



GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH

Local Government Engineering Department (LGED)

Local Government Division

Ministry of Local Government, Rural Development and Cooperatives

ENVIRONMENTAL AND SOCIAL ASSESSMENT (ESA) REPORT FOR

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

at

Madhabdi Pourashava, Narsingdi



Resilient Urban and Territorial Development Project (RUTDP)

Sub-Project Preparation Team, RUTDP, LGED

Environmental and Social Assessment (ESA) Report Summary
Package No: RUTDP/MDI/2024-25/W-02
Location: Madhabdi Pourashava, Narsingdi
Project: Resilient Urban and Territorial Development Project (RUTDP)

1. Introduction

Madhabdi Pourashava, an “A” grade municipality established in 1994, spans 6.09 km² with a population of ~79,215 (Census 2022). Known historically as a textile hub, the Pourashava faces challenges of deteriorated infrastructure, poor drainage, and inadequate street lighting.

The subproject under RUTDP focuses on **rehabilitation of RCC roads, RCC drains with footpaths, and installation of streetlights** to address traffic congestion, drainage problems, and safety issues.

Objectives of ESA:

- Establish baseline environmental and social conditions.
- Identify and assess construction/operation phase impacts.
- Propose mitigation and enhancement measures through an Environmental and Social Management Plan (ESMP).

The methodology included **desktop study, field surveys, stakeholder consultations, and data analysis**

2. Subproject Description

Location and Activities

The works will cover Wards 3, 8, 9, and 11 of Madhabdi Pourashava.

- **Activity 1:** ~952 m RCC road with RCC drain and street lighting (Suchana Textile More → Madanganj Rail Line, including 3 link roads).
- **Activity 2:** ~4781 m RCC road with RCC drain and street lighting (Madhabdi Cattle Hat → Natun Bazar via Tithi Textile & Loto Babu Mile).

Current Situation and Need

- Roads are narrow, potholed, and waterlogged during rains.
- Existing drains are damaged, silted, and lack proper outfall.
- Absence of street lighting poses traffic and safety risks.



Expected Benefits

- Improved traffic flow and connectivity.
- Reduced waterlogging and drainage congestion.
- Enhanced business activities and urbanization.

- Night-time safety for pedestrians and vehicles.
- Direct benefits to ~27,000 residents of affected wards

Classification

- **ECR 2023:** Orange (Moderate risk) for roads & drains; Green (Low risk) for street lighting.
- **World Bank ESF:** Overall Moderate risk.
Thus, a detailed ESA with ESMP is sufficient (no need for full ESIA).

3. Baseline Environmental and Social Conditions

Physical Environment:

- Located on Old Brahmaputra Floodplain (Zone-2 seismic area).
- **Soils:** Non-calcareous and calcareous floodplain soils.
- **Climate:** Tropical monsoon with hot summers and wet monsoon.
- **Hydrology:** Old Brahmaputra River, ponds, ditches; groundwater shallow but arsenic/iron-affected.
- **Drainage:** Inadequate, causing temporary waterlogging.

Air & Noise:

- Air quality generally fair but affected by traffic and open waste burning.
- Noise from vehicles, bazaars, and construction machinery; mostly within tolerance.

Biotic Environment:

- Roadside trees (Rain tree, Mahogany, Mango, Coconut, etc.).
- Habitats include wetlands and ponds; some vulnerable fauna like mongoose observed.

Socio-economic:

- High population density with mixed land use (residential, commercial, industrial).
- Literacy rate ~66.5%.
- No indigenous/tribal settlements (ESS7 not triggered).
- No land acquisition required; minor voluntary relocation of small structures agreed with owners.

4. Environmental & Social Impacts

Construction Phase (Negative Impacts)

- Dust, noise, vibration from dismantling, excavation, and RCC works.
- Tree felling (~40 roadside trees).
- Risk of accidents, occupational hazards, and poor labor camp management.
- Temporary traffic disruption.
- Improper waste disposal risks water/soil contamination.
- Potential labor influx leading to social tensions, waste generation, and health issues.

Operation Phase (Potential Risks)

- Increased air & noise from traffic.
- Drain maintenance issues may lead to blockages.
- Improper solid waste disposal may affect drains.

Positive Impacts

- Better transport connectivity and reduced waterlogging.
- Safer mobility due to street lighting.
- Employment opportunities during and after construction.
- Enhanced business and urban growth

5. Mitigation & ESMP

Key Measures

- **Dust & Noise:** Regular water spraying, covering stockpiles, restricting work to day hours.
- **Tree Felling:** Compensatory plantation of 200+ fruit, ornamental, and native trees.
- **Occupational Health & Safety:** PPE, first aid, shaded rest areas, accident compensation policy.
- **Traffic Management:** Section-wise construction, diversion routes, signage.
- **Waste Management:** Designated dumping site, safe storage of fuel/lubricants.
- **Labor Influx:** Preference for local workers, monitoring worker behavior, awareness sessions.
- **Community Engagement:** Ongoing consultations, grievance redress mechanism (GRC).

ESMP Framework

- **Institutional Setup:**
 - PMU (LGED), PIU (Madhabdi Pourashava), DSM consultants, and contractors.
 - Monthly and quarterly ES compliance reports to World Bank.
- **Capacity Building:** Training for PIU staff, contractors, and workers on ESMP implementation.
- **Monitoring:** Visual and analytical monitoring of air, noise, drainage, waste, and tree plantation.
- **Budget:** Environmental and social mitigation costs integrated in BOQ.

6. Public Consultation

- Conducted with Pourashava officials, Mayor, engineers, and community representatives.
- Concerns: drainage congestion, road conditions, sanitation, solid waste management, water pollution.
- Community fully supports the subproject; emphasized quality construction and proper waste disposal.
- Recommendations: improved communication, capacity building, scheduling to reduce disruptions, priority on drainage and waste management

7. Conclusion and Recommendations

- The Madhabdi Pourashava subproject is environmentally and socially beneficial with manageable risks.
- Impacts are **localized, temporary, and mitigable** through ESMP.

Key recommendations:

1. Strict adherence to ESMP during construction and operation.
2. Ensure compensatory tree plantation and maintenance.
3. Strengthen solid waste management alongside drainage improvements.
4. Provide adequate training, PPE, and safety supervision.
5. Engage community continuously for transparency and grievance handling.

Overall, the project is expected to significantly improve road connectivity, drainage efficiency, safety, and socio-economic conditions for ~27,000 residents, thereby accelerating the sustainable urban development of Madhabdi Pourashava.