Environmental monitoring during component implementation is required to assess performance against agreed standards and criteria, identify any environmental harm and non-compliance issues, provide data to support compliance, and meet government approval and permit conditions and ADB requirements.

100. As with mitigation measures, the monitoring program needs to be designed for the components should be commensurate with the component's impacts and risks and focus on the indicators of compliance for significant issues. The design of the monitoring program may start

with the obligations stated in government approval and permit conditions but with additions made to ensure comprehensiveness. Depending on the component, the monitoring program specifies the parameters to be measured, monitoring/measurement methods, sampling locations, frequency of measurements, performance indicators or targets, detection limits, and thresholds limits that indicate the need for corrective action. Where external laboratories or other analytical services are required, National Accreditation Board for Testing and Calibration Laboratories (NABL) accredited or Ministry of Environment, Forest and Climate Change (MoEFCC) recognized agencies should be contracted to ensure that measurements and data provided are accurate, reliable, and defensible.

101. **Environmental Management Plan (EMP):** The EMP will be developed for each component to ensure and demonstrate compliance with the regulatory requirements and adhere to the measures suggested in the EMP. The environmental monitoring indicators will be formulated to ensure and demonstrate conformance with EMP. Monitoring of environmental and health - safety parameters and comparing them with benchmarks set by regulatory authorities will help the project authority to assess the safeguard performance and identify gaps or non-conformance and ensuring immediate actions. The environmental indicators/ parameters will be monitored during various phases of component life cycle to assess the adequacy of safeguard implementation works and to take further necessary action in case desired performance is not achieved. Additional indicators and/or monitoring parameters can further be added based on findings of site-specific conditions. The cost for implementation of environmental monitoring program will be budgeted in the EMP and Bill of Quantities (BOQs).

102. **Corrective action**. If monitoring identifies a non-conformance against component approval, permit, underperformance with respect to EMP indicators or EMP conditions, the executing agency/implementing agency or its contractor may need to develop a corrective action plan to ensure compliance. Corrective actions could range from improving the technical aspects of mitigation measures to enhancing the environmental management capacity. A corrective action plan generally:

- describes and prioritizes corrective actions to address each non-conformance
- identifies implementation responsibilities for each corrective action
- identifies a timeline for the implementation of each action
- presents a schedule for communicating the results of plan implementation to affected communities, government authorities and/or ADB
- Each corrective action should be implemented within the specified time frame.

103. PMU will monitor the overall progress of EMP implementation. The PMU, and PIU will undertake their respective roles in site inspections and document review to verify compliance with the EMP and SEMP, and progress toward the outcome. The contractor will conduct day-to-day implementation of the SEMP. The DLF will also help PIU and PMU in monitoring EMP implementation.

104. The contractor will submit monthly reports to the PIU. The monthly reports will include compilation of copies of monitoring sheets accomplished and duly signed by the contractor's EHS Officer (or equivalent) on a daily basis. A sample daily monitoring sheet which can be used by the contractor is in Appendix 5. This monitoring sheet is indicative which can be further enhanced depending on the actual situations at component construction site.

105. The PIU will submit quarterly environmental monitoring reports to PMU, which will include summary of monthly monitoring activities of contractor and results of any independent monitoring or inspection activities of the PIU. In the conduct of these independent inspection activities, PIU will be supported by PMC and DSC in this regard. A sample inspection checklist is in Appendix 6. This checklist is indicative which can be further enhanced depending on the actual situations at component construction site.

106. PMU shall consolidate quarterly reports from the and results of its independent monitoring or inspection activities. PMU shall accomplish semi-annual environmental monitoring report (SEMRs) starting from the effectivity date during the construction phase. The PMU will submit the SEMR to ADB for review and disclosure on ADB website. The template for the SEMR is attached as Appendix 4. The PMU shall prepare and submit annual environmental monitoring report during the operation phase until project completion. Submission of these reports to ADB will be within thirty (30) days from the end date of reporting period.

107. **Reporting requirements.** The reporting of monitoring results to internal (component management) and external (authorities, local people, ADB) audiences is required to verify compliance. ADB requires the borrower/client to prepare periodic monitoring reports commensurate with the component's potential risks and impacts. Environment monitoring report for this Project will be required to be submitted semi-annually to ADB for review and disclosure till issuance of Project Completion Report. Format for semi-annual monitoring report is provided as Appendix 4. A sample environment safeguards QPR checklist is in Appendix 7.

APPENDIX 1 ADB Prohibited Investment Activities List

The following do not qualify for Asian Development Bank financing:

i Production or activities involving harmful or exploitative forms of forced labor[1] or child labor[2];
ii production of or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements or subject to international phaseouts or bans, such as (a) pharmaceuticals,[3] pesticides, and herbicides[4], (b) ozone-depleting substances,[5] (c) polychlorinated biphenyls[6] and other hazardous chemicals,[7] (d) wildlife or wildlife products regulated under the Convention on International Trade in Endangered Species of Wild Fauna and Flora,[8] and (e) transboundary trade in waste or waste products[9].
iii production of or trade in weapons and munitions, including paramilitary materials;
iv production of or trade in alcoholic beverages, excluding beer and wine;[10]10
v production of or trade in tobacco;[10]
vi gambling, casinos, and equivalent enterprises;[10]
vii production of or trade in radioactive materials,[11] including nuclear reactors and components thereof;
viii production of, trade in, or use of unbonded asbestos fibers;[12]
ix commercial logging operations or the purchase of logging equipment for use in primary tropical moist forests or old-growth forests; and
x marine and coastal fishing practices, such as large-scale pelagic drift net fishing and fine mesh net fishing, harmful to vulnerable and protected species in large numbers and damaging to marine biodiversity and habitats.

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[1] Forced labor means all work or services not voluntarily performed, that is, extracted from individuals under threat of force or penalty.
[2]Child labor means the employment of children whose age is below the host country's statutory minimum age of employment or employment of children in contravention of International Labor Organization Convention No. 138 "Minimum Age Convention" (www.ilo.org).
[3] A list of pharmaceutical products subject to phaseouts or bans is available at http://www.who.int.
[4] A list of pesticides and herbicides subject to phaseouts or bans is available at http://www.pic.int.
[5] A list of the chemical compounds that react with and deplete stratospheric ozone resulting in the widely publicized ozone holes is listed in the Montreal Protocol, together with target reduction and phaseout dates. Information is available at http://www.unep.org/ozone/montreal.shtml
[6] A group of highly toxic chemicals, polychlorinated biphenyls are likely to be found in oil-filled electrical transformers, capacitors, and switchgear dating from 1950 to 1985.
[7] A list of hazardous chemicals is available at http://www.pic.int.
[8] A list is available at http://www.cites.org.
[9] As defined by the Basel Convention; see http://www.basel.int.
[10] This does not apply to project sponsors who are not substantially involved in these activities. Not substantially involved means that the activity concerned is ancillary to a project sponsor's primary operations.
[11] This does not apply to the purchase of medical equipment, quality control (measurement) equipment, and any equipment for which ADB considers the radioactive source to be trivial and adequately shielded.
[12] This does not apply to the purchase and use of bonded asbestos cement sheeting where the asbestos content is less than 20%.

APPENDIX 2 Rapid Environmental Assessment Checklist

Rapid Environmental Assessment (REA) Checklist: General

Instructions:

(i) This checklist focuses on environmental issues and concerns and includes an Asbestos Screening Tool. To ensure that social dimensions are adequately considered, refer also to ADB's: (a) checklists on involuntary resettlement and Indigenous Peoples; (b) poverty reduction handbook; (c) staff guide to consultation and participation; and (d) gender checklists.

(ii) Answer the questions assuming the "without mitigation" case. The purpose is to identify potential impacts. Use the "remarks" section to discuss any anticipated mitigation measures.

Country/Project Title: Supporting Education and Skills Development Facility —Project Preparation Support for Supporting Human Capital Development in Meghalaya Phase II
Site:

Sector Division:

Screening questions	Yes	No	Remarks
A. Project siting Is the project area adjacent to or within any of the following environmentally sensitive areas?			
▪ Cultural heritage site			
▪ Legally protected area (core zone or buffer zone)			
▪ Wetland			
▪ Mangrove			
▪ Estuarine			
▪ Special area for protecting biodiversity			
B. Potential environmental impacts Will the project cause:			
▪ impairment of historical/cultural areas; disfiguration of landscape, or potential loss/damage to physical cultural resources?			
▪ disturbance to precious ecology (e.g., sensitive or protected areas)?			

Screening questions	Yes	No	Remarks
▪ alteration of surface water hydrology of waterways resulting in increased sediment in streams affected by increased soil erosion at construction site?			
▪ deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?			
▪ increased air pollution due to project construction and operation?			
▪ noise and vibration due to project construction or operation?			
▪ involuntary resettlement of people (physical displacement and/or economic displacement)?			
▪ disproportionate impacts on the poor, women and children, indigenous peoples, or other vulnerable groups?			
▪ poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases (such as sexually transmitted infections and HIV/AIDS) from workers to local populations?			
▪ creation of temporary breeding habitats for mosquitoes and rodents that may transmit diseases?			
▪ social conflicts if workers from other regions or countries are hired?			
▪ large population influx during project construction and operation that causes an increased burden on social infrastructure and services (such as water supply and sanitation systems)?			
▪ risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during project construction and operation?			
▪ risks to community health and safety due to the transport, storage, and use and/or disposal of materials such as explosives, fuel, and other chemicals during construction and operation?			

Screening questions	Yes	No	Remarks
▪ community safety risks due to both accidental and natural causes, especially where the structural elements or components of the project are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation, and decommissioning?			
▪ generation of solid waste and/or hazardous waste?			
▪ use of chemicals?			
▪ generation of wastewater during construction or operation?			

ASBESTOS SCREENING TOOL

Screening Questions	Yes*	Maybe*	No	Remarks *For those with answers of YES and MAYBE, document the potential likelihood of asbestos being encountered.
Does the proposed project involve, or potentially involve, any of the following activities that are commonly associated with asbestos use:				
• Construction/commissioning of a new asset?				
• Refurbishment/demolition of an existing asset?				
• Post-disaster response, involving reconstruction, repair, or removal of damaged assets?				
• Maritime activities?				
• Water supply, sanitation, wastewater, sewerage, or water hygiene initiatives?				
• Earthworks, remedial activities, or solid waste management?				
• Power, telecommunications, or energy supply infrastructure?				
• Maintenance, demolition, transportation, or disposal of wastes associated with the above activities?				

Note: If you answered YES or MAYBE to the above questions, assume that the project is likely to encounter asbestos as a direct or indirect result of project-related activities and proceed to the TOOLKIT FOR SCREENING

A Checklist for Preliminary Climate Risk Screening

Country/Project Title:

Sector:

Subsector:

Division/Department:

Screening Questions		Score	Remarks[1]
Location and Design of project	Is siting and/or routing of the project (or its components) likely to be affected by climate conditions including extreme weather-related events such as floods, droughts, storms, landslides?		
	Would the project design (e.g., the clearance for bridges) need to consider any hydro-meteorological parameters (e.g., sea-level, peak river flow, reliable water level, peak wind speed etc.)?		
Materials and Maintenance	Would weather, current and likely future climate conditions (e.g., prevailing humidity level, temperature contrast between hot summer days and cold winter days, exposure to wind and humidity hydro-meteorological parameters likely affect the selection of project inputs over the life of project outputs (e.g., construction material)?		
	Would weather, current and likely future climate conditions, and related extreme events likely affect the maintenance (scheduling and cost) of project output(s)?		
Performance of project outputs	Would weather/climate conditions, and related extreme events likely affect the performance (e.g., annual power production) of project output(s) (e.g., hydro-power generation facilities) throughout their design lifetime?		

Options for answers and corresponding score are provided below:

Response	Score
Not Likely	0
Likely	1
Very Likely	2

Responses when added that provide a score of 0 will be considered low risk project. If adding all responses will result to a score of 1-4 and that no score of 2 was given to any single response, the project will be assigned a medium risk Category. A total score of 5 or more (which include providing a score of 1 in all responses) or a 2 in any single response, will be categorized as high-risk project.

Result of Initial Screening (Low, Medium, High): _____

Other Comments:

_____

_____

Prepared by: _____

[1] If possible, provide details on the sensitivity of project components to climate conditions, such as how climate parameters are considered in design standards for infrastructure components, how changes in key climate parameters and sea level might affect the siting/routing of project, the selection of construction material and/or scheduling, performances and/or the maintenance cost/scheduling of project outputs.

APPENDIX 3 Checklist for Conducting Audit/Assessment of Existing Facility (indicative and will be revised as per site conditions, if required)

S. No.	Particulars	Existing status of compliance		Details, if any
		Yes	No	
A	**Regulatory Permits/License (as per applicability)**			
1.	Documentation and reporting of record of waste generation			
2.	Permission for Water abstraction/usage			
3.	Authorization for storage of Hazardous Waste			
4.	Consent to Establish and Consent to Operate from SPCB under Water and Air Act			
5.	Permission for discharge of Wastewater/sewage			
6.	Valid NOC from fire department			
7.	Building Stability permit as per National Building code			
8.	Other Regulatory Permits/License (as per applicability)			
9.	Land ownership documents in name of project authority			
B	**Others**			
10.	Internal grievance redress mechanism for workers and community:			
11.	Availability of well experienced and trained staffs for Waste and wastewater Management:			
12.	Infrastructure availability for Waste and Wastewater Management			
13.	Mechanism for disposal of other waste (including Hazardous Waste, Plastic, e-waste, municipal solid waste)			
14.	Contamination of surrounding environment including land /water bodies/ groundwater sources/air, if any due to mis management of any kind of waste including hazardous wastes?			

S. No.	Particulars	Existing status of compliance		Details, if any
		Yes	No	
15.	Any complaints about the site from local community/ staffs or other institutional entities regarding environmental safeguards (waste management, noise, spread of diseases etc)?			
16.	Any case pending in the court of law or arbitration?			
17.	Any notice issued (or probes) by the local authority, SPCB, CPCB, Forest Department, or any other regulatory authority?			
18.	Monitoring of environment safeguards and waste management done during construction and operation of such facility			

Corrective Action Recommended

Gaps/ Findings	Risk/Impact Level (Low/Moderate/High)	Corrective Action Recommended	Timeline for closure	Responsible Entity

APPENDIX 4 Format for Semi Annual Monitoring Report

Environmental Monitoring Report

Semiannual Report {Insert Number}
Reporting Period {From Month Year to Month Year}
Date {Month Year}

IND: Title of the Project
{Example: India: Supporting Human Capital Development in Meghalaya (Phase 2)}

Prepared by {Consultant and/or Implementing Agency} for the {Executing Agency} and for theAsian Development Bank

43.

Environmental Safeguard Monitoring Report

{Red text serves as guide for report preparation, please delete it when the report is finalized}

TITLE PAGE

LIST OF ABBREVIATIONS {All abbreviations used in the report should be listed here as well as being spelt out in full the first time they appear in the report}

TABLE OF CONTENTS

EXECUTIVE SUMMARY {Maximum two-page summary following table like the sample below, if necessary cross reference the relevant section of the main report for details to keep summary succinct}

Project Name	
Executing Agency	
Implementing Agency	
Environment Safeguards Categorization	
Environment Safeguards Documentation	EARF/EIA/IEE/Existing Facilities CAP/EMP
Project Stage Obtained	Design/Pre-Construction/Construction/Commissioning/O&M
Detailed Design Required Post-Approval	Yes/No – if yes include remarks on status of design progress (%)and if more than one design package, provide details if any differences between the status
Contract(s) Awarded	Yes/No – if more than one contract package, provide details
Bidding Document(s) Include EMP Cleared by ADB	Yes/No – if more than one contract package, provide details if any difference between the status
Contract(s) Awarded Include EMP Cleared by ADB	Yes/No if more than one contract package, provide details if any difference between the status
National Environment, Health and Safety Clearance(s) Obtained	Yes/No/NA provide details if any clearances are outstanding or there is any difference between the status of contract packages,use NA if any clearances not yet required
Contractor(s) Given Access to Site	Yes/No if more than one contract package, provide details if anydifference between the status
Construction Progress (%)	If more than one contract package, provide details if any difference between the status
Unanticipated Impacts including Change of Scope or Design	Yes/No if yes, provide brief details with how the IEE and EMPupdated as required
Number of Site Inspections and Audits Undertaken by Environment Safeguards Staff in Reporting Period	
Corrective Action Required from Previous Reporting Period	Yes/No/NA use NA if this is the first project reporting period
Outstanding Corrective Action this Reporting Period	Yes/No/NA if yes, provide bulleted summary of the key actions still required, use NA if the response to above is No or NA
Non-Compliances Recorded this Reporting Period	Yes/No if yes, provide bulleted summary of the key non-compliances recorded
Corrective Action Required	Yes/No if yes, provide bulleted summary of the key actions to be taken in response to non-compliances including timeline andbudget

Number of Health and Safety Incidents	Provide brief details including how they were responded to
GRM Functional	Yes/No briefly elaborate on set up if differs to description in IEE/EMP
Number of Unresolved Grievances from Prior Reporting Period	
Number of Grievances Received in Reporting Period	
Number of Grievances Resolved this Reporting Period	
Number of Grievances Still Outstanding	Provide brief details with timeline for resolution
Number of Grievances referred to Court of Law	Provide brief details
Number of Grievances referred to the Accountability Mechanism	Provide brief details

1.0 Introduction

2.0 Brief Project Description

{Maximum two pages to succinctly convey who the executing and implementing agencies are, the project outputs, construction works involved, details of contract packages, details of construction camps and other related facilities, national and ADB environmental safeguards project categorizations, and the environment safeguard documents (dates) applicable to the project}

{Include maps and plans showing the project site locations and project area of influence}

{Include table and/or organogram of environmental safeguards staffing and relationships between executing and implementing agencies, consultants, contractors, subcontractors, lenders, etc.}

3.0 Project Progress Status and Implementation Schedule

{Describe the implementation stage reached (design, pre-construction, construction, commissioning or O&M) and the % progress, main project activities and milestonesachieved during the reporting period, including bidding documents issued and contracts awarded during the reporting period etc. No need to repeat progress information included in previous monitoring reports if no change, cross reference the previous monitoring reportsif needed}

{Highlight any unanticipated impacts in relation to change in the project scope, locations of components, construction methods, and/or implementation schedule during the reporting period, if none confirm this.}

{Highlight any changes in the project organization and environmental safeguards staffing during the reporting period, if none confirm this}

{Report on any unanticipated impacts and updates to IEE/EMP that were required during the reporting period, status of delivery of documents, required amendments, consultation and disclosure undertaken etc.}

{The project Gantt chart may be included}

43.

{Include a simplified table like the sample below to report progress}

Project Component/Stage	Target Completion Date {Revised Target Date, if delayed}	Progress Status {not yet started; ongoing; completed}	Percent Completed	Remarks
Component (construction phase)	*Example for reporting period Jul-Dec 2024*			
Contract award	31 Jan 2022	Completed	100%	Contract awardedto XYZ contractor,copy of EMP included
Construction (site clearance, earthworks, civil works, installation of equipment, …)	31 Mar 2023 (original target completion was 31Dec 2012)	Ongoing	85%	There was a delayin the delivery of equipment….

4.0 Compliance to National Regulations and International Agreements

{Status of compliance and further action to ensure ongoing compliance; if there is partial or no compliance recommendations for corrective action are required. Provide explanations of any instances where the requirements of regulations or agreements were breached along with detailsof responses taken to rectify the breach once identified. Include all the applicable National Regulations and International Agreements following the sample table below}

National Regulation or International Agreement	Compliance Requirements under the Regulation or Agreement including any Environmental Clearances Required	Compliance Status {complied; partially complied; not complied; still ongoing or n/a at current stage of the project}	Remarks {provide details (evidence) to show how compliance was achieved; or explain the corrective action to be taken if there was non-compliance including timeline and budget}

5.0 Compliance to Environmental Covenants from the ADB Loan Agreement

{Status of compliance and further action to ensure ongoing compliance; if there is partial or no compliance recommendations for corrective action are required. Provide explanations of any instances where covenants were breached along with details of responses taken to rectify the breach once identified. Include all the applicable Loan Agreement covenants on environment following the sample table below}

Schedule #, Para. #	Covenant	Compliance Status {complied; partially complied; not complied; still ongoing or n/a at current stage of the project}	Remarks {provide details (evidence) to show how compliance was achieved; or explain the corrective action to be taken if there was non-compliance including timeline and budget}

6.0 Compliance to Environmental Assessment and Review Framework

{Status of compliance and further action to ensure ongoing compliance; if there is partial or no compliance recommendations for corrective action are required. Provide explanations of any instances where tasks allocated to the executing or implementing agency and any consultants have not been undertaken along with details of responses taken to rectify the situation once identified. Include all applicable organizations with responsibility for environmental safeguards following the sample table below}

Organization	Tasks	Compliance Status {complied; partially complied; not complied; still ongoing or n/a at current stage of the project}	Remarks {provide details (evidence) to show how compliance was achieved; or explain the corrective action to be taken if there was non-compliance including timeline and budget}
Executing Agency			
Implementing Agency			
Consultants…			
Contractors			

7.0 Compliance to Contract

{Status of compliance and further action to ensure ongoing compliance; if there is partial or no compliance recommendations for corrective action are required. Provide explanations of any instances where tasks allocated to the contractor have not been undertaken along with details of responses taken to rectify the situation once identified. Include all contract packages and provisions relating to environment, health and safety management following the sample table below}

Contract Package	Contract Provisions	Compliance Status {complied; partiallycomplied;	Remarks {provide sufficient details (evidence) to show howcompliance was achieved; or

		not complied; still ongoing or n/a at current stage of theproject}	explain the corrective action tobe taken if there was non-compliance including timelineand budget}
Package 1	Clause xx: Environment Protection	Partially complied	Provide details, if given in EMP compliance table just refer the table
Package 2	Clause xx EMP	Partially complied	Provide details, if given in EMP compliance table just refer the table
Package 3….			

8.0 Compliance to Environmental Management Plan and Corrective Action Plan (if any)

{With reference to the EMP (design, pre-construction, construction or operation as applicable in a particular reporting period) of the project, include a table following sample table below with the compliance status during the reporting period, with sufficient details (evidence) to show how compliance was achieved, or corrective action to be taken if there was non-compliance including timeline and budget}

{Flag if previous environmental monitoring report(s) included corrective action plan, if it did details of that corrective action plan should be incorporated into the EMP table and compliance status reported}

{Provide explanations of any instances where performance standards were temporarily exceeded during the reporting period, along with details of any response taken to rectify the exceedance once identified, even if at the end of the reporting period the project is deemed as being compliant}

{Copies of clearances, SEMP/CEMP, construction method statements, and other documentation produced in accordance with EMP during the reporting period should be included as an appendix}

Item #	Environment Management Measures	Prior Corrective Action, if any	Compliance Status {complied; partially complied; not complied; still ongoing or n/a at current stage of the project}	Remarks {provide sufficient details (evidence) to show howcompliance was achieved; or explain the corrective action to be taken if there was non-compliance including timeline and budget}

Item #	Management measures as per CAP drawn as part of audit of existing facilities, if any	Prior Corrective Action	Compliance Status {complied; partially complied; not complied; still ongoing or n/a at current stage of the project}	Remarks {provide sufficient details (evidence) to show howcompliance was achieved; or explain the corrective action to be taken if there was non-compliance including timeline and budget}

9.0 Environmental Safeguard Capacity Building

{With reference to the EMP capacity development plan summarize trainings for the executing and implementing agencies, contractors, and subcontractors, and other activities completed. Include as appendices the training agenda, attendance sheets, andphotos. If no trainings or other activities in reporting period, please confirm. Copies of training records related to EMP during the reporting period should be included as an appendix}

Trainings	Number and Position ofParticipant/s	Location/s and Date/s	Remarks

10.0 Environmental Safeguard Inspection and audits

{Site inspections and audits completed summarize the number and type of site visits, persons involved, the issues covered, and status of compliance with them, the number ofnon-compliance notices given out to the contractor as a result of the site visit, and the checklists/reporting format used (sample of checklists and reports to be included as an appendix)}

Date	Type and Purpose of Visit	Location/s Visited	EA, IA, Consultant Staff Participating	Remarks

11.0 Quantitative Environmental Monitoring

{Environmental monitoring results - summarize summarize in a table the reporting period's quantitative monitoring activities and data obtained in accordance with the Environmental Monitoring Plan (EMP) of the project. Provide explanations of any instances where performance standards were exceeded along with details of responses taken to rectify theexceedance once identified}

Typically, this section will include the results of:Noise and vibration surveys, Water quality surveys Air quality surveys, Flora and fauna surveys etc.

{Indicate the monitoring locations using a map or plan, dates, times, duration of samples as applicable, weather conditions as applicable, parameters measured, equipment used,standards, tests, and limits used etc.}

{Corrective actions with timeline and budget are required to ensure any exceedances will be prevented in the future}

{Graphs can be used in this section to show trends; however, large tables of data or multiple graphs should be attached as an appendix.

{Calibration and QA certifications of monitoring equipment and laboratories analyzing samples should be included as an appendix}

12.0 Occupational and Community Health and Safety Monitoring

{Health and safety monitoring results - summarize the reporting period's health and safety activities and data obtained in accordance with the Environmental Monitoring Plan (EMP) of the project. Provide explanations of any instances where performance standards were exceeded along with details of responses taken to rectify the exceedance once identified}

{Corrective actions with timeline and budget are required to ensure any exceedances will be prevented in the future}

{Include the occupational and community trainings/drills/inspections conducted during the reporting period following the sample table below. Include as appendices the training/drill/inspection agenda, attendance sheets, and photos. If no trainings/drills/inspections, please confirm}

Trainings/Drills /Inspections	Number and Position of Participant/s	Location/s and Date/s	Remarks
Example: Fire Drill	50 Laborers	Construction Camp, 15 Aug 2018	Participants safely evacuated the site …

{If there was any near-miss or accident, illness, or other occupational or community health and safety related incident during the reporting period (or a previously reported incident with ongoing rectification) report following the sample table below. Include as appendices work safety checklists, incident reports, and other relevant supporting documents. If no incidents, please confirm}

	Number and Position of Person/s Involved	Location/s and Date/s of Incident	Detailed Description of Incident- Attach root cause analysis report	Time-bound Corrective Action
Fatality				
Non-fatal Injury (Lost Time)				
Non-fatal Injury (Minor)				
Near-miss				
Illness				
Other Incidents				

13.0 Meaningful Consultation and Grievance Redress

{Meaningful consultation report on any ongoing consultation undertaken, and main issues raised by consultees; detailed consultation records should be included as an appendix. If no ongoing consultation, please confirm}

Date		Sub Project and Venue			
Sl.no	Participants Name	Occupation	Gender	Issues raised by participants	Response Given by EA/PMC/Contractors

{Include a brief description of the GRM, provide a flowchart, list of grievance redress committee members and any trainings they have received}

{If there was any grievance or complaint, regardless informal or minor, during the reporting period (or previously reported complaint with ongoing rectification) provide the corrective action taken following the sample table below. Detailed grievance records and response reports should be included as an appendix}

Complainant's name & contact details	Date/s of Complaint	mode of communication to EA/ADB	Description of Complaint	Resolution details	Date of resolution	Mode of communication to complainant

14.0 Compliance to recommendations of Previous reporting period EMR

Non-compliance identified in previous EMR	Corrective Action recommended in previous EMR	Compliance status	Continued noncompliance, if any (please add this to the current EMR's recommendation as continued NCs)

15.0 Conclusions and Recommendations

{Summarize the project's environmental performance during the reporting period based on the previous sections and, if any non-compliance identified, provide detailed recommendations including responsibilities, timeliness and budget for the preparation and completion of correctiveaction}

{If non-compliance is major or not readily addressed then a separate corrective action plan may need to be prepared. For minor and readily addressed non-compliances the corrective action plan can be incorporated into this final section of the environmental monitoring report following the sample table below}

Non-compliance	Corrective Action to be Taken	Responsibility	Timeline	Budget

APPENDIXES

Photographs {Include relevant photographs of the project site and project area of influence taken during the reporting period to provide evidence of compliance and/or non-compliance. Foreach photo, provide a caption with description of what it illustrates, accurate location, and date taken}

Supporting Documents
{E.g. Maps and plans, Sample checklists and reports Clearances and documentation Training records, Detailed monitoring data, laboratory results etc.Calibration and QA certificates, Consultation records, Meeting agendas and attendance records,Grievance records, Environment, health and safety reports etc}

APPENDIX 5 Sample Daily Inspection/Monitoring Checklist of Contractor

SAMPLE DAILY MONITORING SHEET FOR CONTRACTORS

NAME OF PROJECT
Contractor Monitoring Sheet

Name of Component: _____
Location: _____
Supervising PIU: _____
Contractor: _____
Contractor EHS Supervisor (or equivalent): _____
Date of monitoring: _____

Summary of Findings

Monitoring Item	Status	Remarks
1. Compliance with Local Permit Requirements	(Secured / Application Submitted / Not Applicable)	
Location/zoning permits		
Permit to construct		
Building permit		
Transport / hauling permits		
2. Compliance with IEE Requirements	(Approved / Under Preparation / Submitted to PMU for Approval / Not Applicable)	
Site-specific EMP (SEMP)		
Corrective Action Plan, if any		
3. Compliance with SEMP		
Construction Site	(Satisfactory / Needs Improvement / Not Implemented/Not Applicable)	
Conduct of toolbox talk		
Use of PPE		
Rest areas for male and female workers		
Toilets for male and female workers		
Medical kits		
Drinking water supply		
Dust control		
Noise control		
Solid waste management		
Wastewater management		
Chemicals storage (fuel, oil, etc.)		
Siltation or erosion control		
Heavy equipment staging / parking area		
Barricades around excavation sites		
Access to residential houses/shops/businesses		
Traffic routing signages		
Lightings at night		
Trench shoring / landslide protection		
Construction Workers' Camp Site	(Available / Needs Improvement / Not Available / Not Applicable)	

Monitoring Item	Status	Remarks
Quarters for male and female workers		
Sleeping utilities (e.g. beds, pillows, blankets, mosquito nets, etc.)		
Power/Electricity supply		
Drinking water supply		
Toilets for male and female workers		
General purpose water supply (cooking, washing, bathing)		
Cooking facilities and areas		
Solid waste management		
Wastewater management		
Pest control		
4. Implementation of GRM	(Yes / No or None / Under Resolution)	
Complaints		
Complaints resolution		
5. Environmental Quality Measurement	(Passed / Failed / Not Applicable)	
Ambient air quality sampling		
Noise level measurement		
Receiving water quality sampling		

Other Issues:

Attachments:
1. Copies of permits secured, if any.
2. Photos taken at worksites, if any.
(photos attached in previous monitoring sheets should not be used again).
3. Laboratory results of environmental quality measurements, if any.

Prepared by: _____
Name, Designation and Signature

APPENDIX 6 Sample Site Inspection Checklist for PMU/PIU

SAMPLE SITE INSPECTION CHECKLIST FOR PMU/PIU

Project: _____ Date: _____
Component / Location: _____

MONITORING/INSPECTION QUESTIONS		FINDINGS			COMMENTS / CLARIFICATIONS
1.	Supervision and Management On-Site	Yes	No	NA	
	Is an EHS supervisor available?				
	Is a copy of the SEMP available?				
	Are daily toolbox talks conducted on site?				
2.	The Facilities	Yes	No	NA	
	Are there a medical and first aid kits on site?				
	Are emergency contact details available on-site?				
	Are there PPEs available? What are they?				
	Are the PPEs in good condition?				
	Are there firefighting equipment on site?				
	Are there separate sanitary facilities for male and female workers?				
	Is drinking water supply available for workers?				
	Is there a rest area for workers?				
	Are storage areas for chemicals available and with protection? in safe locations?				
3.	Occupational Health and Safety	Yes	No	NA	
	Are the PPEs being used by workers?				
	Are excavation trenches provided with shores or protection from landslide?				
	Is breaktime for workers provided?				
	How many for each type of collection vehicle is in current use?				
4.	Community Safety	Yes	No	NA	
	Are excavation areas provided with barricades around them?				
	Are safety signages posted around the sites?				
	Are temporary and safe walkways for pedestrians available near work sites?				
	Is there a record of treated wastewater quality testing/measurement?				
5.	Solid Waste Management	Yes	No	NA	
	Are excavated materials placed sufficiently away from watercourses?				
	Is solid waste segregation and management in place?				
	Is there a regular collection of solid wastes from work sites?				
6.	Wastewater Management	Yes	No	NA	

MONITORING/INSPECTION QUESTIONS		FINDINGS			COMMENTS / CLARIFICATIONS
	Are there separate sanitary facilities for various types of use (septic tanks, urination, washing, etc.)?				
	Is any wastewater discharged to storm drains?				
	Is any wastewater being treated prior to discharge?				
	Are measures in place to avoid siltation of nearby drainage or receiving bodies of water?				
	Are silt traps or sedimentation ponds installed for surface runoff regularly cleaned and freed of silts or sediments?				
7.	Dust Control	Yes	No	NA	
	Is the construction site watered to minimize generation of dust?				
	Are roads within and around the construction sites sprayed with water on regular intervals?				
	Is there a speed control for vehicles at construction sites?				
	Are stockpiles of sand, cement and other construction materials covered to avoid being airborne?				
	Are construction vehicles carrying soils and other spoils covered?				
	Are generators provided with air pollution control devices?				
	Are all vehicles regularly maintained to minimize emission of black smoke? Do they have valid permits?				
8.	Noise Control	Yes	No	NA	
	Is the work only taking place between 7 am and 7 pm, weekdays?				
	Do generators operate with doors closed or provided with sound barrier around them?				
	Is idle equipment turned off or throttled down?				
	Are there noise mitigation measures adopted at construction sites?				
	Are neighbouring residents notified in advance of any noisy activities expected at construction sites?				
9.	Traffic Management	Yes	No	NA	
	Are traffic signages available around the construction sites and nearby roads?				
	Are re-routing signages sufficient to guide motorists?				
	Are the excavation sites along roads provided with barricades with reflectors?				

MONITORING/INSPECTION QUESTIONS		FINDINGS			COMMENTS / CLARIFICATIONS
	Are the excavation sites provided with sufficient lighting at night?				
10.	Recording System	Yes	No	NA	
	Do the contractors have recording system for SEMP implementation?				
	Are the daily monitoring sheets accomplished by the contractor EHS supervisor (or equivalent) properly compiled?				
	Are laboratory results of environmental sampling conducted since the commencement of construction activities properly compiled?				
	Are these records readily available at the site and to the inspection team?				

Other Issues: _____

_____

_____

_____

Prepared by: _____

Name, Designation and Signature

51.

APPENDIX 7 Environment Safeguards QPR Checklist[38]

Activity	Yes / No	Remarks (If Answer Is **No**)
A. For component packages under bidding		
1. IEEs cleared by ADB?		
2. IEEs/EMPs included in the bidding documents?		
3. Are there changes in the scope of work of the cleared IEEs?		
4. Core labor standards and environment, health and safety (EHS) incorporated in Section 8 of the bid documents?		
5. BOQ line item includes EMP requirements?		
6. IEE disclosed in form and language understood by stakeholders and affected persons (APs)?		
B. For component packages with contracts awarded (no works yet)		
1. All statutory clearances/permits obtained?		
2. Each contractor appointed EHS and/or safety officer?		
3. Baseline regarding condition of roads, agricultural land and other infrastructure prior to start of transportation of materials and construction has been recorded?		
4. Contractor has established tie-ups with local hospitals/clinics for emergencies onsite?		
5. For DBO packages, detailed design completed and updated IEE submitted to ADB?		
6. Asbestos Management Plan, HIA submitted to ADB (where required)		
7. Site-specific EMP submitted to ADB?		
C. For component packages with contracts awarded and works on-going		
1. Contractors have appointed EHS and/or safety officer onsite per component package?		
2. Site-specific EMP posted onsite?		
3. Contractors' records of accidents / incidents submitted to PMU on a monthly basis?		
4. Contractors provided PMU with a notification/incident report of any accident(s) within 24 hours of its occurrence?		
5. Reports of complaints/grievances reported monthly to PMU?		
6. Records of information disclosure/consultations submitted by PIUs to PMU monthly?		
7. Records of site inspection by PIU submitted to PMU monthly?		

[38] This checklist should provide the Project's general compliance to environment safeguards during the reporting period. The indicators are aligned with project loan agreement, PAM, IEEs and ADB's Sustainable Development Safeguards Division Safeguards project performance rating. The detailed environmental safeguards compliance status should be provided in the semi-annual environmental monitoring report.

54.

APPENDIX 8 Sample Grievance Registration Form
(to be available in Khasi and Garo)

The Supporting Human Capital Development Project in Meghalaya (Phase II) Project welcomes complaints, suggestions, queries, and comments regarding project implementation. We encourage persons with grievance to provide their name and contact information to enable us to get in touch with you for clarification and feedback. Should you choose to include your personal details but want that information to remain confidential, please inform us by writing/typing *(CONFIDENTIAL)* above your name. Thank you.

Date		**Place of registration**			
Contact Information/Personal Details					
Name		**Gender**		**Age**	
Home Address					
Place					
Phone Number					
E-mail					
Complaint/Suggestion/Comment/Question Please provide the details (who, what, where and how) of your grievance below					
How do you want us to reach you for feedback or update on your comment/grievance?					

FOR OFFICIAL USE ONLY

Registered by: (Name of Official registering grievance)	
Mode of communication: Note/Letter Email Verbal/Telephonic	
Reviewed by: (Names/Positions of Official(s) reviewing grievance)	
Action Taken:	
Whether action taken has been disclosed:	
Means of Disclosure:	