

Skills for Industry Competitiveness and Innovation Program (SICIP)

ENVIRONMENTAL CODE OF PRACTICE (ECoP)

Construction of approach road, cafeteria and other ancillary works at Khulna Technical Training Centre (TTC)

Project Title: Construction of approach road, cafeteria and other ancillary works at Khulna TTC
Location: Teligati, Aronghata, Khulna, Bangladesh
Prepared In Compliance With: ADB Safeguard Policy Statement (2009) and Applicable Bangladesh
Environmental Legislation
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Prepared by:	Reviewed by:	Approved by:
Dr. A H M Mojammal Environmental Specialist SICIP	Sohel Mahmud Deputy Secretary and Assistant Executive Program Director SICIP	Mohammed Walid Hossain Additional Secretary and Executive Program Director SICIP
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LIST OF ACRONYMS

ADB	Asian Development Bank
BOQ	Bill of Quantities
CEMP	Construction Environmental Management Plan
DoE	Department of Environment
ECA	Environment Conservation Act
ECC	Environmental Clearance Certificate
ECoP	Environmental Code of Practice
ECR	Environment Conservation Rules
EMP	Environmental Management Plan
GRM	Grievance Redress Mechanism
OHS	Occupational Health and Safety
PPE	Personal Protective Equipment
PIU	Project Implementation Unit
SDCMU	Skills Development Coordination and Monitoring Unit
SICIP	Skills for Industry Competitiveness and Innovation Program
SPS	Safeguard Policy Statement
TTC	Technical Training Centre

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EXECUTIVE SUMMARY

This Environmental Code of Practice (ECoP) has been prepared for the proposed infrastructure development at Khulna Technical Training Centre (TTC) under the Skills for Industry Competitiveness and Innovation Program (SICIP). The objective of this ECoP is to establish practical environmental management measures to avoid, minimize, and mitigate potential adverse environmental impacts during the construction and operation phases of the project, in compliance with the Asian Development Bank (ADB) Safeguard Policy Statement (2009) and the environmental regulations of Bangladesh.

The project is located within the existing premises of Khulna TTC and involves small-scale construction activities, including site preparation, construction of a tin-shed cafeteria, internal road development, and minor drainage improvements. As the project is confined within an operational institutional campus, environmental impacts are expected to be limited, site-specific, and manageable with appropriate mitigation measures.

During the construction phase, potential environmental impacts include dust generation, noise from machinery, minor air emissions, construction waste generation, temporary drainage obstruction, occupational health and safety risks, and minor traffic disturbances within the campus. In the operation phase, impacts are mainly associated with solid waste generation and wastewater discharge from the cafeteria, along with routine maintenance activities. All identified impacts are assessed to be minor and can be effectively managed through the implementation of good construction and operational practices.

The ECoP outlines a comprehensive set of mitigation measures covering key areas such as air quality management, noise control, waste management, soil and water protection, occupational health and safety, traffic management, community health and safety, and protection of vegetation. Specific operational measures for the cafeteria, including grease trap installation and proper waste handling, have also been incorporated.

An institutional arrangement has been defined to ensure effective implementation of the ECoP. The Executing Agency will be responsible for overall compliance, while the Contractor will implement mitigation measures under the supervision of the Engineering/Supervision Consultant. The Project Implementation Unit (PIU) and Skills Development Coordination and Monitoring Unit (SDCMU) will oversee the monitoring and reporting.

A detailed environmental monitoring plan has been developed to track compliance with mitigation measures throughout the project life cycle. Monitoring will include regular site inspections, documentation, and reporting. The Contractor will submit monthly environmental compliance reports, while any incidents will be reported within 24 hours. Upon completion of construction, a final environmental compliance report and certification will be required.

The ECoP implementation is scheduled over a nine-month period from 16 October 2025 to 15 July 2026, aligned with the construction timeline. Environmental

management costs are incorporated within the Contractor's Bill of Quantities (BOQ), ensuring that all mitigation measures are adequately resourced.

In conclusion, the proposed works at Khulna TTC are environmentally low-risk and are not expected to result in significant adverse impacts. With proper implementation of the ECoP, the project will ensure compliance with national and international safeguard requirements and will be carried out in an environmentally sound and sustainable manner.

1. Introduction

The Skills for Industry Competitiveness and Innovation Program, supported by the Asian Development Bank, is a flagship initiative under the Bangladesh Country Partnership Strategy 2021–2025 and aligns with the Government of Bangladesh’s broader agenda to strengthen human capital for sustainable economic development and inclusive growth. The program aims to bridge the gap between industry demand and workforce readiness by investing in modern training infrastructure, promoting green and innovative practices, and expanding access to inclusive, competency-based skills development opportunities for youth.

Under this program, the subproject titled “*Construction of Approach Road, Cafeteria and Other Ancillary Works at Khulna TTC*” (Package No. WD-203; e-Tender ID: 1135489) has been undertaken to improve the infrastructure and operational capacity of the Khulna Technical Training Centre. The scope of works includes the construction of a single-storey tin shed cafeteria, development of an internal periphery road, and other minor ancillary facilities. These improvements are expected to enhance the overall training environment and support the delivery of advanced technical education.

Although the project is small in scale, the construction activities may generate typical environmental impacts such as dust, noise, emissions, construction waste, and occupational health and safety risks. Considering that Khulna TTC is an active educational institution with regular movement of students, instructors, and staff, maintaining acceptable environmental conditions during construction is essential to minimize disruption and ensure a safe and conducive learning environment. Accordingly, environmental monitoring focusing on air quality, noise control, site safety, and worker protection has been incorporated into the project implementation approach to ensure compliance with national regulations and good construction practices.

Based on environmental screening in accordance with the **ADB Safeguard Policy Statement (2009)**, the subproject has been classified as **Category C**, as it is expected to have minimal, site-specific, and temporary environmental impacts that are readily manageable. Therefore, preparation of a detailed Construction Environmental Management Plan (CEMP) is not required. Instead, this Environmental Code of Practice (ECoP) has been prepared to provide practical guidance on environmental management, mitigation measures, and occupational health and safety during construction, ensuring that the project is implemented in an environmentally responsible and sustainable manner.

2. Policy and Legal Framework

2.1 ADB Policy Framework

The proposed construction works at Khulna Technical Training Centre, including the development of a small tin shed cafeteria and internal periphery road, are planned and implemented in compliance with the Asian Development Bank Safeguard Policy Statement (SPS), 2009. Based on environmental screening, the subproject has been classified as Category C, as the anticipated impacts are minimal, site-specific, short-

term, and reversible in nature, arising mainly during the construction phase. These impacts can be effectively managed through the application of standard good construction and housekeeping practices. In this context, preparation of a detailed Construction Environmental Management Plan (CEMP) is not required; instead, this Environmental Code of Practice (ECoP) is considered sufficient to guide environmental management, ensure compliance with applicable regulations, and maintain occupational health and safety during project implementation.

2.2 Bangladesh Legal and Regulatory Framework

Small institutional construction typically falls under the Orange-B category under ECR 1997, requiring compliance with environmental standards and mitigation measures. Institutional construction is now scale-dependent under ECR 2023. It does not fall automatically into the orange category. The construction of a building measuring 5,000 to 20,000 sq. meters of built-up area falls in the Orange Category as per Schedule-1 of the ECR 2023, and it requires an Environmental Clearance Certificate (ECC). The proposed construction includes a tin shed cafeteria (180 m²) and an internal periphery road of 500 m with an area of 1600 m². The proposed construction does not fall under the orange category because the cumulative sum of the total built-up area is less than 5,000 m². Even this construction does not fall under any specific category according to ECR 2023 because the impact is non-significant. The following national regulations are applicable.

2.2.1 Bangladesh Environment Conservation Act (ECA), 1995 (amended 2010)

The proposed works at Khulna Technical Training Centre are subject to the provisions of the Bangladesh Environment Conservation Act **(ECA), 1995 (amended 2010)**, which provides the overarching legal framework for environmental protection and pollution control in Bangladesh. Although the subproject is small-scale and categorized as low-impact, it is required to comply with national environmental standards related to air quality, noise, waste management, and protection of water resources. The Act empowers the Department of Environment (DoE) to regulate and monitor such activities to prevent environmental degradation. Accordingly, the Environmental Code of Practice (ECoP) for the Khulna TTC project incorporates relevant provisions of the ECA to ensure that construction activities are carried out in an environmentally responsible manner, minimizing pollution and safeguarding public health and the surrounding environment.

2.2.2 Environment Conservation Rules (ECR), 1997

The construction activities at Khulna Technical Training Centre are guided by the provisions of the Environment Conservation Rules (ECR), 1997, which operationalize the Environment Conservation Act (1995) by defining environmental standards and project classification requirements. Based on the nature and scale of the proposed works—such as the construction of a small tin shed cafeteria and internal road—the subproject typically falls under the Orange-B category, which requires compliance with prescribed environmental standards and the adoption of mitigation measures. In line with ECR 1997, the Environmental Code of Practice (ECoP) for the Khulna TTC project incorporates provisions for controlling dust, noise, waste disposal, and

drainage management to ensure that construction activities remain within acceptable environmental limits and do not adversely affect the surrounding environment.

2.2.3 Environment Conservation Rules (ECR), 2023

The construction activities at Khulna Technical Training Centre are also guided by the updated provisions of the Environment Conservation Rules **(ECR), 2023**, which provide revised environmental standards, classification criteria, and compliance requirements in Bangladesh. Given the small-scale and low-impact nature of the proposed cafeteria and internal road works, the subproject is considered to fall within a lower-risk category requiring adherence to standard environmental management practices rather than extensive assessment. The ECR 2023 emphasizes stricter control of air quality, noise, wastewater, and waste management, as well as improved environmental monitoring and compliance. Accordingly, the Environmental Code of Practice (ECoP) for the Khulna TTC project incorporates these updated standards to ensure that construction activities are conducted in an environmentally sound manner, minimizing pollution and maintaining compliance with national regulatory requirements.

2.2.4 Bangladesh Labour Act, 2006 (amended 2018)

The construction works at Khulna Technical Training Centre shall comply with the provisions of the Bangladesh Labour Act, which establishes requirements for occupational health, safety, and welfare of workers. Given that the project involves engagement of skilled, semi-skilled, and unskilled labor during construction, the Act mandates the provision of a safe working environment, use of personal protective equipment (PPE), proper sanitation, access to drinking water, regulated working hours, and emergency preparedness. The Environmental Code of Practice (ECoP) for the Khulna TTC project integrates these provisions to ensure that all workers are protected from workplace hazards and that construction activities are carried out in compliance with national labor and safety standards.

2.2.5 National Building Code of Bangladesh (BNBC 2020)

The design and construction of facilities at Khulna Technical Training Centre shall adhere to the provisions of the Bangladesh National Building Code (BNBC 2020), which establishes standards for structural safety, fire protection, building services, and occupational health and safety during construction. For the proposed tin shed cafeteria and internal road works, compliance with BNBC ensures that the structures are safe, durable, and resilient, and that construction practices meet accepted engineering and safety standards. The Environmental Code of Practice (ECoP) incorporates relevant BNBC requirements, particularly those related to worker safety, material handling, and construction site management, to ensure that the project is implemented in a safe and technically sound manner.

2.2.6 Local Government Engineering Department (LGED) environmental guidelines (where applicable)

The construction activities at Khulna Technical Training Centre will also follow the relevant environmental guidelines of the Local Government Engineering Department,

where applicable, particularly for small-scale infrastructure such as internal roads and ancillary facilities. LGED guidelines emphasize environmentally sound construction practices, including proper drainage management, erosion control, waste disposal, and minimization of impacts on surrounding communities. In the context of the Khulna TTC project, the Environmental Code of Practice (ECoP) integrates these good practices to ensure that road construction and site development activities are carried out in a sustainable manner, maintaining environmental quality and preventing localized adverse impacts.

3. Project Description

3.1 Location

The project site is located within the existing premises of the Khulna Technical Training Centre, situated in Khulna District in the southwestern region of Bangladesh. The geographic coordinates of the project location are approximately 22.8976°N, 89.4966°E, indicating its position within an established urban-institutional setting. The site is well-connected through existing road networks and is surrounded by educational and urban infrastructure, making it suitable for the proposed small-scale construction works without requiring additional land acquisition or major site development. The location of the project is shown in Figure 3-1.

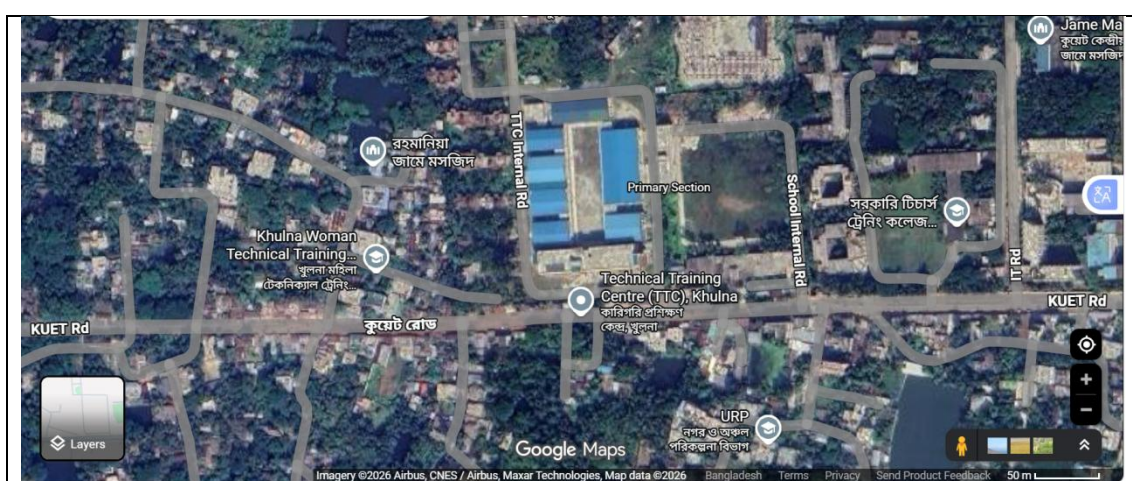


Figure 3-1: Location of Khulna TTC

3.2 Existing Infrastructure

The proposed subproject is located within the existing premises of the Khulna Technical Training Centre (TTC), Khulna, operated under the Bureau of Manpower, Employment and Training (BMET). The site is an established governmental training facility with pre-developed infrastructure, and no greenfield development is involved. The existing infrastructure provides a functional base for technical and vocational training and is generally compatible with the scope of the Skills for Industry Competitiveness and Innovation Program (SICIP).

The TTC campus includes a dedicated administrative building housing offices for the Principal, instructors, and support staff. It also accommodates meeting rooms, student service areas, and record-keeping facilities. These administrative units facilitate

institutional management, trainee enrollment, and coordination of training programs, including grievance redress arrangements consistent with ADB Safeguard Policy Statement (SPS, 2009) requirements.

The centre comprises multiple classrooms used for theoretical instruction, supported by trade-specific laboratories and workshops. Existing training facilities typically include electrical installation and maintenance labs, refrigeration and air-conditioning (RAC) workshops, computer and ICT laboratories, and mechanical or automobile training units. These facilities are equipped with basic tools and machinery necessary for competency-based training delivery.

Dedicated workshop spaces are available for hands-on training, including machine rooms, equipment storage areas, and demonstration zones. These areas are designed to simulate real-world working environments, thereby enhancing practical skill development.

The centre is connected to existing utility services, including electricity supply (with partial backup arrangements), water supply (through deep tube well and/or municipal sources), and internal drainage systems. Internal roads and circulation pathways facilitate access within the campus. Solid waste is managed through existing municipal or on-site arrangements, which may require upgrading to comply with environmental management requirements.

The TTC premises include trainee support infrastructure such as common spaces, and sanitation facilities. Basic occupational health and safety (OHS) measures, such as fire safety equipment and limited personal protective equipment (PPE), are available in the TTC.

The TTC campus is generally enclosed by boundary walls with controlled entry points, ensuring site security. Open spaces within the premises are used for movement, assembly, and limited landscaping. Parking areas for staff and visitors are also available within the compound.

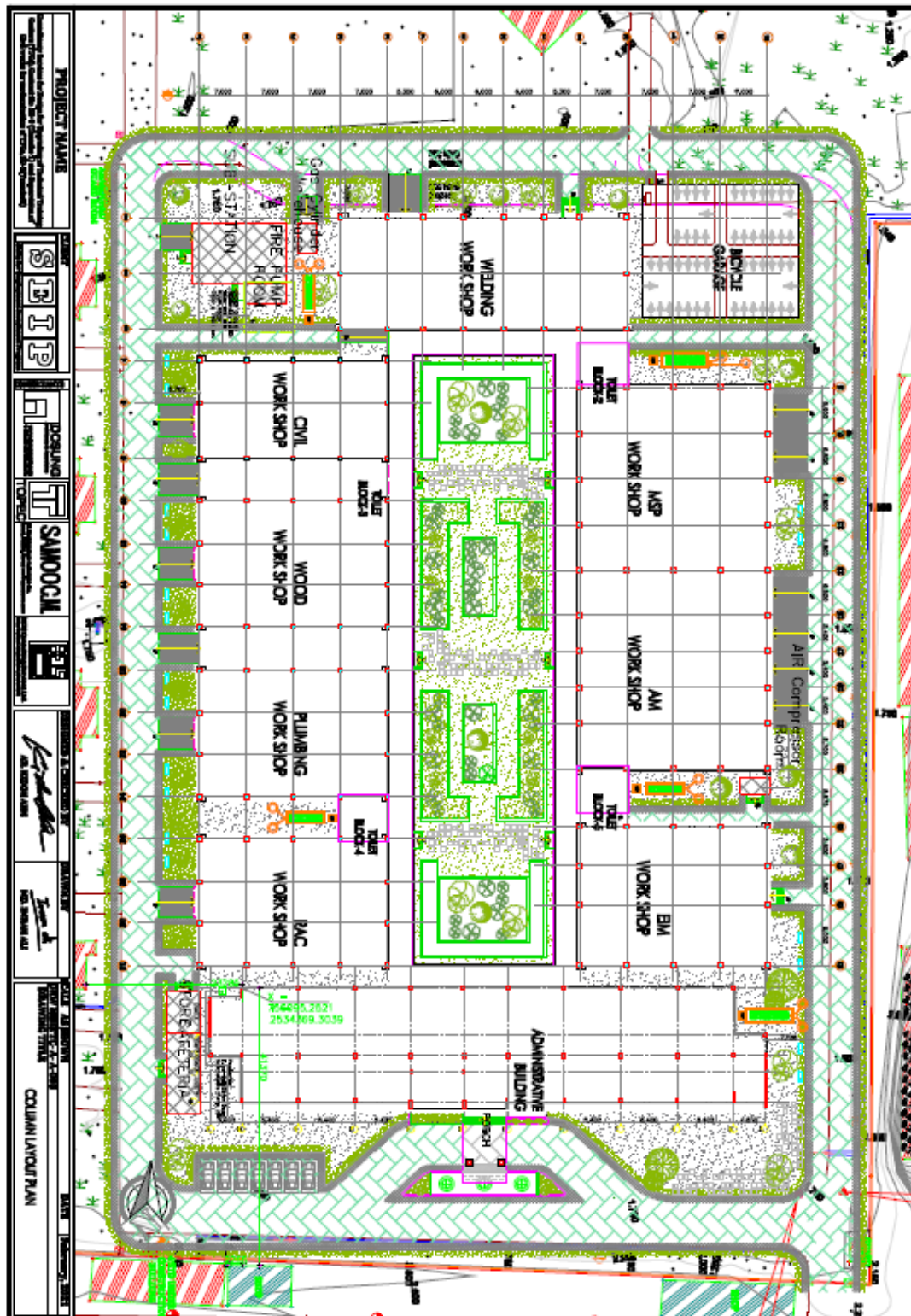


Figure 3-2: Existing Infrastructure of Khulna TTC

3.3 Scope of Work

Under the Skills for Industry Competitiveness and Innovation Program (SICIP), limited infrastructure development works are proposed within the existing premises of Khulna Technical Training Centre (TTC), Khulna. The interventions are small-scale,

site-specific, and aimed at improving institutional functionality and trainee facilities without any expansion beyond the current boundary. The proposed works are summarized below:

3.3.1 Earthwork and site preparation

Initial activities will involve site clearing, minor land leveling, and earthwork to prepare designated areas for construction. This includes removal of loose soil, grading to ensure proper slope and drainage, and compaction of soil to achieve the required foundation stability. These activities will be confined within the existing TTC premises and will not involve significant alteration of natural landforms.

3.3.2 Foundation and superstructure construction (tin shed cafeteria)

A new tin shed cafeteria is proposed to improve trainee welfare and campus amenities. The construction will include shallow foundation works (excavation, footing, and casting), followed by erection of a lightweight superstructure comprising steel framing and corrugated metal sheets. The structure is designed to be cost-effective, climate-responsive, and suitable for institutional use, with provisions for ventilation and safe occupancy.

3.3.3 Internal Road Construction

Improvement and/or construction of internal access roads is proposed to enhance mobility within the TTC campus. Works will include preparation of subgrade, placement of sub-base materials, and finishing with either bituminous or cement concrete (CC) surfacing, depending on design requirements. These developments will facilitate safe movement of trainees, staff, and service vehicles, particularly during the rainy season.

3.3.4 Minor Drainage Adjustments

To address localized waterlogging and improve stormwater management, minor adjustments to the existing drainage system will be undertaken. This may include regrading of surface drains, installation of small pipe/culverts, and clearing or rehabilitation of existing drainage lines to ensure unobstructed flow. These measures will enhance site resilience to rainfall and prevent deterioration of infrastructure.

There is no land acquisition, involuntary resettlement, or significant impact on sensitive environmental receptors is anticipated. Overall, the proposed infrastructure improvements are expected to enhance the operational efficiency, safety, and service quality of Khulna TTC while maintaining compliance with environmental and social safeguards requirements.

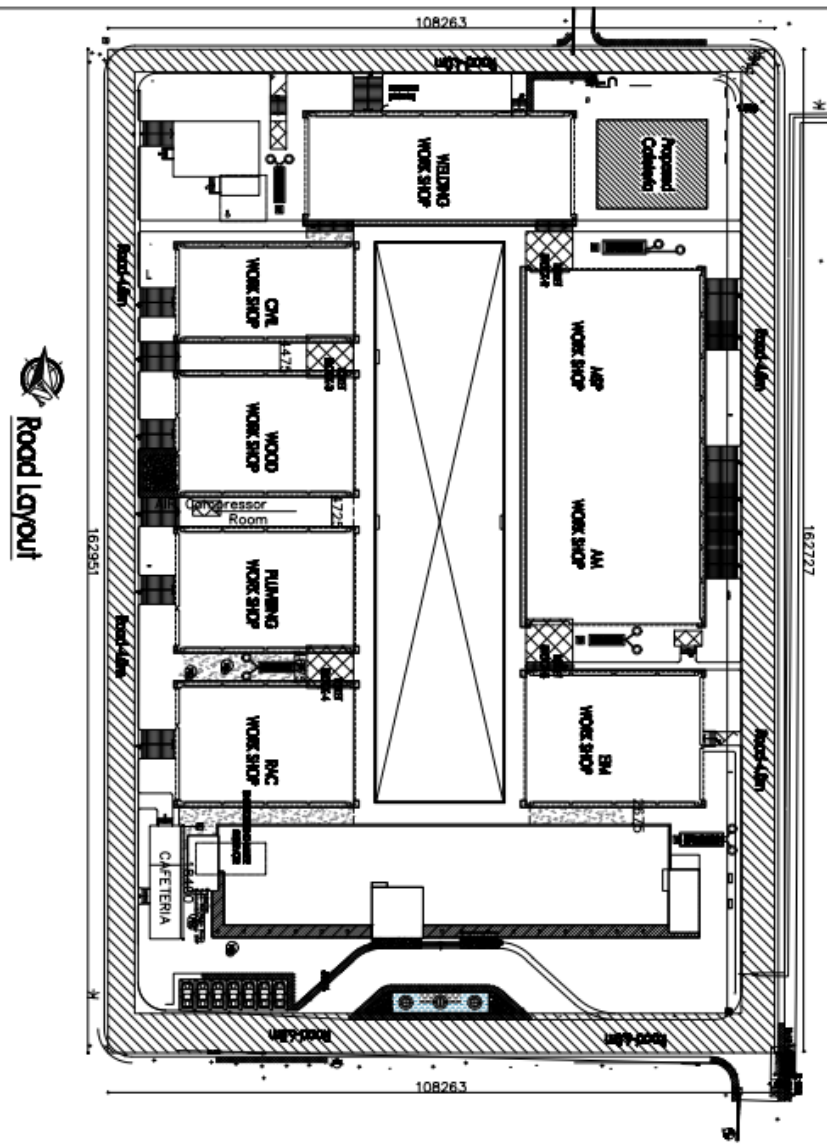


Figure 3-3: Layout of Proposed Road and Tin Shed Cafeteria

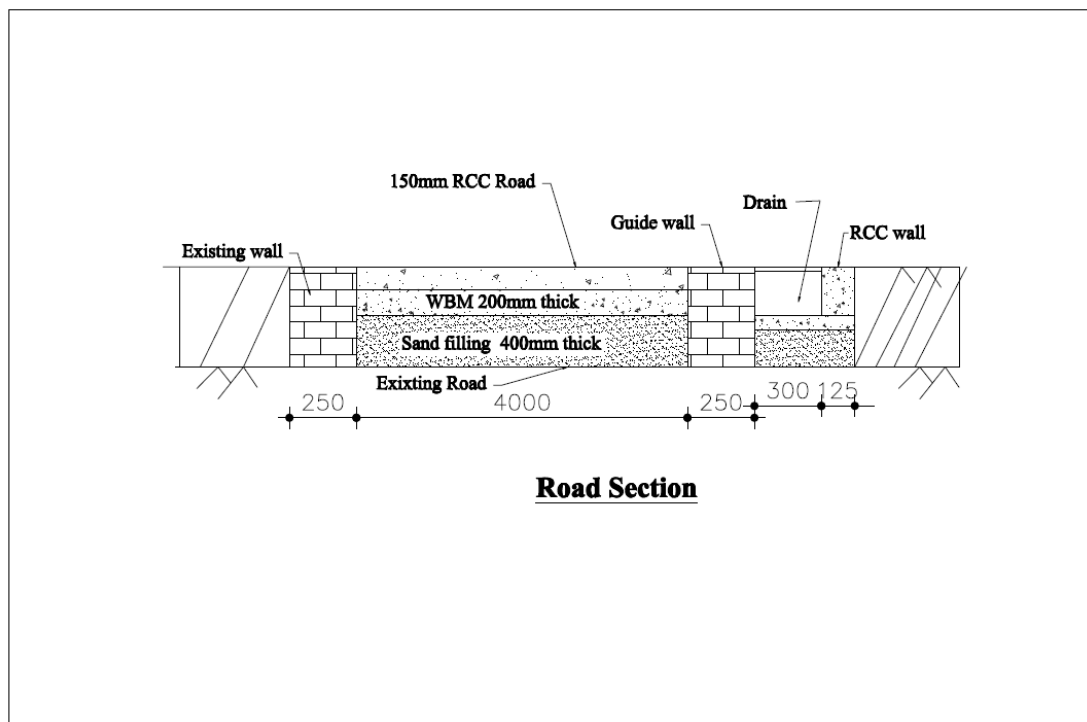


Figure 3-4: Section of Proposed Road

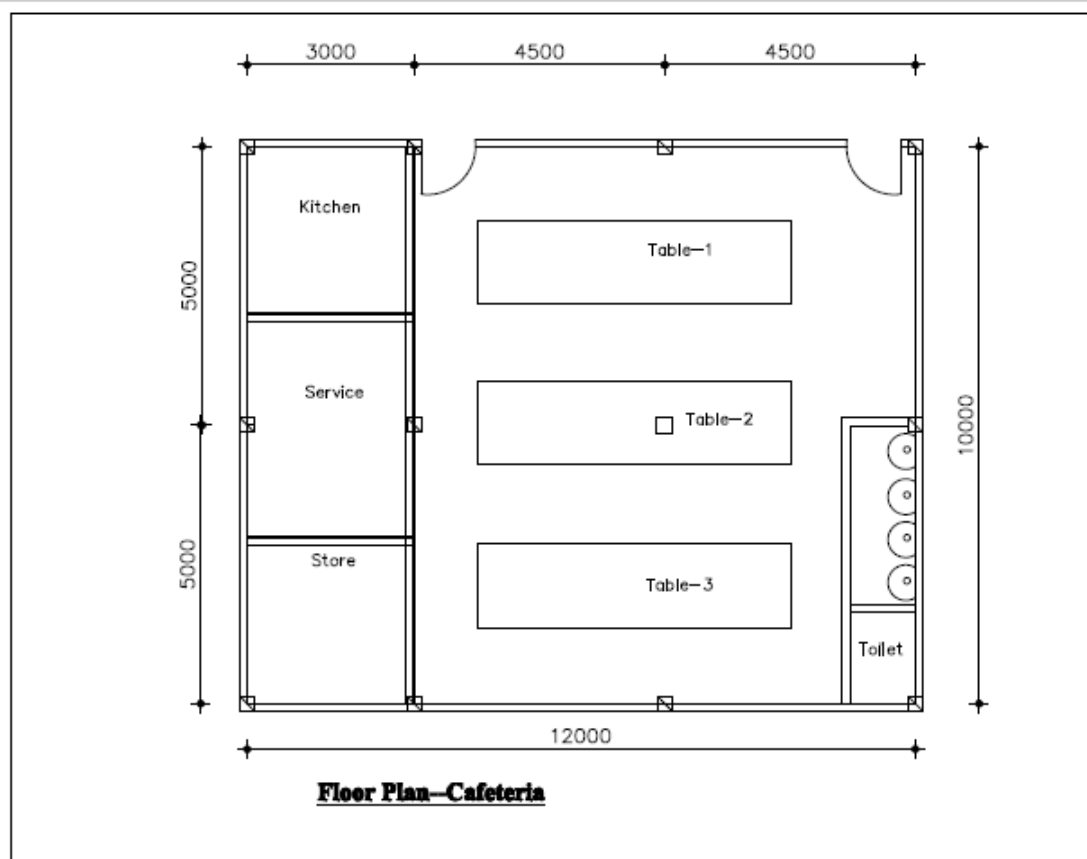


Figure 3-5: Floor Plan of Proposed Tin Shed Cafeteria

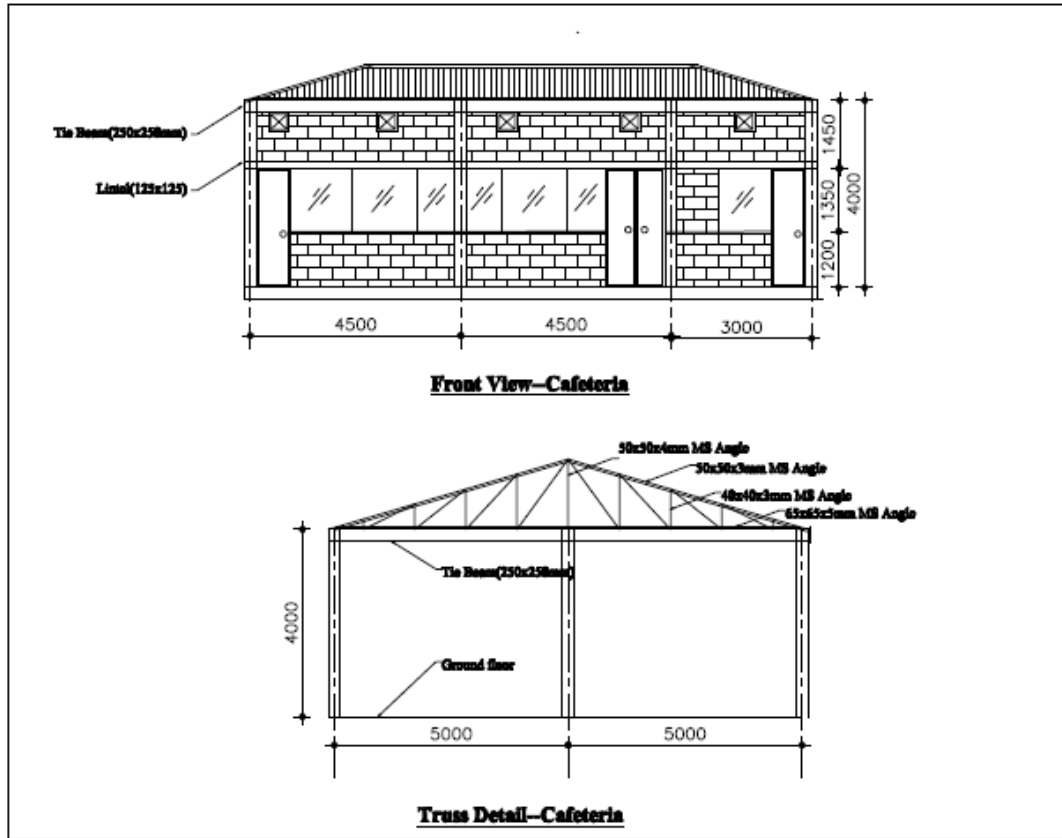


Figure 3-6: Front View and Truss Details of Proposed Tin Shed Cafeteria

4. Environmental Baseline

The project site at Khulna Technical Training Centre is located within an established institutional setting, characterized by existing educational infrastructure and controlled campus activities. The surrounding environment does not include any ecologically sensitive areas, and there are no protected wetlands, forests, or designated conservation zones within or adjacent to the project footprint. The site is already well-served by existing access roads, facilitating easy transportation of construction materials and equipment without the need for new access development. Basic utilities such as electricity, water supply, and drainage systems are available within the campus, minimizing the need for additional resource extraction or infrastructure expansion. Given these baseline conditions, the environmental impacts associated with the proposed construction works are expected to be minimal, temporary, and localized, occurring primarily during the construction phase and manageable through standard good construction practices.

5. Potential Environmental Impacts

5.1 Construction Phase Impacts

5.1.1 Dust Generation

At Khulna TTC, construction activities such as site preparation, excavation, internal road works, and movement of construction vehicles within the campus are expected to

generate dust. Given the presence of training facilities and regular trainee activities, fugitive dust may temporarily affect indoor and outdoor air quality, particularly in nearby workshops and classrooms. The impact is expected to be localized and short-term but may cause discomfort if not adequately controlled.

5.1.2 Noise from Machinery

Use of construction equipment and machinery within the Khulna TTC premises will generate noise during working hours. As the project is being implemented within an active training center, elevated noise levels may disrupt training sessions and administrative functions. The impact will be temporary and limited to the construction period but may require scheduling and control measures to minimize disturbance.

5.1.3 Minor Air Emissions

Construction vehicles and machinery operating inside Khulna TTC will produce minor air emissions from fuel combustion. These emissions, including exhaust gases, may slightly degrade air quality in the immediate construction zones. However, the impact is expected to be short-term and confined within the campus area.

5.1.4 Construction Waste Generation

The construction of the tin shed cafeteria, internal roads, and associated works at Khulna TTC will generate waste materials such as excavated soil, construction debris, and packaging waste. If not properly managed, these wastes may create temporary visual impacts, occupy usable space within the campus, and potentially obstruct movement or drainage systems.

5.1.5 Temporary Drainage Obstruction

Ongoing construction activities within the Khulna TTC campus, including material storage and minor drainage adjustments, may temporarily interfere with existing drainage paths. This could lead to localized waterlogging, especially during rainfall, affecting accessibility within the premises. The impact is expected to be short-term and manageable with proper site planning.

5.1.6 Occupational Health and Safety Risks

Construction workers at Khulna TTC will be exposed to typical occupational hazards such as dust, noise, equipment operation, and material handling. Inadequate safety practices may result in accidents or health risks. Given the institutional setting, ensuring strict adherence to safety protocols is essential to protect both workers and the surrounding campus community.

5.1.7 Minor Traffic Disturbance within Campus

The movement of construction vehicles and delivery of materials inside Khulna TTC may cause minor disruption to internal circulation. This could affect the routine movement of trainees, staff, and service vehicles within the campus. Although

impacts will be temporary, proper traffic management will be necessary to maintain safety and accessibility.

5.2 Operational Phase Impacts

5.2.1 Solid Waste Generation from Cafeteria

During the operation phase of Khulna TTC, the proposed cafeteria facility will generate solid waste, including food residues, packaging materials, and other biodegradable and non-biodegradable wastes. If not properly managed, such waste may lead to odor nuisance, attraction of pests, and deterioration of environmental hygiene within the campus. However, with the implementation of proper waste segregation, regular collection, and disposal measures, the impact is expected to remain minor and manageable.

5.2.2 Wastewater Discharge

Operation of the cafeteria and associated facilities at Khulna TTC will result in the generation of wastewater from washing, cleaning, and food preparation activities. Improper discharge of untreated wastewater may lead to localized contamination and sanitation concerns within the premises. Nevertheless, with appropriate drainage system and connection to existing sanitation infrastructure, the impact is expected to be minimal and manageable.

5.2.3 Routine Road Maintenance Requirements

The newly constructed internal roads within Khulna TTC will require periodic maintenance to ensure their usability and safety. Maintenance activities such as minor repairs and resurfacing may cause temporary inconvenience, including localized dust or minor traffic disruption within the campus. These impacts will be infrequent, short-term, and can be effectively managed through proper planning and maintenance practices.

5.2.4 Overall Nature of Impacts

The environmental impacts associated with the operation phase of Khulna TTC are expected to be minor, localized, and manageable. With the adoption of good operational practices, including proper waste management, drainage maintenance, and routine infrastructure upkeep, no significant adverse environmental impacts are anticipated.

6. Environmental Code of Practice (Mitigation Measures)

6.1 General Environmental Management

All construction activities at Khulna TTC shall be carried out in compliance with applicable national environmental regulations and project-specific safeguard requirements. Environmental management principles shall be integrated into all stages of project implementation to ensure minimal adverse impacts within the training center premises. The following general environmental management measures shall be

adopted by the Contractor to ensure compliance with applicable regulations and effective implementation of safeguard requirements at Khulna TTC. These measures are integral to maintaining environmental quality within the project site throughout the construction period.

- Contractor shall comply with all relevant national environmental laws and regulations.
- Environmental clauses shall be incorporated into bidding and contract documents.
- All works shall be confined within the approved project footprint inside the TTC campus.
- Employment of child labor shall be strictly prohibited.

6.2 Air Quality and Dust Control

Given the active institutional environment of Khulna TTC, effective dust suppression and air quality management measures shall be implemented to minimize impacts on trainees, staff, and nearby facilities during construction activities. To effectively control dust emissions and maintain acceptable air quality within the Khulna TTC campus, specific mitigation measures shall be implemented during construction. The Contractor shall adopt the following practices to minimize dust generation and air pollution impacts.

- Regular water spraying on exposed surfaces and internal roads.
- Covering of construction materials such as sand and cement.
- Vehicles transporting fine materials shall be properly covered.
- Avoid unnecessary idling of construction machinery and vehicles.

6.3 Noise Control

Noise-generating activities shall be managed to prevent disruption to ongoing training and administrative functions within Khulna TTC. Construction operations shall follow controlled scheduling and use appropriate equipment. To minimize noise disturbance within the Khulna TTC campus, appropriate control measures shall be strictly implemented during construction activities. The Contractor shall adhere to the following measures to ensure that noise levels remain within acceptable limits and do not disrupt training operations.

- Construction work shall be restricted to daytime (8:00 AM – 6:00 PM).
- Only well-maintained machinery and equipment shall be used.
- Workers shall use ear protection where necessary.
- Avoid simultaneous operation of high-noise equipment near classrooms and training areas.

6.4 Waste Management

Waste generated during construction at Khulna TTC shall be properly managed to prevent environmental contamination, maintain campus cleanliness, and ensure compliance with applicable waste management practices. To ensure effective waste management within the Khulna TTC campus, appropriate procedures shall be followed for the handling, storage, and disposal of both construction and hazardous

wastes. The Contractor shall implement the following measures to minimize environmental impacts and maintain site cleanliness.

Construction Waste

- Segregate recyclable materials such as steel and wood.
- Dispose of construction debris at approved municipal disposal sites.
- No dumping of waste within open areas of the TTC campus.

Hazardous Waste

- Hazardous waste generation is expected to be minimal.
- Used oil and lubricants shall be stored in sealed containers.
- Such waste shall be handed over to authorized recyclers or handlers.

6.5 Soil and Water Management

Construction activities shall be planned and executed to avoid soil degradation and prevent adverse impacts on drainage systems within Khulna TTC. To safeguard soil quality and maintain proper drainage within the Khulna TTC campus, specific control measures shall be implemented during construction activities. The Contractor shall follow the measures outlined below to prevent erosion, sedimentation, and waterlogging.

- Avoid blockage or disruption of existing drainage pathways.
- Stockpiles shall be placed away from drains and low-lying areas.
- No discharge of slurry or wastewater into campus drains.
- Temporary sediment control measures shall be implemented during earthworks.

6.6 Occupational Health and Safety (OHS)

Occupational health and safety measures shall be strictly enforced in accordance with the Bangladesh Labour Act and ADB Safeguard Policy Statement (SPS), ensuring a safe working environment within the TTC premises. To ensure compliance with occupational health and safety requirements and to protect workers within the Khulna TTC premises, specific safety measures shall be implemented throughout the construction period. The Contractor shall adhere to the following practices to minimize risks and ensure a safe working environment.

- Mandatory use of PPE (helmet, gloves, boots, masks) for all workers.
- First aid box shall be available at the construction site.
- Safe scaffolding and working-at-height practices shall be ensured.
- Electrical safety measures shall be strictly followed.
- Fire extinguishers shall be provided at appropriate locations.
- Emergency contact numbers shall be clearly displayed at the site.

6.7 Traffic and Access Management

Construction activities shall be managed to ensure uninterrupted access and safe movement within the Khulna TTC campus, minimizing inconvenience to trainees and staff. To maintain safe and efficient movement within the Khulna TTC campus during construction, appropriate traffic and access control measures shall be implemented.

The Contractor shall follow the measures outlined below to minimize disruption and ensure the safety of trainees, staff, and visitors.

- Maintain access to all training facilities and administrative buildings.
- Install appropriate warning signs and directional signage.
- Ensure safe pedestrian movement within the campus at all times.

6.8 Community Health and Safety

Special attention shall be given to protecting the health and safety of trainees, staff, and visitors within the Khulna TTC campus during construction activities. To safeguard the well-being of trainees, staff, and visitors within the Khulna TTC campus, appropriate community health and safety measures shall be implemented during construction. The Contractor shall adhere to the following measures to minimize risks and ensure a secure environment.

- Restrict unauthorized entry into construction areas.
- Provide proper fencing and barriers around active work zones.
- Inform TTC authority prior to commencement of major construction works.

6.9 Tree and Vegetation Protection

Existing trees and vegetation within the Khulna TTC premises shall be preserved to the extent possible, maintaining the ecological and aesthetic value of the campus. To protect existing vegetation and maintain the ecological balance within the Khulna TTC campus, appropriate measures shall be followed during construction activities. The Contractor shall implement the following practices to avoid unnecessary damage and ensure proper management of trees and greenery.

- Avoid cutting or damaging trees during construction.
- If removal is unavoidable, prior approval from the competent authority shall be obtained.
- Compensatory plantation shall be undertaken for any tree removed.

6.10 Cafeteria Operational Environmental Measures

Environmental management measures for the operation of the proposed cafeteria at Khulna TTC shall ensure proper handling of waste and wastewater, maintaining hygiene and environmental standards. To ensure hygienic operation and minimize environmental impacts from cafeteria activities at Khulna TTC, appropriate environmental management practices shall be strictly followed. The following operational measures shall be implemented to ensure proper handling of wastewater and solid waste within the facility.

- Install grease traps for kitchen wastewater management.
- Connect wastewater discharge to the existing septic or sewerage system.
- Solid waste shall be handed over to the municipal collection system.
- Promote waste segregation at source within the cafeteria facility.

7. Institutional Arrangement

Effective implementation of the Environmental Code of Practice (ECoP) for Khulna TTC requires clear institutional roles and coordination among the executing agency, project implementation units, consultants, contractors, and regulatory authorities. Each entity has defined responsibilities to ensure that environmental safeguards are properly integrated into project planning, construction, and operation phases.

The Executing Agency shall hold the overall responsibility for ensuring compliance with national environmental regulations and ADB safeguard requirements. The Project Implementation Unit (PIU), supported by the Skills Development Coordination and Monitoring Unit (SDCMU), shall oversee day-to-day environmental monitoring and reporting. The Engineering/Supervision Consultant shall provide technical oversight and ensure that the contractor adheres to the approved ECoP during construction. The Contractor shall be directly responsible for implementing all mitigation measures at the site.

Regular coordination among these entities shall be maintained through site inspections, progress meetings, and reporting mechanisms to ensure timely identification and resolution of environmental issues.

Table 7.1: Institutional Responsibilities for ECoP Implementation (Khulna TTC)

Responsibility	Entity	Key Functions
Overall Compliance	Executing Agency	- Ensure compliance with national environmental laws and ADB SPS requirements- Approve environmental plans and reports- Provide overall guidance and resources for ECoP implementation
Site Supervision	Engineering/Supervision Consultant	- Supervise construction activities on-site- Ensure contractor's compliance with ECoP and contract conditions- Conduct regular site inspections- Advise on corrective actions
Implementation of ECoP	Contractor	- Implement all mitigation measures as per approved ECoP- Maintain environmental, health, and safety standards at site- Provide necessary resources, equipment, and trained personnel- Keep records of environmental compliance
Monitoring	PIU / SDCMU	- Conduct periodic environmental monitoring- Review contractor's compliance and documentation- Prepare and submit monitoring reports to Executing Agency and ADB- Coordinate with supervision consultant for corrective actions

8. Environmental Monitoring Plan

The Environmental Monitoring Plan (EMP) for Khulna TTC has been developed to ensure effective implementation of the Environmental Code of Practice (ECoP) and to verify that mitigation measures are properly applied during construction and operation phases. The plan outlines the key environmental parameters to be monitored, along with monitoring locations, frequency, responsible entities, and means of verification.

Monitoring activities shall be carried out primarily during the construction phase, as most impacts are short-term and site-specific. The Contractor shall conduct routine monitoring and maintain records, while the Engineering/Supervision Consultant and PIU/SDCMU shall perform periodic inspections and compliance verification. During the operation phase, monitoring will focus on sanitation, waste management, and maintenance practices within the Khulna TTC premises.

All monitoring results shall be documented and reported to the Executing Agency, and corrective actions shall be undertaken in case of non-compliance.

Table 8.1: Environmental Monitoring Plan for Khulna TTC

Aspect	Parameter	Location	Frequency	Responsibility	Means of Verification
Air Quality (Dust)	Visual dust levels, presence of suppression measures	Construction site, internal roads, near classrooms/workshops	Daily (visual), Weekly (inspection)	Contractor / Supervision Consultant	Site inspection reports, photographs
Noise	Noise levels (qualitative), working hours compliance	Construction areas near training facilities	Daily (observation), Weekly (inspection)	Contractor / Supervision Consultant	Site logs, inspection records
Air Emissions	Vehicle emissions (visual smoke), idling control	Construction site	Weekly	Contractor / Supervision Consultant	Equipment maintenance records
Construction Waste	Waste segregation, storage, disposal practices	Designated waste storage areas within TTC	Weekly	Contractor / PIU	Waste records, disposal receipts, site inspection
Hazardous Waste	Storage and handling	Construction site	Monthly or as generated	Contractor / PIU	Storage records, handover

	of used oil/lubricants				receipts
Drainage and Water Management	Drain blockage, waterlogging, sediment runoff	Site drainage points within TTC	Weekly and after rainfall	Contractor / Supervision Consultant	Inspection reports, photographs
Soil Management	Stockpile management, erosion control	Excavation and storage areas	Weekly	Contractor / Supervision Consultant	Site inspection records
Occupational Health & Safety	PPE usage, safety practices, incidents	Entire construction site	Daily (monitoring), Monthly (reporting)	Contractor / PIU	PPE logs, incident reports
Traffic Management	Access condition, signage, pedestrian safety	Internal roads within TTC	Weekly	Contractor / Supervision Consultant	Inspection reports
Community Health & Safety	Site fencing, restricted access, safety awareness	Construction boundary areas	Weekly	Contractor / PIU	Site inspection, photographs
Tree Protection	Tree condition, damage or removal	TTC campus	Monthly	Contractor / PIU	Inspection records
Cafeteria Operation (Solid Waste)	Waste segregation and disposal	Cafeteria area	Daily (operation), Monthly (review)	TTC Authority / PIU	Waste collection records
Cafeteria Wastewater	Drainage connection, grease trap function	Cafeteria facility	Monthly	TTC Authority / PIU	Maintenance logs, inspection
Road Maintenance (Operation Phase)	Surface condition, drainage condition	Internal roads within TTC	Quarterly	TTC Authority	Maintenance records

9. Grievance Redress Mechanism (GRM)

9.1 Grievance Redress Mechanism

The objective of the grievance redress mechanism (GRM) is to resolve complaints as quickly as possible and at the local level through a process of conciliation; and, if that is not possible, to provide clear and transparent procedures for appeal. A well-defined grievance redress and resolution mechanism will be established to resolve grievances and complaints in a timely and satisfactory manner. All affected persons will be made fully aware of their rights, and the detailed grievance redress procedures will be publicized through an effective public information campaign. The grievance redress process includes two levels as Program Level (Layer 1) and Site Level (Layer 2). This project will likely trigger both environmental and social impacts and therefore the GRC will need be able to address both areas. A grievance redress committee is formed at site level at Khulna TTC sub-project. Table 9.1 shows GRM Sub-Committee for construction of approach road, cafeteria and others ancillary works at Khulna TTC below.

Table 9.1: GRM Sub-Committee for construction of approach road, cafeteria and others ancillary works at Khulna TTC

Sl.	Name	Designation	Position	Email Address	Contract No
01	Md. Ziaur Rahman	Principal, Khulna TTC	Convenor	ttckhu@gmail.com	01716966627
02	Mintu Gazi	Contractor's Representative	Member	msgmmintu@gmail.com	01622951374
03	Abul Khair	Site Engineer, SICIP	Member Secretary	abul.khair@sicip.gov.bd	01332810897

9.2 Functions of the Site Level Committee (Layer 2)

- Receive complaints from trainees, staff, community people, workers.
- Maintain a complaint register at the site.
- Investigate site-specific issues (e.g., noise, safety, access, admission, enrollment).
- Coordinate with contractors, site engineers, and training administrators for resolution.
- Prepare both monthly & quarterly reports on GRM activities.
- Refer unresolved complaints to the Program-Level GRM Committee.
- In case of construction sector, orienting site engineers, contractors, labors about labor right and safety issue, awareness building on using sub-standards materials (rod, cement, sand, tiles etc.) and fitting and fixtures, non-maintaining of proper ratio of cement and sand, etc., and
- If necessary, the committee may include any with the permission from PIU.

9.3 Complaint Handling Process of the Site Level Committee (Layer-2)

Acknowledgement: Complaint must be acknowledged within 3 working days.

Investigation & Resolution: Issue must be investigated and resolved within 10

working days.

Communication: Resolution must be communicated to the complainant within 15 working days, and

Escalation: If unresolved, escalate to the Program-Level GRM Committee (Layer 1).

Channels for Receiving Complaints

Online: SICIP's existing GRM form (to be enhanced for clarity and accessibility).

Offline: Complaint registers at each site.

Mobile: Contact numbers of GRM focal persons displayed at site level mentioning the mobile no of program level contact persons.

Monitoring and Reporting Requirements

- Maintain sex-disaggregated data for all complainants, including those from Small Ethnic Communities (SECs).
- Track and categorize types of grievances (e.g., safety, access, inclusion, gender-based, SEC- specific), and
- Record and monitor resolution timelines for each complaint to ensure compliance with the GRM process.

Maintain a complaint status log showing

- Total number of complaints received
- Number of complaints resolved
- Number of unresolved or pending complaints, and
- Status of each complaint (e.g., under review, resolved, escalated).

Include a summary of GRM performance in quarterly progress reports, covering

- Number and types of complaints received
- Resolution rates and average resolution time, and
- Actions taken to address systemic or recurring issues.

9.4 Publicizing the Grievance Redress Steps and the Committee

Prior to the start of the construction, Khulna TTC or its representative will publicize the establishments of the grievance redress mechanism and advertise all via contact information and the GRM posted at local government office involved, as well as at busy public places in the Project corridor. The poster(s) will be in the local language(s) and posted within 30 days of the start of construction. The Khulna TTC representative will check at least monthly to ensure that the posters are prominently displayed and provide clear contact instructions and numbers. This procedure and

monitoring will be reported in the monitoring report submitted to the ADB.

Any grievance filed with the GRC, must be reported in the Semi-annual environmental monitoring report submitted to ADB.

9.5 Construction Workers Grievance

At construction sites, work camps and on-the-job, labors and other unskilled hired employees of the contractor have little recourse when either their living conditions are badly degraded, they are not paid according to agreement, or basics, such as potable water, are not supplied. Under this contract, as part of the written agreement with each hire, the contract or letter of assignment with the work will include the name and contact information of an Khulna TTC and/or the CSC's employee for the worker to contact. The letter/agreement will contain a second statement indicating that the contractor will not penalize the worker for reporting a complaint and if that occurs, the contract will be levied a fine equal to the employees' contract duration from the time of the incident to the end of the contract period. That amount will be paid to the complainant.

The contractor will provide a compliant box, sealed by the CSC, and collected by the CSC, thus allowing the construction worker to file complaints by going directly to the CSC.

10. Reporting Requirements

Effective environmental reporting is essential to ensure compliance with the Environmental Code of Practice (ECoP) for Khulna TTC and to facilitate timely identification and resolution of any issues during project implementation. The Contractor, under the supervision of the Engineering/Supervision Consultant and oversight of the PIU/SDCMU, shall maintain proper documentation and submit periodic reports in accordance with project requirements.

Monthly Environmental Compliance Report

The Contractor shall prepare and submit a monthly environmental compliance summary report to the Supervision Consultant and PIU/SDCMU. The report shall include the status of ECoP implementation, monitoring results, site conditions, photographs, and any corrective actions undertaken.

Incident Reporting

Any environmental, health, or safety incident, including accidents or near misses, shall be reported within 24 hours to the Supervision Consultant and PIU/SDCMU. A detailed incident report, including cause analysis and corrective measures, shall be submitted subsequently.

Final Environmental Compliance Certificate

Upon completion of construction activities, the Contractor shall submit a final environmental compliance report summarizing overall adherence to the ECoP. Based on satisfactory compliance, a completion or environmental compliance certificate

shall be issued by the competent authority/Executing Agency prior to project handover.

11. ECoP Implementation Schedule

The ECoP Implementation Schedule of Khulna TTC covers a nine-month implementation period from 16 October 2025 to 15 July 2026, aligned with construction activities. Table 11-1 shows the ECoP implementation schedule below.

Table 11.1: ECoP Implementation Schedule

Activity	Oct 2025 (16 D)	Nov 2025 (30 D)	Dec 2025 (31 D)	Jan 2026 (31 D)	Feb 2026 (28 D)	Mar 2026 (31 D)	Apr 2026 (30 D)	May 2026 (31 D)	Jun 2026 (30 D)	Jul 2026 (15 D)
Mobilization & Site Setup										
General Environmental Management										
Air Quality & Dust Control										
Noise Control										
Waste Management										
Soil & Water Management										
Occupational Health & Safety (OHS)										
Traffic & Access Management										
Community Health & Safety										
Tree & Vegetation Protection										
Cafeteria Environmental Measures (Construction Phase)										
Monitoring (Contractor/Consultant/PIU)										
Monthly Reporting										
Incident Reporting (as required)										
Final Environmental Compliance Review										

12. Budget for ECoP Implementation

The costs associated with the implementation of the Environmental Code of Practice (ECoP) for Khulna TTC shall be incorporated within the Contractor's Bill of Quantities (BOQ) and contract provisions. These costs are considered part of standard construction practices and shall not require a separate budget line. The allocated budget shall adequately cover all necessary environmental mitigation and management measures, including:

- Provision and use of personal protective equipment (PPE) for workers

- Dust suppression measures (e.g., water spraying, material covering)
- Installation of safety signage and barricades
- Collection, transportation, and disposal of construction waste
- Safe handling and disposal of hazardous materials (if any)
- Installation of grease traps for cafeteria wastewater management

Proper allocation and utilization of these resources shall ensure effective implementation of the ECoP without additional financial burden beyond the approved project cost.

13. Conclusion

The proposed development works at Khulna Technical Training Centre (TTC) are limited in scale and will be implemented within an existing institutional campus, posing low environmental risk. With the effective implementation of the Environmental Code of Practice (ECoP), the project is expected to comply with the requirements of the ADB Safeguard Policy Statement (2009) and applicable environmental regulations of Bangladesh. Anticipated environmental impacts are short-term, localized, and reversible in nature, and can be adequately managed through the prescribed mitigation and monitoring measures, ensuring no significant adverse effects on the surrounding environment.