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/PAR/2024-25/W-01
at
Parbatipur Pourashava, Dinajpur

Resilient Urban and Territorial Development Project (RUTDP)

Sub-Project Preparation Team, RUTDP, LGED

ENVIRONMENTAL AND SOCIAL ASSESSMENT (ESA) SUMMARY
Package No: RUTDP/PAR/2024-25/W-01
Location: Parbatipur Pourashava, Dinajpur

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1. Introduction

Parbatipur Pourashava, established in 1972, is an "A" grade municipality covering 10.88 sq. km with a population of ~44,726 (Census 2022). The area has 70% pucca and 30% kutcha roads, and about 75% drainage coverage. However, rapid urbanization has led to deteriorating roads, inadequate drainage, and poor street-lighting.

The subproject, under the **Resilient Urban and Territorial Development Project (RUTDP)**, aims to:

- Rehabilitate and replace **bituminous carpeting (BC) roads** and **RCC pavements**.
- Construct/rehabilitate **RCC drains** with allied works (footpaths, street lighting).
- Enhance urban infrastructure resilience while ensuring social and environmental safeguards.

Study objectives:

- Establish baseline environmental & social conditions.
- Assess potential impacts during construction and operation.
- Prepare an ESMP for mitigation, enhancement, and monitoring.

2. Subproject Description

Location: Wards 6, 7, and 9 of Parbatipur Pourashava.

Key activities:

1. Rehabilitation of ~2,100 m BC pavement with drains, footpaths, and street lights (Kalibari More–Mosher Potty–Namapara–Purabita).
2. Rehabilitation of ~3,087 m BC road with lighting and allied works (Sundoripara Bypass–Bitteepara plus link roads).

Current situation:

- Roads are damaged with potholes, narrow widths, and undulations.
- Existing drains are either absent, narrow, or silted up, leading to waterlogging.
- Lack of streetlights reduces nighttime safety.

Need for the subproject:

- Improve traffic movement and business connectivity.
- Reduce drainage congestion and urban flooding.
- Enhance community safety, livelihood, and overall urban services.

Category:

- **Orange (Moderate risk)** under ECR 2023.
- **Moderate risk** under World Bank ESF categorization.

3. Baseline Environmental and Social Conditions

Physical Environment

- **Geology/Soils:** Barind clay, floodplain alluvium; mostly flat terrain (20–26m PWD elevation).
- **Seismic Zone:** Zone-II (moderate risk).
- **Climate:** Warm, temperate; annual rainfall ~2,000 mm (94% during May–Oct).
- **Hydrology:** Tilai River and ponds nearby; groundwater available but contaminated with arsenic/iron.
- **Drainage:** Inadequate; frequent waterlogging in monsoon.

- **Air & Noise:** Generally tolerable, but dust from vehicles and noise from traffic prevalent.

Biotic Environment
- Flora: Mango, jackfruit, coconut, rain tree, mahogany, bamboo, etc.
- Fauna: Common birds, amphibians, reptiles, mongoose (IUCN vulnerable).
- Seasonal wetlands support aquatic species.

Socio-economic & Cultural Environment
- Mixed land use: Residential, commercial, educational, religious institutions.
- Beneficiaries: ~3,400 people directly (Wards 6, 7, 9), many more indirectly.
- Literacy rate ~64.5% (higher than national average).
- No indigenous or tribal communities.
- Land acquisition not required, though some roadside sheds and walls will be voluntarily removed (with agreements signed).
- No cultural/heritage sites in the project influence area.

Photographs 3.1: Existing Drain Condition of the Subproject Site

4. Environmental & Social Impacts

Positive Impacts
- Improved transport and drainage networks.
- Reduced waterlogging and traffic congestion.
- Safer mobility due to streetlights.
- Enhanced business, commerce, and property values.
- Local employment and livelihood opportunities.

Potential Negative Impacts (mainly during construction)
- **Physical Environment:** Dust, noise, vibration, temporary water quality degradation, soil disturbance.
- **Biological Environment:** Loss of ~25 roadside trees.
- **Social Environment:** Temporary traffic congestion, disposal of construction waste, risk of accidents, labor influx impacts, and OHS concerns.
- **Community Resources:** Minor damages to nearby infrastructure and increased pressure on local services.

Risk Rating: Mostly **low to moderate**, manageable with mitigation.

5. Mitigation & Enhancement Measures

- **Air/Dust:** Water spraying, covering stockpiles, maintaining vehicles/equipment.
- **Noise:** Use of mufflers, restrict work to daytime, monitoring in sensitive areas.
- **Water Quality:** Prevent discharge of construction waste into drains/rivers; proper waste disposal.
- **Tree Felling:** Planting of **115 compensatory trees** (fruit, medicinal, ornamental).
- **Traffic Management:** Section-wise work, traffic signs, awareness for road users.
- **Solid Waste:** Designated disposal at municipal dumping sites.
- **OHS Measures:** PPE for workers, first-aid, awareness training, accident compensation.
- **Community Safety:** Consultation, grievance redress, careful relocation of utilities.
- **Labor Influx:** Local hiring prioritized, code of conduct for workers, control on waste and health issues.

6. Environmental & Social Management Plan (ESMP)

- **Institutional Arrangements:** PIU at Pourashava, PMU at LGED, DSM consultants, and contractor's EHS team.
- **Capacity Building:** Training for staff, contractors, and workers.
- **Emergency & Disaster Management:** Response plan for accidents, fire, floods, earthquakes.
- **Monitoring Plan:**
    - Visual inspection during construction.
    - Analytical monitoring (air, water, noise).
    - Regular reporting to LGED and World Bank.
- **Budget:** Environmental & social enhancement measures included in BOQ.
- **Grievance Redress Mechanism (GRM):** Multi-tier system (community → Pourashava GRC → PMU).

7. Conclusion & Recommendations

The subproject will significantly improve infrastructure in Parbatipur Pourashava, benefiting thousands through better mobility, reduced flooding, and safer public spaces. Environmental and social risks are **moderate, site-specific, and temporary**, manageable through the ESMP.

Key recommendations:

- Strict enforcement of ESMP during construction.
- Active stakeholder engagement and information disclosure.
- Timely compensatory tree plantation and monitoring.
- Strong occupational health & safety measures.
- Effective grievance redress and community liaison.

With proper implementation of mitigation and monitoring, the project will deliver sustainable urban resilience and socio-economic benefits for Parbatipur residents.