



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/SON/ 2024-25/W-01

at

Sonargaon Pourashava, Narayanganj



Resilient Urban and Territorial Development Project (RUTDP)

Sub-Project Preparation Team, RUTDP, LGED

SUMMARY OF ENVIRONMENTAL AND SOCIAL ASSESSMENT (ESA) REPORT

Package No: RUTDP/SON/2024-25/W-01

Location: Sonargaon Pourashava, Narayanganj

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1. Introduction

Sonargaon Pourashava, established in 2001, is a “B” grade municipality covering 9.51 sq. km with a population of about 45,122. The subproject under the **Resilient Urban and Territorial Development Project (RUTDP)** is focused on the rehabilitation and replacement of **RCC pavements, bituminous carpeting (BC) roads, and RCC drains with allied works including footpaths and street lighting**

The objectives of the ESA are:

- To assess existing environmental and social conditions and establish a baseline.
- To identify positive and negative impacts during construction and operation.
- To prepare an Environmental and Social Management Plan (ESMP) for mitigation and enhancement

The methodology included desktop studies, field surveys, interviews with stakeholders, and data analysis.

2. Subproject Description

2.1 Scope of Works

The subproject focuses on **2677 m of road development with drains and street lighting at Uddobgonj–Darpat Eidgah via Barigandha Road (Ward 4, 5, 6, 8)**

Key works include:

- Road improvement (RCC & BC).
- New RCC drains with proper outfall to **Pankhiraj Khal → Meghna River**.
- Street lighting for traffic and pedestrian safety.

2.2 Rationale

- Existing roads are narrow (3.5–4m), damaged, and potholed.
- Current drains are inadequate, silted, and often cause waterlogging during monsoon.
- Lack of streetlights reduces safety at night.

Improvement will:

- Enhance connectivity and trade.
- Reduce drainage congestion and waterlogging.
- Provide safer mobility and social benefits

2.3 Beneficiaries

- About **12,000 residents** (direct beneficiaries) from wards 4, 5, 6, and 8.
- Wider community indirectly benefits through better transport, commerce, and governance capacity.

2.4 Category and Risk Classification

- **ECR 2023:** Orange (road & drain), Green (streetlight).

3. Baseline Environmental and Social Conditions

3.1 Physical Environment

- **Topography & Soils:** Low and medium high land; non-calcareous dark grey floodplain soils; earthquake Zone II.
- **Climate:** Tropical monsoon; avg. rainfall 2376 mm/year; temp. 12.7–36°C; humidity ~65.8%.
- **Hydrology:** Meghna River (2.5 km east); khals and ponds provide water but shallow aquifers contaminated by arsenic and iron.

- **Flooding & Drainage:** Low-lying east area flood-prone; poor drainage causes seasonal waterlogging.
- **Air & Noise:** Air relatively clean, but vehicular dust and burning wastes degrade quality. Noise mainly from vehicles, within tolerable limits.

3.2 Biotic Environment

- Flora: Homestead vegetation (mango, coconut, jackfruit, rain tree, neem, mahogany).
- Fauna: Common birds, amphibians, reptiles, freshwater fish; vulnerable mongoose species observed.

3.3 Socio-economic Environment

- Land use: Dense residential + commercial mix.
- Infrastructure: Roads, shops, schools, hospitals, religious centers.
- Education: Literacy ~58.6% (lower than national average).
- Livelihoods: Small businesses, services, transport.
- No ethnic minorities (ESS7 not triggered).
- **Cultural heritage:** Sonargaon Museum and Panam City nearby.

3.4 Current Situation



Photographs: Current Situation of the Outfall at Subproject Site

4. Environmental & Social Impacts and Mitigation

4.1 Construction Phase

Negative impacts:

- Dust, noise, vibration from excavation and machinery.
- Tree felling (≈50 trees) and vegetation clearance.
- Pollution from construction wastes, oils, and fuels.
- Traffic congestion due to road works.
- Occupational health & safety (OHS) risks: dehydration, accidents, exposure to dust.
- Social concerns from labor influx (crime, GBV, diseases).

Mitigation measures:

- Water sprinkling and covered transport to control dust.
- Noise abatement measures and schedule works in daytime.
- Compensatory plantation (250 trees, fenced and monitored)
- Proper solid waste and hazardous material management.
- Provision of PPE, first aid, sanitation, and awareness for workers.
- Traffic management plan with section-wise work and signage.
- Community engagement, GRM activation, and monitoring of labor influx issues.

4.2 Operation Phase

Positive impacts:

- Improved transport efficiency and business opportunities.
- Reduced flooding and waterlogging.
- Safer mobility with streetlights.
- Better urbanization and governance capacity.

Potential issues:

- Increased noise/air pollution from higher traffic.
- Maintenance needs for drains, streetlights, and roads.
- Solid waste disposal challenges.

Mitigation:

- Regular road and drain maintenance.
- Monitoring of air, water, and noise quality.
- Strengthened waste management system.

5. Environmental and Social Management Plan (ESMP)

The ESMP outlines:

- **Institutional arrangement:** LGED, Pourashava, PMU, DSM, and contractors share responsibilities.
- **Capacity building:** Training for officials and contractors on ESMP compliance.
- **Monitoring:** Visual inspections and analytical monitoring of dust, noise, and water quality.
- **Tree plantation and landscaping** for environmental enhancement.
- **Emergency response and disaster management** integrated.
- **Budget allocation** for environmental and social safeguards in BOQ.
- **Grievance Redress Mechanism (GRM):** Accessible to all stakeholders.

6. Public Consultation

- Community members and Pourashava officials participated.
- Concerns: drainage congestion, road safety, traffic disturbance, labor behavior.
- Suggestions: ensure timely completion, safety measures, tree plantation, and local employment.
- Consensus: strong local support, with people even volunteering to remove structures obstructing works.

7. Conclusions and Recommendations

- The subproject has **moderate environmental and social risks**, mainly site-specific and temporary.
- With proper mitigation (dust/noise control, tree plantation, OHS measures, waste management), impacts are manageable.
- Significant **positive impacts** expected: improved connectivity, reduced flooding, enhanced safety, local employment, and economic growth.
- Recommended: strict adherence to ESMP, active GRM, community involvement, and regular monitoring.