



**GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH**

**Local Government Engineering Department (LGED)**

**Local Government Division**

**Ministry of Local Government, Rural Development and Cooperatives**

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## **ENVIRONMENTAL AND SOCIAL ASSESSMENT (ESA) REPORT FOR**

**Package No: RUTDP/MIR/2024-25/W-01**

**at**

**Mirsharai Pourashava, Chattogram**



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**Resilient Urban and Territorial Development Project (RUTDP)**

**Sub-Project Preparation Team, RUTDP, LGED**

## Environmental and Social Assessment (ESA) Summary

Package No: RUTDP/MIR/2024-25/W-02

Location: Mirsharai Pourashava, Chattogram

### 1. Introduction

#### Background:

Mirsharai Pourashava, established in 2001, spans **10.50 sq.km** with a population of **16,218** (2011 census). Despite rapid urbanization, infrastructure development is lagging, with poor road, drainage, and streetlight conditions. The subproject, part of the **Resilient Urban and Territorial Development Project (RUTDP)**, aims to upgrade core municipal infrastructure.

#### Objectives:

- Assess baseline environmental and social conditions.
- Identify positive/negative impacts of construction and operation.
- Propose mitigation, enhancement, and monitoring measures through an **Environmental and Social Management Plan (ESMP)**.

#### Methodology:

- Desktop study of plans, policies, and past reports.
- Field investigations, site visits, consultations with local officials and community.
- Analysis of environmental, social, and technical data.

### 2. Subproject Description

**Scope:** Rehabilitation and replacement of:

- **RCC pavements and drains** (with footpaths and outfalls).
- **Bituminous carpeting (BC) roads.**
- **Street lighting facilities.**

#### Key Roads Covered:

- Abdul Latif Sikder Road (560m, BC)
- Hazi Ruhul Amin Road (550m, RCC)
- Amjad Hossain Road (700m, RCC)
- Nopara Road (710m, RCC)
- Mukim Bhyian & Kalitola Road (880m, RCC)
- Tofayel Ahmed Road (635m, RCC)
- Mowlana Abdul Latif Road (1.85 km, RCC + drain + streetlight)
- Mir Community Center Road (280m, RCC + footpath + lighting)



**Existing Road Condition**

**Need & Justification:**

- Roads are damaged, narrow (3–6m), potholed, and unsafe.
- Existing drains are **silted, discontinuous, and lack proper outfall**, leading to **severe waterlogging during monsoon**.
- Absence of streetlights creates night-time safety risks.
- Expected benefits: smoother transport, reduced flooding, safer mobility, enhanced commerce, and stronger governance.

**Category:**

- **ECR 2023:** Orange (Roads & drains), Green (Streetlights).
- **World Bank ESF:** *Moderate Risk* subproject.

**3. Baseline Environmental and Social Conditions****Physical Environment:**

- **Elevation:** 3.3m – 12.1m PWD; soils are silty clays, moderately fertile but acidic.
- **Climate:** Tropical monsoon with **2,540 mm annual rainfall**.
- **Hydrology:** 8 major khals (e.g., Molihas Khal, Amir Khal) – surface water unfit for drinking; groundwater safe except for **arsenic and iron contamination**.
- **Flooding:** Area is mostly flood-free but prone to monsoon waterlogging.
- **Air & Noise:** Generally clean, but dust, traffic emissions, and noise from vehicles are local issues.
- **Waste:** Poor community disposal practices; wastes often dumped in drains and khals.

**Biotic Environment:**

- **Vegetation:** Mango, Jackfruit, Rain Tree, Mahogany, Coconut, Bamboo, etc.
- **Fauna:** Birds, reptiles, fish species, mongoose (IUCN vulnerable).
- Wetlands provide seasonal bird habitat.

**Socio-economic Environment:**

- Population benefiting: ~14,100 directly.
- Literacy rate: **58.9%**, higher than national average.
- No tribal/indigenous communities present.
- No cultural or heritage sites in project area.
- Land acquisition not required – minor voluntary dispossession (tin sheds/fences).

**4. Environmental & Social Impacts****Construction Phase:**

- **Air & Noise:** Dust from earthwork, emissions from vehicles and machinery.
- **Water Quality:** Risk of contamination from construction waste, oils, or effluents.
- **Tree Felling:** 320 roadside trees to be cut.
- **Health & Safety:** Risks of dehydration, accidents, dust inhalation, machine injuries.
- **Traffic:** Temporary congestion; mitigated through section-wise work and diversion plans.
- **Labor Influx:** May cause strain on resources, risks of GBV, disease spread, and social conflicts.
- **Community:** Partial damage to roadside structures (with prior consent).

**Operation Phase:**

- **Positive:**
  - Improved transport and trade.
  - Reduced waterlogging.
  - Safer night-time mobility with streetlights.
  - Employment and livelihood growth.

- **Negative (manageable):**
  - Increased traffic emissions and noise.
  - Solid waste accumulation if unmanaged.

## 5. Mitigation & Enhancement Measures

### Tree Felling Compensation:

- Planting **450 trees** (fruit, shade, ornamental, medicinal species) with bamboo fencing and regular monitoring.

### Construction Management:

- Dust suppression (water spraying, covering stockpiles).
- Safe waste disposal at Ambaria dumping site.
- Noise reduction (mufflers, work timing controls).
- Proper drainage management to avoid waterlogging.

### Worker Health & Safety:

- Provision of PPE, first aid kits, and safe labor sheds.
- Training on occupational safety.
- Contractor to bear accident compensation costs.

### Community Safety:

- Traffic signs, fencing work sites, liaison with local leaders.
- Schedule heavy transport during off-peak hours.

### Labor Influx Controls:

- Prioritize local hiring.
- Monitor worker behavior, provide health checks.
- Awareness on gender-based violence and communicable diseases.

## 6. Environmental & Social Management Plan (ESMP)

- **Institutional Arrangement:** LGED (PIU, PMU), DSM consultants, Pourashava officials, and contractors share responsibility.
- **Monitoring Plan:** Visual and analytical monitoring of air, water, noise, soil, waste.
- **Capacity Building:** Training for Pourashava staff, contractors, and workers.
- **Emergency Response:** Disaster preparedness plan integrated with local governance.
- **Budget:** Cost of ESMP measures included in BOQ.
- **Grievance Redress Mechanism (GRM):** Local GRC to address complaints promptly.

## 7. Public Consultation

- **Concerns Raised:** Poor drainage, waterlogging, sanitation issues, solid waste mismanagement, unsafe road conditions.
- **Community Response:** Strong support; willingness to remove structures voluntarily.
- **Recommendations:** Quality construction, adequate drainage outfalls, proper waste management, minimize social impacts during construction.

## 8. Conclusions & Recommendations

- Subproject classified as **Orange (ECR 2023)** and **Moderate Risk (WB ESF)**.
- Impacts are **localized, temporary, and manageable** with proper ESMP implementation.
- No land acquisition or indigenous community impacts.
- Strong community demand and support ensure smooth implementation.
- Upon completion, the project will provide **long-term socio-economic and environmental benefits**, including:
  - Improved road connectivity and safety.
  - Effective drainage and reduced flooding.
  - Safer night mobility.
  - Boosted commerce and livelihoods.