



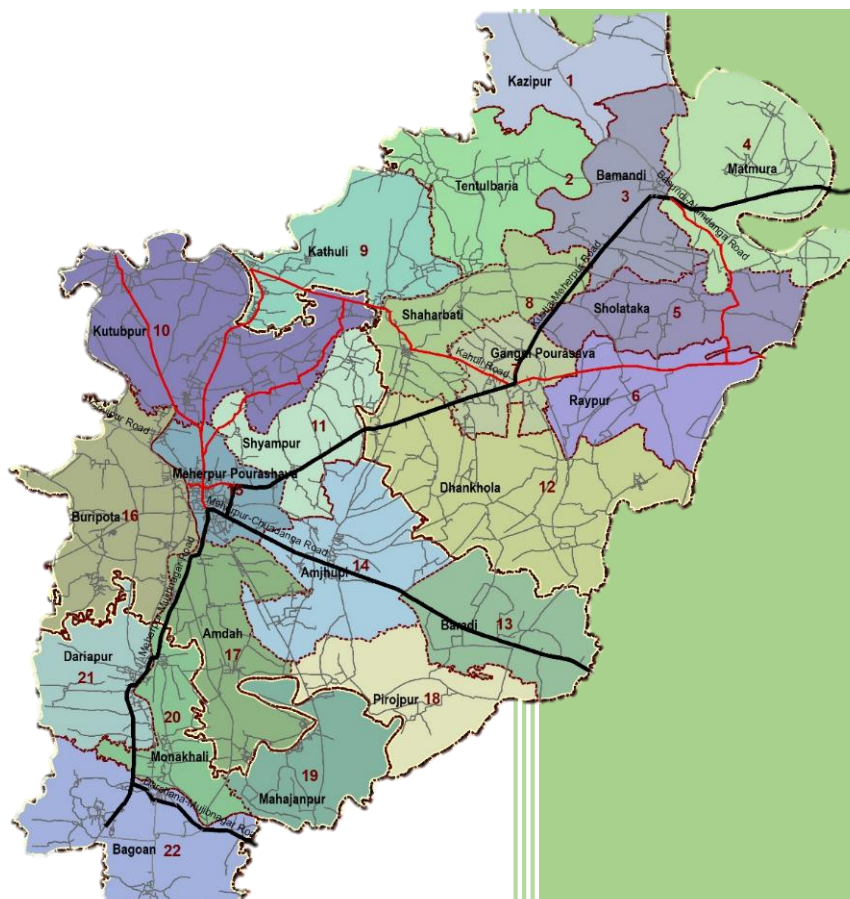
Government of the people's Republic of Bangladesh

Ministry of Housing and Public Works

Urban Development Directorate

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Preparation of the Development Plan for Meherpur Zilla
Assignment 01
Reconnaissance Report of the Project Area



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"Preparation of Development Plan for Meherpur Zilla"

Reconnaissance Report of the Project Area

Abstract

This report details the findings of a preliminary field study for the "Preparation of Development Plan for Meherpur Zilla" project, which aims to create a 20-year Transportation Master Plan for Meherpur district. The survey sought to gain a firsthand understanding of the existing transportation system, its challenges, and potential. The methodology included direct observational field visits across Meherpur Sadar, Gangni, and Mujibnagar upazilas, inspection of key transport nodes like the Meherpur main bus terminal, stakeholder consultations including discussions with local residents and Meherpur University's Registrar, and a desk review of existing documentation. Initial findings highlight a road network connecting the upazilas and neighboring districts, with significant traffic generation in Meherpur town center, agricultural markets, and along the Meherpur-Mujibnagar road. Waterway transport via the Bhairab River is limited. Critical issues identified include congestion in urban centers due to narrow roads and high mixed-traffic volume, high auto-rickshaw fares for short trips, unregulated and increasing motorcycle use posing safety risks, and a lack of speed regulation. The report also notes upcoming developments such as a new university, a planned rail line to Darshana, and a potential new port, which will significantly influence future transport demand. This reconnaissance will inform detailed data collection, including Origin-Destination and traffic volume surveys, to support the development of a sustainable and efficient transportation system.

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1. Introduction

1.1 Brief Overview of the Project

This report is the first official submission under the "Preparation of Development Plan for Meherpur Zilla" project. The overarching goal of this project, commissioned by the Urban Development Directorate (UDD), is to formulate a comprehensive, 20-year Transportation Master Plan for the Meherpur district. Meherpur, a district in the southwestern part of Bangladesh, holds a unique position in the nation's fabric. It is not only a significant contributor to the country's agriculture-based economy but is also revered as the birthplace of the first provisional Government of Bangladesh at Mujibnagar.

This project aims to optimize the use of all available transport modes, supporting the government's "Vision 2041" by creating a sustainable, safe, and efficient transportation system that will foster economic growth and improve the quality of life for the residents of Meherpur. The project will involve extensive data collection, the development of a travel demand forecasting model, and the formulation of strategic plans for the district's transportation infrastructure.

1.2 Purpose and Scope of the Reconnaissance Survey

The reconnaissance survey represents the project's mobilization phase. Its primary purpose was to gain a firsthand, on-the-ground understanding of the existing transportation system, its challenges, and its potential within the Meherpur district. The scope of this initial survey included:

- A physical inspection of the current transport infrastructure.
- Initial engagement with key local stakeholders to gather insights and concerns.
- Identification of critical locations for the detailed surveys to follow.
- A preliminary assessment of data availability and potential challenges.

2. Methodology

To achieve the objectives of the reconnaissance survey, a systematic and multi-faceted methodological approach was employed. The core activities were conducted on May 28th, 2025, and involved the following:

- 1. Direct Observational Field Visits:** The project team undertook comprehensive site visits spanning the three upazilas of Meherpur district: Meherpur Sadar, Gangni, and Mujibnagar. This involved direct observation of the existing transportation infrastructure, traffic characteristics, and land use patterns along key corridors and within significant settlements.
- 2. Inspection of Key Transport Nodes:** Specific attention was paid to critical transport nodes within the district. This included detailed observation of the operational dynamics at the Meherpur main bus terminal. Furthermore, potential locations for future railway station development were visited to assess their strategic implications for the district's connectivity.
- 3. Stakeholder Consultation and Community Interaction:**
As part of the qualitative assessment:
 - a.** Informal tea stall discussions and local market conversations were held to gather insights into daily mobility issues from local residents.
 - b.** A meeting with the Registrar of Meherpur University was conducted to understand future institutional expansion plans and their implications for transport infrastructure and connectivity needs.
 - c.** Local opinions were sought on road safety, access to public transportation, freight movement, and future prospects related to connectivity and economic growth.
- 4. Desk Review of Existing Documentation:** A desk review was conducted to understand the existing transport context of Meherpur. Relevant reports, statistical data, and planning documents from sources like LGED, BBS, and UDD were reviewed to gather background information. Additionally, existing road network maps, land use maps, and satellite imagery were examined to identify key transport corridors, growth areas, and infrastructure gaps. This review provided a foundational understanding of the area and helped guide the design of upcoming survey activities.

3. Overview of the Area

Meherpur District, the smallest in Bangladesh by area, is situated in the southwestern part of the country under the Khulna Division. Covering an area of approximately 716.08 square kilometers, it borders the Indian state of West Bengal to the west and the Bangladeshi districts of Kushtia and Chuadanga to the east. Meherpur is historically significant as the birthplace of the Provisional Government of Bangladesh, which was formed on April 17, 1971, in the village of Baidyanathtala, later renamed Mujibnagar.

3.1 Administrative Setup

Administratively, Meherpur is divided into three upazilas: Meherpur Sadar, Gangni, and Mujibnagar. The district comprises 18 unions, 199 mouzas, and 255 villages. Meherpur town, located on the banks of the Bhairab River, serves as the district headquarters.

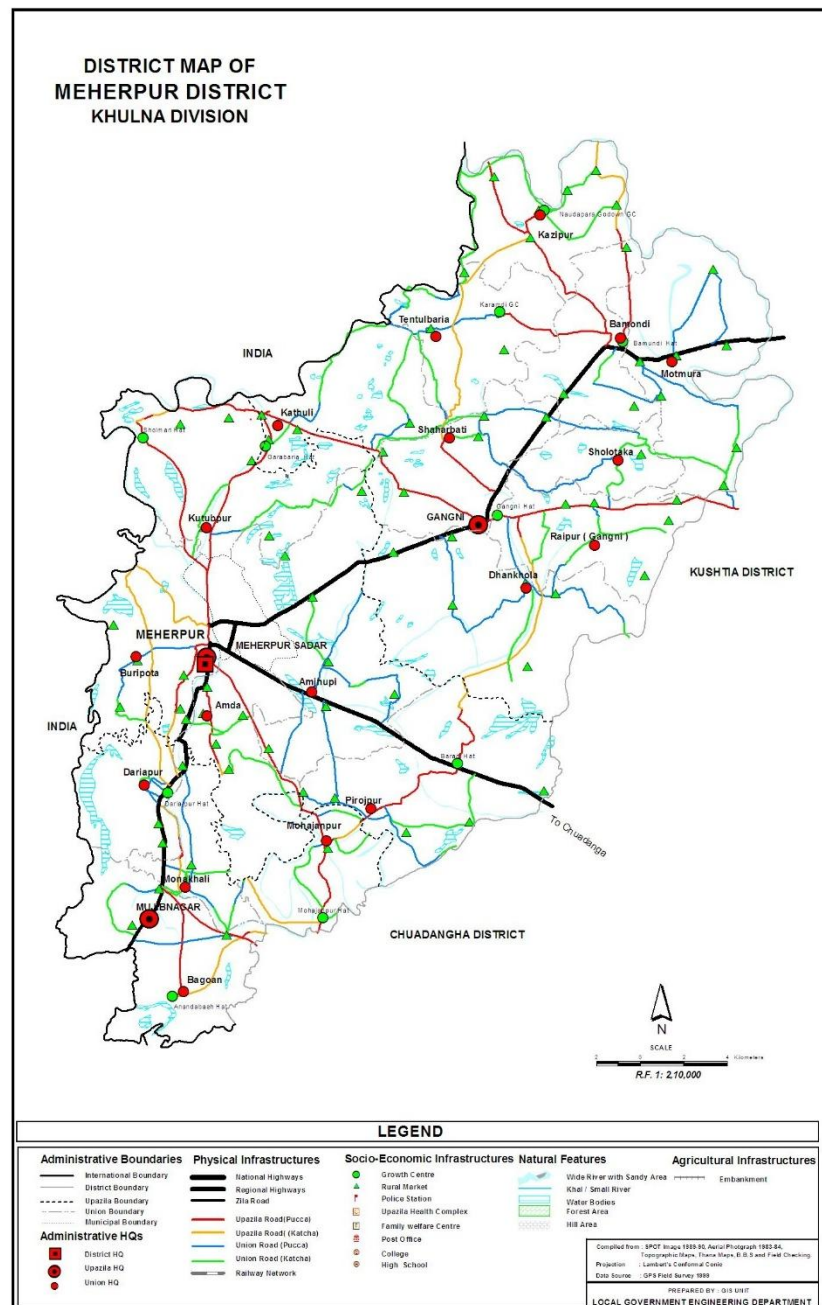


Figure 1 Map of Meherpur District

3.2 Demographic Profile

Table 1 Demographic statistics of Meherpur

Indicator	Value
Total Population (2022 Census)	705,356
Literacy Rate	68.14% (below national average of 74.80%)
Total Area	716.08 sq. km
No. of Upazilas	3
No. of Unions	18
No. of Villages	255

3.3 Economic and Infrastructure Overview

The economy of Meherpur is predominantly agrarian, with agriculture contributing to about 68.95% of income sources, followed by commerce at 13.83%. The district's transport and educational infrastructure are key areas of ongoing development. Education facilities are steadily improving, with 280 primary schools, 92 high schools, and 13 colleges. The establishment of Meherpur University in 2023 has significantly enhanced the district's higher education landscape.

3.4 Road Network Details

Meherpur district has an extensive rural road network that supports agriculture, trade, and daily mobility. The road infrastructure includes various categories such as upazila roads, union roads, and village roads (type A and B). Table 2 provides detailed statistics on the road types by surface condition and related infrastructure.

Table 2 Road length

Road Type	Earthen Length (km)	Paved Length (km)	Total Length (km)	Bridge/Culvert Length (m)
Upazila Road	2,435.35	34,337.47	36,772.82	444,092.26
Union Road	8,542.36	33,560.06	42,102.41	355,765.25
Village Road A	94,985.04	54,921.41	182,355.34	510,231.88
Village Road B	143,851.93	38,503.41	149,906.45	344,134.43
Total	249,814.67	161,322.35	411,137.03	1,654,223.81

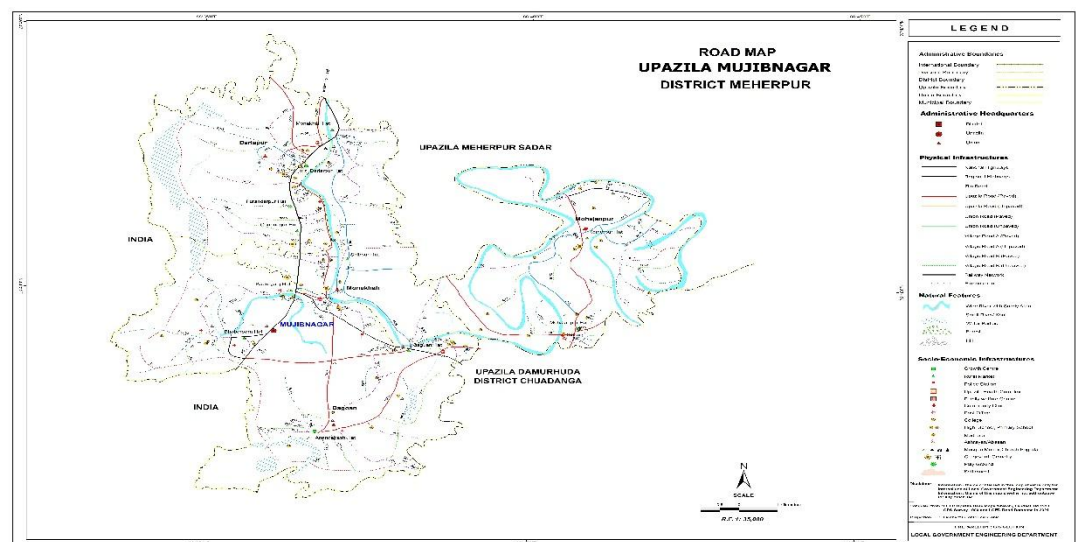
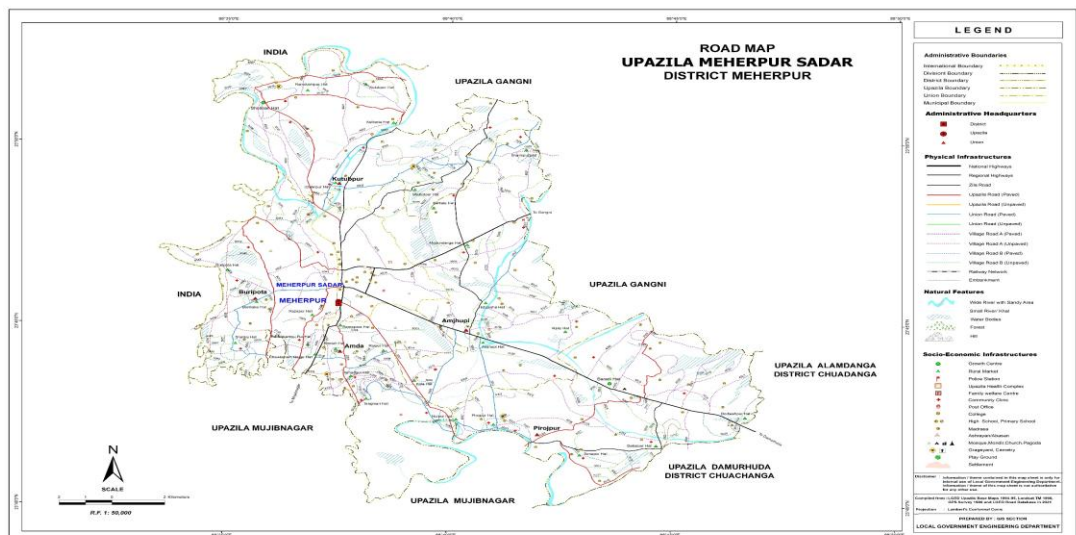
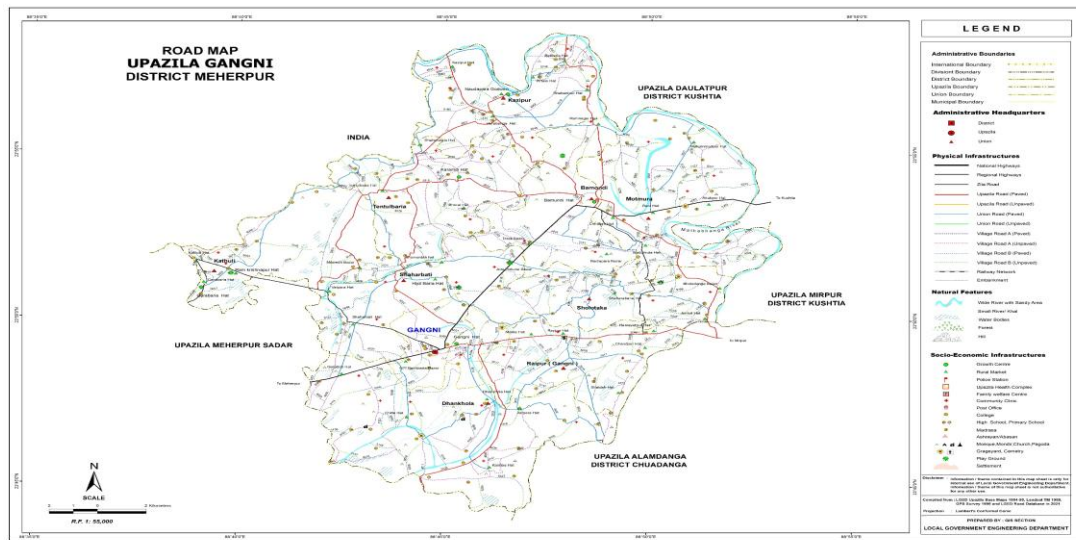


Figure 2 Upazila Wise Road Network

4. Initial Findings

4.1 Transport Network

4.1.1 Road Network

Meherpur district is served by a network of regional and local roads that ensure internal connectivity among its upazilas and link it to neighboring districts. Meherpur Sadar Upazila, the administrative and economic hub of the district, is accessible via multiple key routes. These include the Meherpur–Kushtia Road, which acts as a major regional artery; the Meherpur–Mujibnagar Road, offering direct access to Mujibnagar Upazila; and the Meherpur–Ujalpur Road, which facilitates movement toward the western rural belts. A significant regional connector road runs from Chuadanga through Amjhupi to Meherpur Sadar, strengthening the district’s accessibility from the south and supporting cross-district trade and mobility.

Gangni Upazila is mainly connected through the Meherpur–Kushtia Road, which handles both passenger and goods transport. Mujibnagar Upazila—a site of national historical importance—is connected by the Meherpur–Mujibnagar Road, supporting both administrative access and tourism-driven traffic.

4.1.2 Waterway Transport

The Bhairab River flows through the district, but its role in transportation appears limited. It is primarily used for localized transport of agricultural goods (like sand and produce) and limited passenger movement by small country boats. The navigability seems to be a major constraint, especially during the dry season. There is no evidence of organized, large-scale commercial or passenger ferry services.

4.2 Major Traffic Generators

4.2.1 Meherpur Town Center

Serving as the administrative and primary commercial hub of the district, Meherpur town sees a high concentration of daily trips. Government offices, banks, schools, hospital and markets are densely located here, drawing both commuter and freight traffic. However, the narrow internal roads, particularly near the market zone, exacerbate congestion issues. With road widths averaging less than 16 feet, the flow of mixed traffic, including rickshaws, easy-bikes, and freight vehicles, often becomes severely constrained during peak hours.

As observed during the field visit, the red-marked segment (Figure 3) represents one of the busiest urban roads. This route connects central Meherpur town with the main market area and further extends to the Mujibnagar Upazila Road, acting as a critical link for both local and through traffic. Again, this road, which connects the town and market area with surrounding villages, is



Figure 3 Busy Urban Roads Near Meherpur Town

the **only direct access road** for many local communities. Its limited width and critical positioning make it one of the most congested corridors in the district.

4.2.2 Agricultural Markets and Growth Centers

The agricultural economy drives transport demand, particularly from growth centers and haats in Meherpur Sadar and Gangni upazilas. These areas generate substantial freight and non-motorized traffic, especially during harvest and market days.

4.2.3 Meherpur-Mujibnagar Road

The Mujibnagar Liberation War Complex attracts a significant volume of tourist and visitor traffic, while trade activity from nearby Darshana and Benapole land ports contributes to the heavy flow of freight traffic along Meherpur's main highways. In addition to the visitor-driven traffic, the presence of a private stone-cutting (pathor katar) company along the Meherpur–Mujibnagar Road adds to the congestion. This facility generates heavy truck movement, which further burdens the already busy corridor.

4.3 Critical Junctions

Several key intersections within Meherpur district have been identified as major traffic bottlenecks due to high vehicular and pedestrian activity combined with a lack of proper traffic control mechanisms. The most prominent among these is the central junction in Meherpur town, particularly in the vicinity of the bus terminal and the main market area, in addition to the town center, other significant congestion-prone points include:

- Kedarganj Intersection, which serves as a critical connector between Meherpur Sadar and Mujibnagar Upazila, accommodating both local and through traffic.

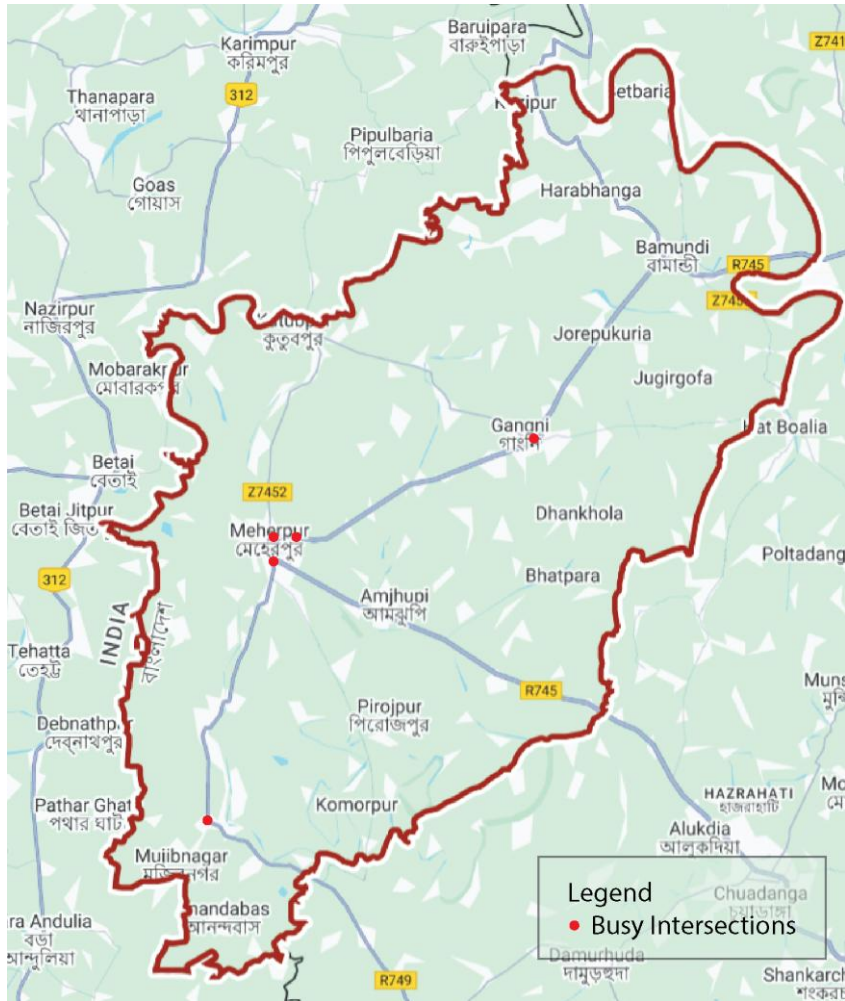


Figure 4 Important Intersections

- Gangni Intersection, a busy node facilitating movement from eastern parts of the district and contributing to traffic buildup due to market-related activity.
- Wapda More, located near Meherpur town, also experiences high traffic volume and acts as a transition zone for vehicles entering and exiting the urban core.

4.4 Observed Transportation Issues

4.4.1 Transport Modes

Auto-rickshaws are the most commonly used mode of transport for short-distance travel within urban and peri-urban areas of Meherpur Sadar and its surrounding regions. These three-wheelers offer convenient door-to-door service and are widely accessible throughout the

district. Despite their availability, local users report that fares for short trips of 2 to 3 kilometers tend to be relatively high.

Another prominent mode of transport is the motorcycle, which has seen a sharp increase in use across the district. Motorcycles are commonly used for both personal mobility and informal passenger transport, contributing significantly to the overall traffic volume, especially in narrow internal roads. In recent years, the number of motorcycles in Meherpur has been rapidly increasing, becoming a dominant mode of personal and informal transport across the district. According to local residents, many of these motorcycles operate without proper licensing, particularly for short internal trips within upazilas and unions.

For regional connectivity, buses departing from the Meherpur Bus Terminal provide essential links to other districts, including routes toward Kushtia, Chuadanga, and Dhaka. These regional buses play a vital role in facilitating inter-district mobility for both passengers and freight.

4.4.2 Challenges

- **High Fares for Short Trips:** Auto-rickshaw fares are considered relatively high for short distances (Tk. 20 to Tk. 30 for 2 to 3 kilometers), which may limit affordability for some users.
- **Unregulated Motorcycle Use:** Many motorcycles operate without proper licensing, particularly for short internal trips within upazilas and unions, contributing to unsafe travel conditions.
- **Lack of Speed Regulation and Enforcement:** The absence of speed limits and weak enforcement has led to an increase in road accidents, especially in congested urban areas.
- **Rising Traffic Volume and Congestion:** The sharp increase in motorcycles and informal transport modes adds to overall traffic volume, exacerbating congestion, especially on narrow internal roads.
- **Road Safety Risks:** The combination of uncontrolled vehicle speeds, unregulated operations, and increasing vehicle density raises significant safety concerns for pedestrians and slow-moving traffic.



Narrow road networks



Different Transport Modes



Heavy Traffic Near Meherpur Town

Figure 5 Transportation Issues in Meherpur

5. Data Availability and Collection

A. Road Inventory Data

Comprehensive road inventory data, including details on road length, classification (e.g., highways, arterial roads, local streets), pavement type, and road conditions, are maintained by agencies such as the Roads and Highways Department (RHD) and the Local Government Engineering Department (LGED). This information is crucial to assess the existing infrastructure capacity and to identify gaps and maintenance needs within the road network.

B. Origin-Destination (OD) Data

Unlike registration and road inventory data, OD data—critical for understanding travel patterns and trip distribution—are not readily available from secondary sources. Therefore, primary data collection is necessary. Traffic volume data need to be gathered at strategic locations and intersections identified through a detailed mapping exercise. A preferred map highlighting key traffic corridors and junctions has been prepared to guide this process.

C. Traffic Volume Data Collection Method

Spot video traffic surveys will be conducted at selected locations identified on the preferred map. To ensure comprehensive coverage and accurate data capture, cameras with a 360-degree field of view will be installed at these intersections. This setup allows simultaneous monitoring of all incoming and outgoing traffic streams at each junction, minimizing data gaps and enabling detailed vehicle counts by mode and direction.

The collected video footage will be analyzed to extract traffic volume, vehicle classification, peak hour flow, and turning movement counts. This data will form the basis for travel demand modeling, intersection capacity analysis, and congestion assessment.

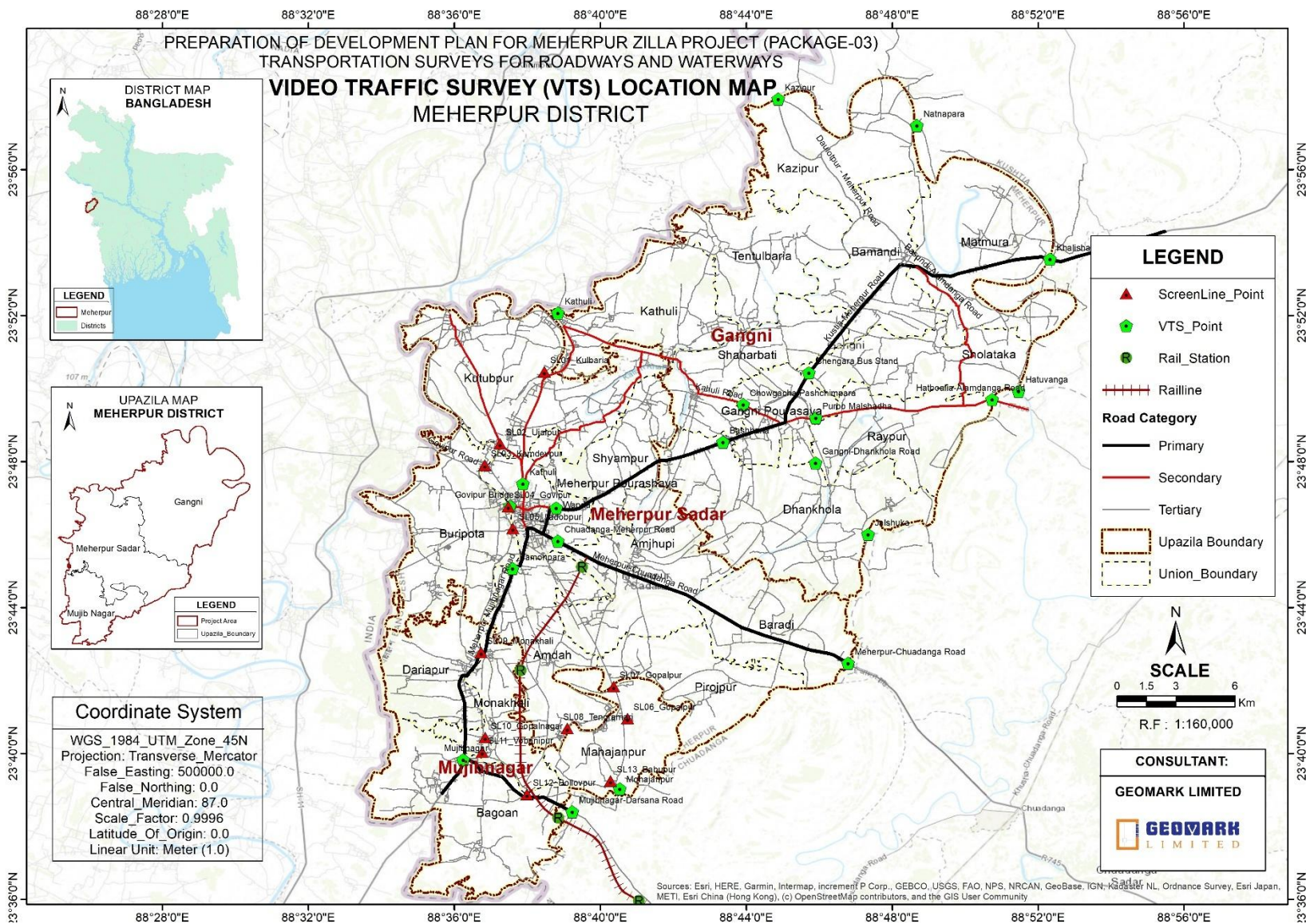


Figure 6 Video Traffic Survey Location for data collection

6. Prospects for Development

Meherpur is poised for significant development driven by several upcoming infrastructure and institutional projects that will shape its urban growth and transport demand patterns.

One of the most important developments is the establishment of a university in Meherpur. Preliminary classes have already started at Meherpur College, signaling the beginning of higher education expansion in the district. Although the final location of the future university campus has yet to be confirmed, three tentative sites are under consideration: the Bangladesh Agricultural Development Corporation (BADC) area, Khorer Math beside the main road, and the PTI field. Given that the university will serve as a major attraction point for both trip generation and trip attraction, future urban and transport planning efforts must prioritize selecting the most suitable site. This decision will significantly influence land use patterns, transportation infrastructure, and mobility needs in the surrounding areas.

Another key development is the planned introduction of a rail line connecting Meherpur town directly to the Darshana rail junction. This new rail connection is expected to improve regional connectivity, facilitate passenger and freight movement, and potentially reduce road congestion by providing an alternative mode of transport.

In addition, a tentative location for a new port has been selected near the border area of Meherpur, as showcased in recent discussions and promotional materials. The development of this port will serve as a critical logistics hub, enhancing trade flows and economic activity in the region. Its proximity to major transport corridors will further catalyze urban growth and necessitate careful planning of access roads and support infrastructure.

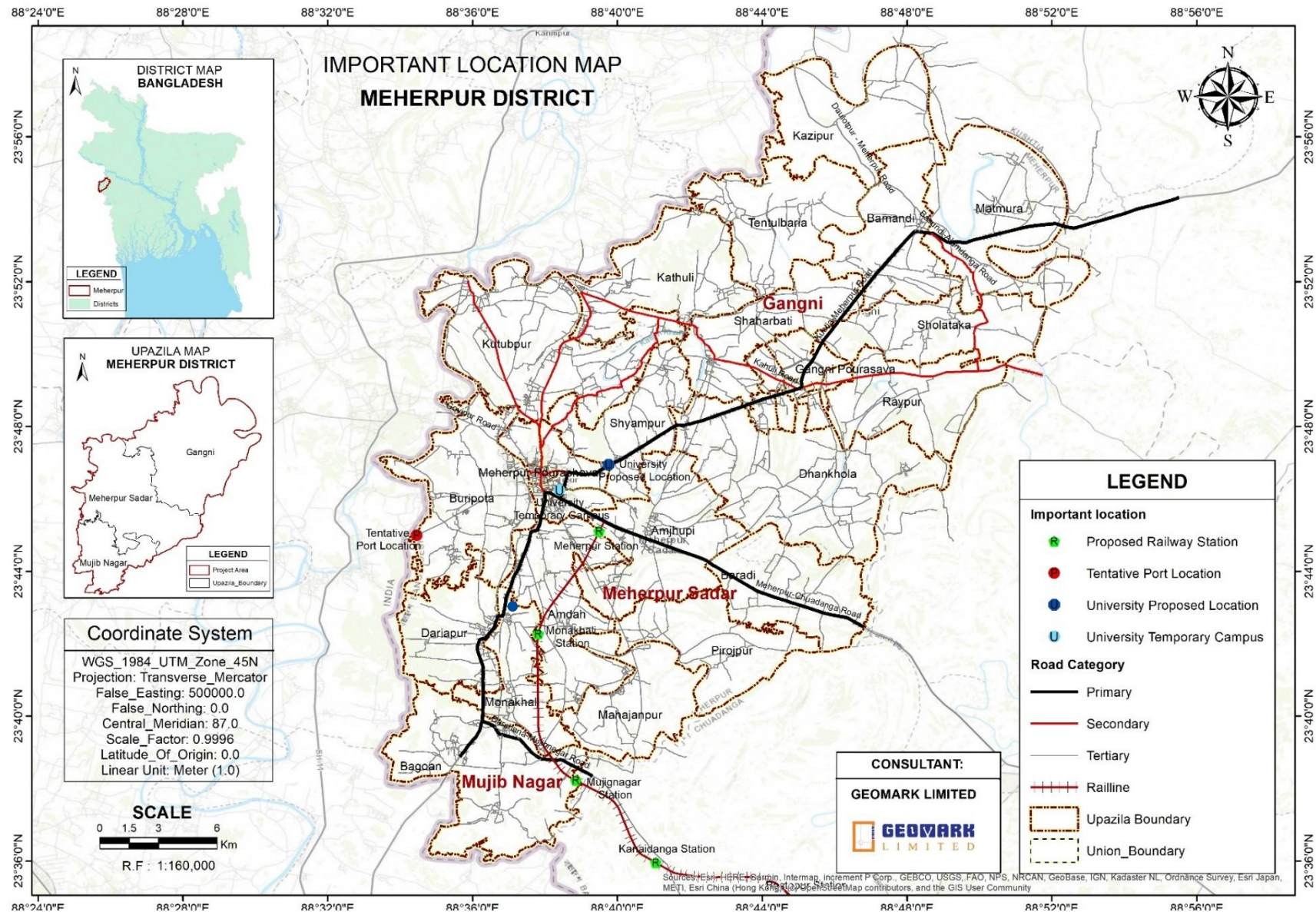


Figure 7 Important location for future development

7. Conclusion

The reconnaissance survey of Meherpur district has provided valuable initial insights into the existing transportation landscape, revealing a system primarily reliant on its road network with limited current utilization of waterway transport. While the road network connects key administrative and economic hubs, significant challenges were observed. These include traffic congestion in Meherpur town due to narrow roads and high concentrations of mixed traffic, particularly auto-rickshaws and a rapidly growing number of motorcycles. Issues such as relatively high fares for short-distance auto-rickshaw trips, the prevalence of unlicensed motorcycle operation, and a general lack of speed enforcement contribute to safety concerns and inefficient traffic flow.

Despite these challenges, Meherpur holds considerable prospects for development. The establishment of Meherpur University, the planned new rail link to Darshana, and the potential development of a new port near the border are poised to significantly alter travel patterns and freight movement, driving economic growth but also placing further demands on the transport infrastructure.

This initial survey underscores the critical need for the forthcoming Transportation Master Plan. The subsequent phases, involving detailed data collection such as Origin-Destination surveys and comprehensive traffic volume counts using advanced methods like 360-degree video surveys, will be essential. These will build upon the foundational understanding gained during this reconnaissance phase, enabling the formulation of targeted strategies. The Master Plan must address the identified challenges of congestion, safety, and unregulated transport while strategically planning for the impacts of future growth. Ultimately, the goal is to develop a sustainable, safe, and efficient transportation system that supports Meherpur's economic aspirations and enhances the quality of life for its residents, in line with "Vision 2041".