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/GOD/ 2024-25/W-01
at
Godagari Pourashava, Rajshahi

Resilient Urban and Territorial Development Project (RUTDP)

Design, Supervision, and Management (DSM) Consultancy Services

Eptisa Servicios de Ingenieria, S.L (Eptisa), Madrid, Spain

Joint Venture with

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Dev Consultants Limited (DEVCON), Bangladesh;
Design, Planning & Management Consultants Ltd. (DPM), Bangladesh

SUMMARY OF ESA REPORT
Resilient Urban and Territorial Development Project (RUTDP)
Package No: RUTDP/GOD/2024-25/W-01 at Godagari Pourashava, Godagari

1. Subproject Overview

Location & Scope:
Godagari Pourashava, a "B"-grade municipality in Rajshahi District (established in 1995), covers about **14.27 sq km** with a population of **48,629 people (BBS 2022)**. The subproject, implemented under RUTDP, targets Wards 6 – 9 and includes:

- **Rehabilitation & reconstruction** of about **4.98 km** of Bituminous Carpeting (BC) roads;
- **RCC drains** with footpaths and **street lighting**;
- **Construction of a 2-vent (3.5 m × 6.0 m) box culvert** at Ch 0+927 m.

Objectives of ESA:

- Assess baseline environmental & social (ES) conditions;
- Identify potential construction / operation-phase impacts;
- Develop an **Environmental & Social Management Plan (ESMP)** with mitigation & monitoring frameworks.

Study Methodology: Combination of desktop review, field investigation, stakeholder consultation (FGDs, interviews), and data analysis for baseline profiling and ES impact evaluation.

The present situation of the subproject area:

2. Existing Environment & Baseline Findings

2.1 Physical Setting

- **Geology & Soil:** Alluvial deposits of the Ganges floodplain with sandy- to clay-loam texture; fertile yet erosion-prone; moderately well drained.

- **Topography:** Gently sloping Barind Tract terrain, largely flood-free but low-lying pockets suffer temporary monsoon waterlogging.
- **Seismic Zone:** Zone III (Moderate).

2.2 Climate & Meteorology
- **Type:** Warm temperate.
- **Mean annual temperature:** 25.4 °C; **annual rainfall:** ~1588 mm.
- **Hottest month:** May (29.2 °C); **coolest:** January (17.8 °C).
- **Peak rainfall:** June – September (monsoon).

2.3 Hydrology & Drainage
- **Surface water:** Padma & Mahananda Rivers (flow reduced, polluted by urban runoff).
- **Groundwater:** Shallow alluvial aquifer (7.6–11.3 m bgl); arsenic, iron & manganese contamination risks noted.
- **Flooding:** Generally, "normal / no-flood" zone but suffers localized drainage congestion due to narrow, silted drains and poor outfalls.

2.4 Air, Noise & Waste
- Air quality = generally clean; localized dust from unpaved roads & vehicles.
- Noise from mixed traffic and machinery within tolerable limits.
- Solid waste ≈ 0.25 kg/person/day (~66 t/day); no permanent landfill—temporary disposal at Mohishal Bari R&H site.

2.5 Biotic Environment
- **Flora:** Sal, Neem, Siris, Tamarind, Mango, Jamun, plus exotics (Eucalyptus, Acacia).
- **Fauna:** Bengal fox, Indian hare, common myna, black drongo, snakes & lizards—typical of Barind Tract ecosystem.

2.6 Socio-economic Profile
- **Beneficiaries:** ~22 000 people directly.
- **Land use:** Densely built residential–commercial mix.
- **Literacy:** 81.2 % (higher than national 74.7 %).
- **Livelihoods:** Small business, agriculture, service & day-labor.
- **Tribal / Indigenous Peoples:** None present → ESS7 not triggered.
- **Land acquisition:** None required—works within municipal ROW.

3. Anticipated Impacts & Risk Categorization

3.1 Overall Classification

Regulation	Category	Risk Level
ECR 2023	*Orange*	—
World Bank ESF	*Moderate Risk*	—

Thus, a **detailed ESA with ESMP** (not a full ESIA) satisfies appraisal requirements.

3.2 Potential Negative Impacts
Construction Phase:
- Dust & air pollution from excavation, earth & asphalt works;
- Noise / vibration from compaction & machinery;
- Waste / oil spills affecting soil & water;
- Tree felling (~5 trees);
- Labor influx causing pressure on local resources and possible GBV risks;
- Temporary traffic disruption, safety hazards.

Operation Phase:

- Increased vehicular emission & noise;
- Drain clogging from solid waste;
- Minor accidents if traffic signage and streetlights not maintained.

3.3 Positive Impacts

- Better connectivity & reduced travel time;
- Improved drainage & reduced waterlogging;
- Employment for local labor during construction & maintenance;
- Nighttime safety via street lighting;
- Enhanced urban livability & economic growth.

4. Mitigation & Enhancement Measures

4.1 Environmental Controls

Issue	Key Mitigation
Dust & Air Pollution	Regular water spraying, covered trucks, maintain moist soil during handling, proper vehicle maintenance.
Noise & Vibration	Fit mufflers, schedule work daytime only, provide ear protection for workers.
Water Pollution	No waste dumping into rivers/drains; designated disposal at Mohishal Bari dump site.
Tree Felling & Compensation	Fell ~5 trees → replant ≥ 60 local species (Mango, Neem, Rain Tree, Jarul etc.) with bamboo fencing and monitoring.
Solid Waste & Spills	Storage on raised platforms, segregate hazardous wastes, regular collection & transport to dump yard.

4.2 Occupational Health & Safety (OHS)

- Provide PPE (helmets, gloves, boots, masks, reflective jackets).
- Ensure first-aid kits, safe machinery operation, drinking water & sanitary facilities.
- Compensation scheme for accidents.

4.3 Community Health & Safety

- Place signboards, barriers & traffic diversions; inform local residents in advance.
- Employ flag persons at busy crossings.
- Conduct awareness sessions on GBV, HIV/AIDS for workers and community.

4.4 Labor Influx Management

- Prefer local labor to minimize influx.
- Maintain labor camp hygiene & waste management.
- Strict monitoring of worker behavior; coordinate with local administration.

5. Environmental and Social Management Plan (ESMP)

Institutional Arrangement:

- **PMU-RUTDP (LGED)** – overall oversight & reporting to World Bank.
- **DSM Consultants** – technical supervision & ES monitoring.
- **PIU at Pourashava** – day-to-day implementation & community liaison.
- **Contractor** – ESMP execution on-site through dedicated EHS officer.

Key Components:

1. **Access to Information** – posting project details on notice boards and LGED website.
2. **Capacity Building** – training on ESF requirements, OHS & GRM for PIU and contractors.
3. **Emergency Response & Disaster Management** – preparedness plan for accidents, flood & fire.

4. **Environmental & Social Monitoring Plan** – visual & analytical monitoring of air, noise, water, soil during construction and operation.
5. **Cost Provision** – BOQ includes budget for tree plantation, safety gear, monitoring and training.
6. **Grievance Redress Mechanism (GRM)** – three-tier GRC at Pourashava, PIU, PMU levels for community complaints; time-bound resolution system.

6. Stakeholder Consultation & Participation

Focus Group Discussions (FGDs):

- Participants included local residents, shopkeepers, rickshaw drivers, and women.
- **Key issues raised:** drainage clogging, dust pollution, traffic safety, employment for locals.
- **Community feedback:** overwhelmingly positive — strong support for the project; requests for timely execution and street lighting.
- Recommendations incorporated into the ESMP (e.g., tree plantation, dust suppression, employment priority for local youth).

7. Conclusions & Recommendations

- The proposed **BC road and RCC drain with box culvert and streetlights** in Godagari Pourashava will bring **significant social and economic benefits**—improved mobility, reduced waterlogging, enhanced safety and livelihood opportunities.
- All anticipated environmental impacts are **site-specific, temporary and manageable** through proper mitigation and monitoring.
- The subproject is therefore **environmentally sound and socially beneficial**, provided the contractor strictly implements the ESMP, OHS measures and community communication plan.
- **Continuous monitoring, capacity building and stakeholder engagement** are essential to sustain compliance with **World Bank ESS and ECR 2023** requirements.