



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/BRG/ 2024-25/W-01

at

Birganj Pourashava, Dinajpur



Resilient Urban and Territorial Development Project (RUTDP)

Sub-Project Preparation Team, RUTDP, LGED

1. Introduction

Background

Birganj Pourashava, located about 32 km northeast of Dinajpur town, is a B-grade municipality established in 2002 covering 6.3 sq km with a population of 19,467 (BBS 2011). Rapid urbanization has created a pressing need for improved urban infrastructure, particularly roads, drains, and streetlights.

Under the **Resilient Urban and Territorial Development Project (RUTDP)** of LGED, the proposed subproject includes:

- Rehabilitation/replacement of **RCC pavements** and **bituminous carpeting (BC) roads**;
- Construction of **RCC drains with allied works**;
- Installation of **street lighting** for improved safety and mobility.

Objectives

The ESA aims to:

- Assess existing environmental and social conditions;
- Identify potential impacts during construction and operation;
- Develop an Environmental and Social Management Plan (ESMP) to mitigate negative effects and enhance benefits.

Methodology

The study combined:

- **Desktop review** of maps, reports, and legal frameworks;
- **Field surveys and consultations** with Pourashava officials and communities;
- **Data analysis** and report preparation aligned with World Bank Environmental and Social Framework (ESF).

2. Subproject Description

Location and Components

The project covers **Wards 2, 8 and 9** of Birganj Pourashava and includes:

1. **1,057 m RCC Drain** – Kaharul More → Fire Brigade → Rajjak House.
2. **715 m BC Road + Streetlights** – Momin House → Jail Khana Mosque.
3. **947 m BC Road + RCC Drain + Streetlights** – Center Mor → Shahi Mosque.

Current Situation and Need

Existing roads are **damaged**, narrow, and lack drainage and lighting.

- Waterlogging during monsoon due to **poor outfall connections** to the **Dhepa River** disrupts traffic and damages roads.
- Absence of **street lighting** limits safety and nighttime mobility.

The interventions will significantly enhance **traffic flow, drainage efficiency, business growth, and public safety**.



Justification

Identified through LGED's **Capital Investment Plan (CIP)** and **Feasibility Study**, the subproject was prioritized for early implementation.

- It requires **no private land acquisition**; most lands are municipally owned.
- Minimal ecological impacts limited to a few trees.
- Approximately **4,800 people** will benefit directly, with wider indirect impacts on livelihoods and commerce.

Implementation Overview

Key activities:

- Site clearing, dismantling, excavation, and backfilling;
- Construction of RCC drains and BC roads;
- Installation of streetlights and tree plantation.

Major equipment: excavators, compactors, mixers, rollers, and asphalt plant.

Regulatory Classification

Component ECR 2023 Category WB ESF Risk Level

Roads & Drains Orange Moderate

Streetlights Green Low

Hence, a full ESIA is not required; this **ESA with ESMP** suffices.

3. Baseline Environmental and Social Conditions

Physical Environment

- **Geology & Soils:** Located on the *Rangpur Saddle*, elevation $\approx 43\text{--}44$ m PWD, with non-calcareous brown floodplain soils, moderately acidic.
- **Seismicity:** Zone II (moderate risk).
- **Climate:** Warm, temperate (Cwa); mean annual temp ≈ 24.6 °C, rainfall $\approx 2,000$ mm concentrated in May–Oct.
- **Hydrology:** Dhepa River and ponds form the main water system; groundwater table 0–7 m bgl with high iron but low arsenic.
- **Flooding:** Generally, flood-free; localized waterlogging due to poor drainage.
- **Air & Noise:** Currently acceptable; traffic and waste burning are main pollution sources.
- **Waste Management:** A dumping site exists near Kongorpur, but waste segregation and awareness are limited.

Biotic Environment

- Vegetation includes **mango, mahogany, neem, rain tree, kadam, arjun**, and others.
- Common fauna: **birds (doel, shalik, bulbul), rodents, frogs**, and **snakes**.
- No endangered species or ecologically sensitive habitats were identified.

Socio-economic Context

- **Land Use:** Core urban area with mixed residential, commercial, and institutional land.
- **Population:** ~4,800 direct beneficiaries in Wards 2, 8 and 9.
- **Literacy:** ~65.7% (above national average).
- **Indigenous People:** None present.
- **Resettlement:** No land acquisition required; minor voluntary removal of encroachments agreed with owners.
- **Livelihoods:** Predominantly non-farm—small business, trade, transport, and services.
- **Cultural Heritage:** None affected.

4. Environmental and Social Impacts and Mitigation

Impact Overview

Impacts are **localized, temporary, and manageable**.

Positive effects—improved mobility, reduced flooding, business growth, and better safety—significantly outweigh the negatives.

Phase	Major Issues	Mitigation Measures
Pre-construction / Site Prep	Dust, noise, waste, minor disruption	Schedule works, restrict timing, inform community, avoid topsoil loss, use covered transport.
Construction	Air pollution, noise/vibration, occupational risks, waste, traffic congestion	Water sprinkling, vehicle maintenance, PPE for workers, proper waste disposal at designated sites, traffic management with signage.
Ecology/ Vegetation	Minor vegetation loss	Plant 60 local trees (mango, neem, jam, rain tree, etc.) with fencing and watering; monitor growth.
Community Health & Safety	Accidents, dust, open trenches	Install barricades and warning signs, maintain access routes, ensure streetlight installation for safety.
Operation Phase	Roadside waste, noise, minor maintenance issues	Periodic maintenance, solid waste management, monitoring air/noise levels.

Occupational Health & Safety

- PPE (helmets, gloves, masks, boots);
- Clean, ventilated labor sheds;
- Adequate sanitation and waste bins;
- First-aid kits and accident compensation;
- Training on safe machinery handling and emergency response.

Social Impacts

- No land acquisition or displacement.
- Temporary livelihood disruption minimized through community consultation.
- Gender and GBV risks to be addressed through contractor code of conduct and awareness.

Risk Assessment

The overall **Environmental & Social Risk Rating = Moderate** under WB ESF. All risks are controllable using **Environmental and Social Codes of Practice (ESCoPs)** and ESMP measures.

5. Environmental and Social Management Plan (ESMP)

Institutional Framework

- **PMU, LGED:** Overall compliance and coordination;
- **PIU (Pourashava):** Local supervision;
- **DSM Consultants:** Technical monitoring;
- **Contractor:** ESMP implementation and reporting.

Key Components

1. **Access to Information:** ES documents to be shared publicly at Pourashava and LGED websites.
2. **Capacity Building:** Training of contractor, LGED, and Pourashava staff on E&S compliance.
3. **Emergency Preparedness:** Plan for accidents, spills, and natural hazards.
4. **Monitoring:**
 - **Visual monitoring** (air, noise, waste, waterlogging) during construction;
 - **Analytical monitoring** for water and air quality if required.
5. **Budget:** Environmental and social mitigation costs included in BOQ (Environmental & Social Measurement Budget).
6. **Grievance Redress Mechanism (GRM):**
 - Multi-tier committee (Ward, Pourashava, Project levels);
 - Logbook for complaints and resolution tracking.

6. Public Consultation and Participation

Consultation Process

Meetings held with Pourashava officials, community members, and local business owners.

Key Concerns Raised

- Drainage improvement to reduce waterlogging;
- Road quality and durability;
- Safety during construction;
- Employment opportunities for locals.

Community Feedback

Participants unanimously welcomed the project, appreciating improved access, trade opportunities, and better living conditions. Suggestions included **timely construction**, **night-time safety**, and **proper waste management**.

7. Conclusions and Recommendations

- The Birganj subproject will substantially improve **urban connectivity, drainage, sanitation, and overall resilience**.
- **Environmental and social impacts** are site-specific, short-term, and fully manageable through mitigation measures.
- **No involuntary resettlement** or displacement is required.
- The subproject is categorized as **Orange (ECR 2023)** and **Moderate Risk (WB ESF)**—thus only ESA + ESMP is needed.
- Continuous monitoring, stakeholder engagement, and adherence to the ESCoPs will ensure sustainability.

Recommendation: Proceed with implementation upon integrating the ESMP into the contractor's work plan, ensuring strict compliance with LGED and World Bank guidelines.