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/DAD/ 2024-25/W-01
at
Daudkandi Pourashava, Cumilla

Resilient Urban and Territorial Development Project (RUTDP)

Sub-Project Preparation Team, RUTDP, LGED

ENVIRONMENTAL AND SOCIAL ASSESSMENT (ESA) SUMMARY
Package No: RUTDP/DAD/2024-25/W-01 – Daudkandi Pourashava, Cumilla

---

1. Introduction

Daudkandi Pourashava, established in 1995, covers 12.17 sq. km with a population of about 46,256 (BBS 2011). Rapid urbanization has created pressure on its substandard road network, causing congestion, poor drainage, and reduced mobility. Under the Resilient Urban and Territorial Development Project (RUTDP), the proposed subproject aims to **rehabilitate and upgrade BC (Bituminous Carpeting) roads with allied works, drains, and street lighting** to strengthen infrastructure and community resilience.

The ESA study was carried out through **desktop reviews, field investigations, data collection, consultations with stakeholders, and analysis** of environmental and social conditions. The purpose was to establish a baseline, identify impacts, and propose mitigation and management plans.

2. Subproject Description

Location & Scope

The subproject is situated in Wards 1 and 2 of Daudkandi Pourashava. It involves:

- **Activity 1:** Construction of ~1,115 m BC road at Baragaon (North Sotanandi House of Samsul Hoque to Krishnapur Khal).
- **Activity 2:** Rehabilitation of ~1,200 m BC road at Dowlatpur (Azizia Market to Dowlatpur Primary School via Krishnapur).
- **Allied works:** RCC drains, footpaths, streetlights, site office, labor sheds, relocation of electric poles, and tree plantation.

Current Issues & Justification

- Roads are **damaged, narrow (2.2–3.5 m), and congested**, leading to unsafe, slow transport.
- Drains are inadequate, causing **waterlogging and sanitation hazards**.
- Project aligns with **Pourashava's Capital Investment Plan (CIP)** and responds to strong local demand.

Photographs: Existing Road Condition at Dowlatpur starting from Azizia Market to Dowlatpur Primary School via Krishnapur

Beneficiaries: Around **6,500 residents directly**, with many others indirectly benefitting through improved connectivity, reduced congestion, and enhanced business opportunities.

Category: Orange (ECR 2023) and **Moderate Risk** (World Bank ESF).

3. Baseline Environmental and Social Conditions

Physical Environment

- **Soil:** Non-calcareous grey floodplain soils, moderately fertile.
- **Geology:** Lies in earthquake Zone II (medium risk).
- **Climate:** Tropical monsoon, warm/humid summers (max 32°C), cool winters (12–15°C).
- **Hydrology:** Nearby Gomoti & Meghna rivers; groundwater shallow (5–7.6m), arsenic contamination noted.
- **Flooding:** Normal flood zone, with periodic flooding every 2–5 years.
- **Air & Noise:** Dust from roads and emissions from old vehicles; noise mainly from traffic but within tolerable limits.
- **Waste Management:** Poor system; indiscriminate dumping blocks drains.

Biotic Environment

- **Flora/Fauna:** Moderate vegetation cover; mango, jackfruit, rain tree, bamboo, etc. Fauna includes birds, fish, amphibians, reptiles; mongoose (IUCN vulnerable species) observed.
- **Tree Impact:** ~60 roadside trees will be removed.

Socio-Economic & Cultural Environment

- **Population:** Mixed occupations (business, trades, agriculture, private/government jobs).
- **Education:** Literacy ~57% (below national average).
- **Land:** Mostly municipal ownership, no land acquisition needed. Some semi-pucca/tin structures may be voluntarily removed.
- **Cultural Sites:** None within project area.
- **Beneficiaries:** Local businesses, residents, and road users.

4. Environmental and Social Impacts

Positive Impacts

- Improved **mobility, safety, and business opportunities**.
- Reduced **waterlogging and drainage congestion**.
- Direct and indirect **employment generation**.
- Better **urban governance and resilience**.

Negative/Anticipated Impacts

Construction Phase

- Dust, noise, vibration from machinery.
- Temporary water quality deterioration from improper waste disposal.
- Tree felling (60 trees).
- Risk to occupational health and safety (OHS).
- Traffic disruption and congestion.
- Potential labor influx impacts (crime, GBV, disease transmission).

Operation Phase

- Noise and emissions from increased traffic.
- Solid waste pollution if not managed.
- Drainage performance dependent on maintenance.

5. Mitigation and Enhancement Measures

Environmental Measures

- **Dust control:** Water spraying, covered transport, stockpile management.
- **Noise control:** Equipment with mufflers, restricted work hours.
- **Tree Compensation:** Plantation of 150 local species (mango, jam, rain tree, neem, arjun, etc.) with bamboo fencing and monitoring.
- **Waste Management:** Designated dumping at Lalpur Gomoti Bridge site.
- **Water Quality:** Avoid dumping in canals/ponds, provide proper sanitation at labor camps.

Social Measures

- **Resettlement:** No land acquisition; agreements signed for voluntary removal of small structures.
- **Labor Management:** Local hiring prioritized; monitoring to avoid social conflicts.
- **Community Engagement:** Continuous consultation, grievance redress mechanism (GRM) in place.
- **Traffic Safety:** Section-wise construction, signage, diversions.
- **OHS:** PPE use, first aid facilities, proper sheds, accident compensation, emergency preparedness.

6. Environmental and Social Management Plan (ESMP)

- **Institutional Setup:** LGED PIU with DSM consultants, monitored by PMU and World Bank.
- **Capacity Building:** Training for contractors, workers, and Pourashava staff.
- **Monitoring:** Regular observation and analytical tests (air, water, noise).
- **Costing:** ESMP costs included in BOQ.
- **Grievance Redress Mechanism:** Multi-level GRC at site, Pourashava, and PMU levels.

7. Public Consultation

Meetings and FGDs with local communities, Pourashava officials, and consultants revealed strong **community support**.

- Concerns: traffic congestion, safety, dust, waste disposal.
- Recommendations: section-wise work, local hiring, tree plantation, traffic management.

8. Conclusion and Recommendations

- The project is **technically feasible and socially acceptable**.
- Impacts are **moderate, localized, and manageable** through proper mitigation.
- Key recommendations:
    - Implement ESMP and monitoring strictly.
    - Ensure effective OHS and community health measures.
    - Prioritize environmental enhancements like tree plantation and drainage improvement.
    - Maintain continuous public engagement and GRM.

Overall, the **Daudkandi Pourashava road and drainage improvement project** will significantly enhance **transportation, drainage, and socio-economic conditions**, while negative impacts remain **temporary, limited, and controllable**.