



**GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH**

**Local Government Engineering Department (LGED)**

**Local Government Division**

**Ministry of Local Government, Rural Development and Cooperatives**

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## **ENVIRONMENTAL AND SOCIAL ASSESSMENT (ESA) REPORT FOR**

**Package No: RUTDP/NOA/ 2024-25/W-01**

**at**

**Noapara Pourashava, Jashore**



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**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**

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



## ENVIRONMENTAL AND SOCIAL ASSESSMENT (ESA) SUMMARY

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

Location: Noapara Pourashava, Jashore

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### 1. Subproject Overview

**Noapara Pourashava**, located in Abhaynagar Upazila of **Jashore District**, is an “A” grade municipality established in 1996. The Pourashava covers **15.12 sq. km** with a population of **96,058** (BBS, 2022). The proposed subproject under RUTDP aims to **rehabilitate and reconstruct approximately 8.03 km of Bituminous Carpeting (BC) roads** and **6.14 km of RCC drains** with allied works, including **footpaths and street lighting** in Wards **1, 2, 3, and 4**.

#### Major Components:

- Rehabilitation of damaged BC roads and construction of new RCC drains.
- Installation of streetlights for improved night-time safety.
- Drainage improvement to minimize waterlogging and ensure smooth stormwater discharge into **Bhairab River**.

This subproject will directly benefit **53,375 residents** and indirectly improve the overall communication, trade, and environmental condition of Noapara Pourashava.

#### Present Situation:



## 2. Environmental Baseline Conditions

### Geology, Topography, and Soils

Noapara lies in the **Gangetic Alluvial Plain** with fertile loamy to clay-loam soils. The area is low-lying (~7 m MSL) and highly productive but prone to temporary flooding and waterlogging. The Pourashava lies in **Seismic Zone III** (BNBC, 2006) — moderate earthquake risk.

### Climate

The area experiences a **tropical monsoon climate** with annual rainfall of **1,500–1,800 mm**. The average maximum summer temperature is **below 35°C**; April is the warmest month. Rainfall peaks between **May and September**.

### Hydrology

The **Bhairab River** is the main surface water body. Numerous canals and ponds serve as secondary drainage. Groundwater levels fluctuate seasonally (0–5.3 m depth), with iron and arsenic contamination reported. Drainage inefficiency often causes **localized waterlogging** in monsoon seasons.

### Air and Noise Quality

Air quality is generally good but affected by vehicle emissions and open waste burning. Noise mainly comes from traffic and construction machinery but remains within tolerable limits.

### Solid Waste Management

Waste is collected irregularly and dumped openly at Rajghat without proper sanitary landfill systems. Lack of segregation and treatment facilities poses environmental and public health risks.

### Flora and Fauna

Dominant trees: **Mango, Jackfruit, Coconut, Rain tree, Mahogany, Neem**, etc.

Common fauna: **House Crow, Myna, Magpie-Robin, Kingfisher, Squirrel, Shrew, Tilapia, Rohu, Catla**, etc.

Tree loss is minimal (about 5 trees), to be compensated by planting **50 trees** with proper fencing and monitoring.

### Socio-economic Profile

- **Population (Wards 1–4):** ~53,000
- **Literacy rate:** 63.7%
- **Main occupations:** small business, agriculture, day labor, transport, and industrial work.
- **Land acquisition:** Not required; works occur within existing ROW.
- **Ethnic minority:** None found; no Indigenous Peoples (ESS7).
- **Cultural heritage:** No archaeological or historical sites within influence area.

## 3. Key Environmental and Social Impacts

### Construction Phase Impacts

Impact Area	Description	Significance	Mitigation Measures
<b>Air &amp; Dust</b>	Dust and emissions from equipment and transport	Moderate	Regular water spraying, cover stockpiles, maintain vehicles
<b>Noise &amp; Vibration</b>	From heavy machinery	Moderate	Schedule noisy work during daytime, fit silencers
<b>Water Quality</b>	Risk of pollution from waste & runoff	Low	Proper waste disposal, prevent spillage into Bhairab River
<b>Soil &amp; Waste</b>	Contamination from oil/fuel	Low	Store fuel on raised platforms; dispose waste at Rajghat dump
<b>Tree Cutting</b>	About 5 trees	Low	Compensatory plantation (50 nos.)

Impact Area	Description	Significance	Mitigation Measures
<b>Occupational Health &amp; Safety</b>	Risk of accidents, sun exposure, heat stress	Moderate	PPE, first-aid kits, training, shade/rest facilities
<b>Traffic Congestion</b>	Road closures during works	Moderate	Section-wise work, signage, diversion plan
<b>Community Safety</b>	Dust, noise, temporary access issues	Moderate	Awareness, barricades, consultation
<b>Labor Influx</b>	Social stress, GBV, communicable diseases	Moderate	Code of Conduct, local hiring, worker camp monitoring

#### Operation Phase Impacts

- Improved drainage and reduced flooding.
- Enhanced road connectivity and urban mobility.
- Night-time safety due to streetlights.
- Minor noise and air emissions from increased traffic.

Overall, all identified impacts are **localized, temporary, and manageable** through the Environmental and Social Management Plan (ESMP).

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#### 4. Environmental and Social Management Plan (ESMP)

##### Mitigation Measures

- Dust control (water spraying, covering of trucks, site cleaning).
- Noise mitigation (restrict work hours, mufflers on machines).
- Proper waste management and disposal at **Rajghat dumping site**.
- Safe handling of hazardous materials (oil, grease, bitumen).
- PPE and safety gear for workers; emergency response plan.
- Tree plantation with bamboo fencing and maintenance for one year.

##### Institutional Arrangement

- **LGED (PMU)**: Overall coordination and compliance.
- **DSM Consultants**: Environmental & Social monitoring and reporting.
- **PIU/Pourashava**: On-site supervision and community liaison.
- **Contractor**: ESMP implementation, record keeping, and training.

##### Grievance Redress Mechanism (GRM)

- Multi-tier system at community and project levels.
- Grievances recorded and resolved within 15–30 days.
- Escalation to PMU/World Bank for unresolved cases.

##### Monitoring

- Regular field inspections during construction.
- Environmental parameters (air, water, noise) monitored per schedule.
- Compliance reports to be submitted quarterly.

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#### 5. Positive Impacts and Benefits

- **Improved urban mobility** and reduced travel time.
  - **Reduction of waterlogging** and better stormwater management.
  - **Enhanced business activities** and urban services.
  - **Employment generation** during construction.
  - **Improved safety and aesthetics** through streetlights and tree plantation.
  - **No land acquisition or resettlement**, ensuring social acceptability.
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## 6. Subproject Categorization

Criteria	Category
ECR 2023	Orange Category (Moderate Environmental Impact)

**World Bank ESF Risk Rating Moderate Risk**

**Street Lighting Component** Green Category (Low Risk)

Hence, **detailed ESIA is not required**. The ESA with ESMP and environmental budget sufficiently meets the requirements.

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## 7. Conclusion and Recommendations

The proposed subproject at Noapara Pourashava is **environmentally feasible and socially acceptable**.

All adverse impacts are **minor, site-specific, and reversible** with proper mitigation.

### Key Recommendations include:

1. Strict implementation of ESMP during construction.
2. Regular environmental and safety monitoring.
3. Community consultation and grievance redress to continue throughout project lifecycle.
4. Ensure tree plantation survival and maintenance post-construction.
5. Strengthen Pourashava waste management and sanitation practices.

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### Overall Summary:

The **RUTDP/NOA/2024-25/W-01** subproject will significantly enhance **urban resilience, mobility, drainage, and livability** in Noapara Pourashava while ensuring compliance with **World Bank Environmental and Social Framework (ESF)** and **ECR 2023**. The subproject's **moderate risk** profile is well within manageable limits through effective implementation of the ESMP and continuous stakeholder engagement.