DHAKA TRANSPORT COORDINATION AUTHORITY (DTCA)

PREPARATION OF COMPREHENSIVE TRANSPORT MASTER PLAN WITH PRE-FEASIBILITY STUDY OF MASS TRANSIT NETWORK & CONCEPTUAL DESIGN OF MULTIMODAL HUB FOR NARAYANGANJ CITY CORPORATION

REQUEST FOR QUOTATION FOR TRAFFIC SURVEY (PACKAGE 2) IN PROJECT STUDY AREA









Request for Quotation (RFQ) No: 7060613-NCTMP-TRA-TOR-002

Issue Date: October 2023

Quotation Submission Letter

[Use Letter-head Pad]

To

Team Leader

Consultancy Services for Preparation of Comprehensive Transport Master Plan with Pre-Feasibility Study of Mass Transit Network & Conceptual Design of Multimodal Hub for Narayanganj City Corporation Project

ACE Consultants Ltd., Bangladesh in Joint Venture with BCL Associates Ltd., SMEC International Pty. Ltd., and YOOSHIN Engineering Corporation

House-27 (4th Floor), Sohrawardy Avenue, Baridhara, Dhaka-1212, Bangladesh

Email: MdMahabubul.Bari@smec.com

Re: Request for Quotation (RFQ) No: 7060613-NCTMP-TRA-TOR-002

We, the undersigned, offer to execute in conformity with the 'Conditions of Contract' for execution of the work named Request for Quotation for Traffic Survey works required for the Preparation of Comprehensive Transport Master Plan with Pre-Feasibility Study of Mass Transit Network & Conceptual Design of Multimodal Hub for Narayanganj City Corporation Project under the Dhaka Transportation Coordination Authority, Bangladesh (Package 2).

Have examined the above-mentioned Request for Quotation (RFQ), inspected the site and being familiar with all supporting information, we offer to execute the contract for the work described in this RFQ using the 'Contract Agreement' included in the RFQ.

The total Price of our Quotation including applicable Tax and VAT is **[insert amount both in figure and words]**.

Our Quotation shall remain valid for a period of 60 days from the date of submission and it shall remain binding upon us and, may be accepted at any time prior to its expiry date.

We declare that we have the legal capacity to enter a contract with you and have not been declared ineligible by the Government of Bangladesh on charges of engaging in corrupt, fraudulent, collusive or coercive practices.

We are not submitting more than one quotation in this RFQ process in our own name or other name or in different names. We understand that your written invitation to sign the contract shall become binding upon us, until a formal contract is signed.

We have examined and have no reservations to the RFQ document issued by you on October 2023.

We understand that you reserve the right to reject all the quotations or annul the procurement proceedings without incurring any liability to us.

Signature of the Bidder

Seal

Date

INTRODUCTION

Narayanganj, a city in Bangladesh, is forked by the Shitalakshya River. A bustling river port due to its convenient location and good transport connections through road, rail, and waterways, Narayanganj is still a thriving business place for thousands of businesses. For the capital Dhaka, Narayanganj serves as a gateway to the Sylhet and Chattogram Region. In the recent past (2011), the Narayanganj Municipality was upgraded to Narayanganj City Corporation (NCC) coining Narayanganj, Siddhirganj, and Kadamrasul Municipality on the opposite bank of the Sitalakshya River to ensure a better living place.

However, due to unregulated development, unplanned urbanization, and an influx of people from nearby districts seeking job opportunities, NCC has become a congested and disorderly place with heavy traffic. The city, covering an area of 72.43 square kms, has a population of approximately two million people. Despite its challenges, Narayanganj remains an important commercial and industrial hub in Bangladesh. Narayanganj has been identified as one of the ten poorest districts of Bangladesh.

DTCA has undertaken a project to develop a comprehensive transport master plan (CTMP) for the Narayanganj City Corporation (NCC) area. The executing agency, DTCA, has appointed the joint venture consisting of ACE Consultant Ltd. (lead firm), BCL Associates Ltd., SMEC International Pty Ltd., and YOOSHIN Engineering Corporation to provide consultancy services for "Package No S1: Preparation of Comprehensive Transport Master Plan with Pre-Feasibility Study of Mass Transit Network and Conceptual Design of Multimodal Hub for Narayanganj City Corporation." This assignment is part of the "Preparation of Comprehensive Transport Master for Narayanganj and Gazipur City Corporation Project," which is funded by the Government of the People's Republic of Bangladesh (GoB).

To undertake the study, the Consultant intends to undertake the following traffic survey. For Traffic survey work of NCC CTMP are divided into three packages which are shown in the table below.

	Package one		Package two	Pa	ckage three
1.	Classified Traffic Count (CTC); (Location: 14)	1.	Classified Traffic Count (CTC); (Location: 15)	1.	Axle Load Survey
2.	Roadside Interview (RSI) Survey; (Location: 14)	2.	Roadside Interview (RSI) Survey; (Location: 15)		
3.	Pedestrian Count and Interview (PCI); (Location: 16)	3.	Pedestrian Count and Interview (PCI); (Location: 17)		
4.	Stated Preference Survey (SPS)	4.	Travel Time Survey (TTS)		
5.	Bus Operator Survey (BOS)	5.	Household Interview Survey (HIS)		
6.	Bording Alighting Survey (BAS)	6.	Establishment Survey		
7.	On-board Passenger Survey	7.	Tour Dairy Survey		
8.	Terminal Passenger Survey and Count				

This TOR is under package 2 which will cover the following survey

	Survey for Package Two	Purpose
1.	Classified Traffic Count (CTC); (Location: 15)	Traffic volume count
2.	Roadside Interview (RSI) Survey; (Location: 15)	Origin – Destination Data
		Vehicle Occupancy (VO) Data
3.	Pedestrian Count and Interview (PCI); (Location:	Pedestrian count and OD
	17)	
4.	Travel Time Survey (TTS)	Travel Time and Congestion time
5.	Household Interview Survey (HIS)	Travel behaviour
6.	Establishment Survey	Freight movement (OD)
7.	Tour Dairy Survey	Freight movement (OD)

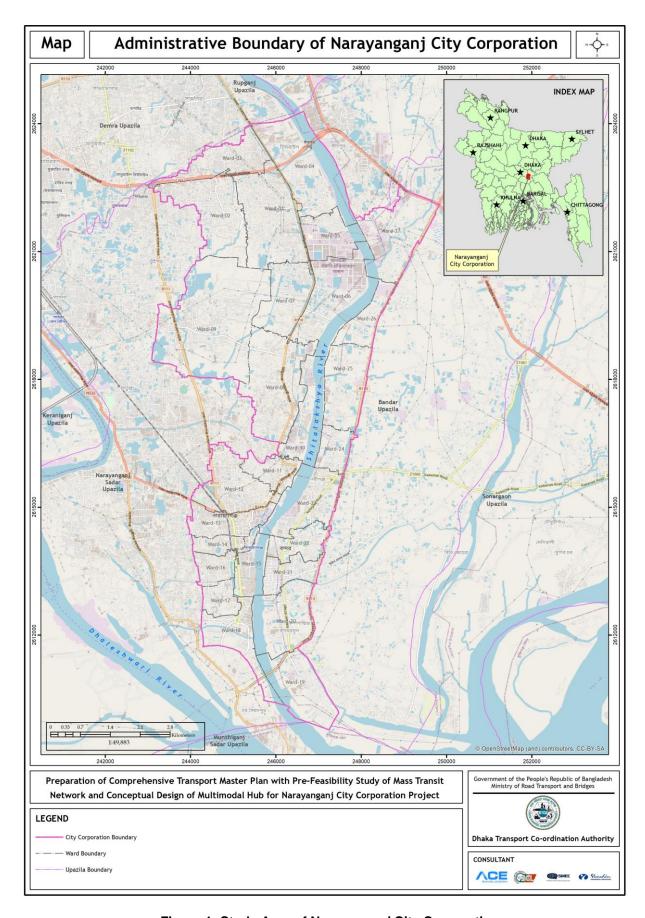


Figure 1: Study Area of Narayanganj City Corporation

INSTRUCTION TO BIDDERS

SUBMISSION AND OPENING OF THE QUOTATION AND OTHER CONDITIONS

Bidders shall submit their 'Quotations' consisting of 'Technical Proposal' and 'Financial Proposal' for the survey. The Sub Consultant is advised to inspect the project area before submitting the proposal. The Technical Proposal shall include but not limited to,

- 'Method Statement' to be followed to carry out the field survey and other relevant works.
- Detailed 'Work Programme' showing the tasks to be undertaken and the duration of each individual task to be completed within the stipulated time period.
- Separate 'Safe Work Method Statement (SWMS)' identifying hazards associated with individual tasks and control measures to be adopted in order to minimize the risk.
- 'Company Profile' focusing on relevant information concerning previous similar Work Records in relevant Survey works within the past five years with their project completion certificates or work order from their clients.
- **Signed** (with Ballpoint Pen by Key Persons) and **Updated CVs** for key personnel such as Team Leader/Project Manager, Project Coordinator, Sr. Field Supervisor and Field Supervisor need to be assigned for the work and these need to be authenticated by the bidder.
- Key personnel qualifications, minimum experience and required number of CV listed in the table below need to submit in the proposal.

SI	Designation	Qualification	Minimum Experience (years)	No of Persons
1	Leader/Project Manager	BSc in Civil Engineering / Relevant field	5	1
2	Project Coordinator	BSc or Diploma in civil engineering/ relevant field	3	1
3	Sr. Field Supervisor	Diploma in civil engineering/ relevant field	2	2
4	Field Supervisor	Diploma in civil engineering/ relevant field	1	4

- Equipment's workability and availability evidence/documents should be submitted.
- Updated Trade License or Article of Association or Incorporation (as appropriate).
- Updated Income Tax and VAT Certificates.
- Bidders are highly encouraged to submit a checklist as a summary of documents included.
- Bidders are highly encouraged to submit their documents in black and white rather than using colour printer.
- Please print both sides of a page to save the environment for both technical and financial proposals
- The Sub Consultant will need to seek approval from the local law enforcement authority prior to the commencement of the survey as soon as possible. DTCA, the client as well as the JV consultant will be able to help the Sub Consultant in this regard.

The Technical and Financial proposals shall be submitted separately in <u>sealed envelope</u>. One original with two photocopies of 'Technical Proposal' in a sealed envelope and One original with Two Photocopies of 'Financial Proposal' in another sealed envelope.

1. Sealed Envelope 01: With Only Technical Proposal for Technical Evaluation (One original with two photocopies).

2. Sealed Envelope 02: With Only Financial Proposal for Bid Opening and Financial Evaluation (One original with two photocopies).

After completion of Technical Evaluation with sealed envelope 01, the Consultant will undertake financial evaluation. The minimum threshold for Technical Proposal will be decided by the Technical Committee. Only technically accepted proposals will be selected for financial evaluation. After the financial evaluation, only the lowest bidder will be invited for negotiations and subsequent award. If for any reasons, the lowest bidder is unable to accept the offer, the Consultant reserves the right to reach the subsequent lowest bidders. (i.e.; If the same bidder belongs to packages 1 and 2 and becomes the lowest bidder for each package, in that case, the Consultant has right to invite 2nd or 3rd or subsequent lowest bidder for negotiations and subsequent award for each package.)

The Consultant's Bid Committee reserves the right to call for negotiation with recommendation of Technical Committee. In a case where two or more responsive quotations have the same evaluated price, the successful quotation shall be decided by lottery. The Sub-Contractors are requested to specify the unit cost of each type of traffic survey as requested in BOQ. In case of any amendments, the total cost of the survey will be calculated based on the unit cost.

The Consultant reserves the right to cancel or amend the full traffic survey at any time during the procurement process.

WORKS PROGRAMME/ METHODOLOGY

The Bidders shall submit a detailed methodology explaining how they propose to conduct the traffic survey as described in the TOR including the types of equipment to be used. They shall also submit a 'Work Programme' outlining the time frame.

For the detailed scope of work, please check the Terms of Reference (TOR) and specification.

The table below illustrates the technical evaluation details as well as the scoring for each of them. Bidders are requested to follow the evaluation scoring to prepare their proposal.

Table 1: Technical Evaluation Form and Scoring

SI. No.	Description	Percentage Mark (max)	Details
01	Trade License or Articles of Association or Certificate of Incorporation (Most updated or including renewal documents)	Mandatory	Absence of the document or renewed document will disqualify the bidders from the bidding process.
02	VAT Registration Certificate (BIN)	Mandatory	Absence of the document will disqualify the bidders from the bidding process.
03	Tax Certificate (TIN Certificate)	Mandatory	Absence of the document will disqualify the bidders from the bidding process.
04	Financial Solvency Certificate	Mandatory	
05	Method Statement	25	
06	Detail Work Program	10	
07	Safe Work Method Statement (SWMS)	10	

SI. No.	Description	Percentage Mark (max)	Details
08	Relevant Work Experience or Work Record by Company or Key Persons in the last 5 years	25	
09	Signed CV of Technical Personnel	20	
10	Equipment's workability and availability (Evidence/Documents)	5	
11	Quality of report submission	5	









Preparation of Comprehensive Transport Master Plan with Pre-Feasibility Study of Mass Transit Network & Conceptual Design of Multimodal Hub for Narayanganj City Corporation Dhaka Transport Coordination Authority





TERMS OF REFERENCE

Traffic Survey (Package-2)

31 October 2023

Document Control

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ABBREVIATIONS

BOQ Bill of Quantities
CO Carbon Monoxide

CTMP City Transport Master Plan

CV Curriculum Vitae

EPZ Export Processing Zone
GOB Government of Bangladesh

JV Joint Venture MS Micro Soft

NCC Narayanganj City Corporation

PM Particulate Matter

PPE Personal Protection Equipment

RFQ Request for Quotation
RHD Roads and Highways
SLM Sound Level Meter

SWMS Safe Work Method Statement
TIN Taxpayer Identification Number

TMP Traffic Management Plan

TOR Terms of Reference VAT Value Added Tax

1 OVERVIEW

The assigned task for the CTMP for NCC includes conducting a pre-feasibility study of a mass transit system and creating a conceptual design for a multi-modal hub. The focus of this study is to address social, economic, and environmental concerns while promoting citizen participation. The goal is to support NCC's vision of developing a planned city that is eco-friendly, clean, healthy, safe, and free from poverty. The CTMP aims to ensure that the transport system in Narayanganj is modern, efficient, sustainable, and capable of meeting the needs of its growing population.

1.1 Introduction

This document shall be applied to the "Traffic Survey (Package- 2)" for "Preparation of Comprehensive Transport Master Plan with Pre-Feasibility Study of Mass Transit Network and Conceptual Design of Multimodal Hub for Narayanganj City Corporation." Being carried out by the ACE-BCL-SMEC-YOOSHIN JV. Which consists of ACE Consultant Ltd. (lead firm), BCL Associates Ltd., SMEC International Pty Ltd., and YOOSHIN Engineering Corporation

To undertake the study, the Consultant intends to undertake a comprehensive traffic survey. For the Traffic survey work of NCC CTMP is divided into three packages. This document outlines the Terms of Reference (TOR) for the proposed traffic survey under package 2 as described in Table 2.

	Survey for Package two	Purpose
1.	Classified Traffic Count (CTC); (Location: 15)	Traffic volume count
2.	Roadside Interview (RSI) Survey; (Location: 15)	Origin – Destination Data
		Vehicle Occupancy (VO) Data
3.	Pedestrian Count and Interview (PCI); (Location: 17)	Pedestrian count and OD
4.	Travel Time Survey (TTS)	Travel Time and Congestion time
5.	Household Interview Survey (HIS)	Travel behaviour
6.	Establishment Survey	Freight movement (OD)
7.	Tour Dairy Survey	Freight movement (OD)

Table 2: Proposed Traffic Survey

1.2 Objective

For NCC CTMP as well as to ensure a successful pre-feasibility study of a mass transit system and creating a conceptual design for a multi-modal hub, a comprehensive traffic survey is required at specific locations.

1.3 Project area

Narayangani City Corporation and its vicinity.

1.4 Scope of Works

The scope of the traffic survey includes, but not necessarily limited to, the following:

- Classified Traffic Count (CTC)
- Roadside Interview (RSI) Survey
- Pedestrian Count and Interview (PCI)
- Travel Time Survey (TTS)
- Household Interview Survey (HIS)

- Establishment Survey
- Tour Dairy Survey
- Preparation of all relevant safety documentation (e.g., SWMS) and submission to the JV Consultant for approval prior to conducting site works. It is the responsibility of the survey company to take all necessary steps to conduct the survey work safely.

1.5 The Client and the JV Consultant

The Client is the Dhaka Transport Coordination Authority (DTCA) and the JV Consultants are ACE Consultants Ltd., in JV with BCL Associates Ltd., SMEC International Pty Ltd., Yooshin International Corporation. All survey works shall be monitored in the field by the JV Consultant and the representative of DTCA. All survey works are required to be approved by the JV Consultant.

1.6 Sub-Consultant

All survey work associated with the project will be carried out by the Sub-Consultant appointed under this agreement. The bidder before the award of the work will undergo a technical and financial evaluation (separately).

1.7 Sub-Consultant's Obligations

The Sub-Consultant shall liaise with the representative of the JV Consultant and/ or DTCA on a daily basis to discuss day-to-day activities, progress, and problems encountered. In performing their duties, the Sub-Consultant shall:

- Deploy suitably qualified and experienced staff with each survey team.
- Obtain all necessary approval/ prior permission from the relevant authority.
- Submit a detailed programme of works showing the tasks to be undertaken and the duration of each individual task.
- Submit detailed method statement of all field survey works before commencing site operations to ensure safety.
- Submit daily progress report for all field surveys to JV Consultant.
- If applicable, provide a list of all machinery, equipment, and software necessary to carry out the work along with their updated workability, calibration, and license renewal records.
- Organize necessary transport and accommodation for survey staff to perform the fieldwork.
- During the execution of the work, submit progress reports to the JV Consultant.

JV Consultant considers safety as the utmost priority in conducting any field survey work. It is obligatory for the Sub-Consultant to take all necessary steps to conduct the survey work in a safe manner. All machinery and equipment to be used in the field must be safe to use and field personnel must wear appropriate "Personal Protection Equipment" (PPE).

While surveying on/near existing roads or in a crowded area, an appropriate "Traffic Management Plan" (TMP) shall be prepared and implemented during field survey work, as required. Caution shall be exercised while surveying near an existing overhead power line or any other hazardous objects or situation. No member of the survey team should take any risks to perform survey work near live traffic.

1.8 Duration of Work

- Field survey work shall commence within seven (07) calendar days from the date of award of the contract.
- Survey duration and time details are shown in Table 3.

Table 3: Survey duration and time

Survey for Package Two	Survey Duration and Time
Classified Traffic Count (CTC); (Location: 15)	 72 hours, Three days (7:00 am Saturday to 7:00 am Tuesday): 13 Location
	 96 hours, Four days (7:00 am Friday to 7:00 am Tuesday) : 1 Location
	 168 hours, Seven days (7:00 am Friday to 7:00 am Friday): 1 Location
2. Roadside Interview (RSI) Survey; (Location: 15)	 72 hours, Three days (7:00 am Saturday to 7:00 Tuesday): 15 Location
3. Pedestrian Count and Interview (PCI); (Location: 17)	 16 hours per day for three days (i.e.; Saturday to Monday; 7:00 am to 11:00 pm): 17 Location
4. Travel Time Survey (TTS)	 Saturday and Sunday for car, bus, motorcycle, rickshaw and pedestrian
	 Three seasons for Car, bus and motorcycle in a day
	 Four seasons for rickshaw and pedestrian in a day
5. Household Interview Survey (HIS)	 Total sample: 4,528; conduct survey any day in the week
6. Establishment Survey	Total sample: 233; conduct survey any day in the week
7. Tour Dairy Survey	Total sample: 200 (roadway: 150, waterway: 50)

1.9 Transportation

All travel arrangements including transportation of the Sub-Consultant's personnel and equipment to perform the job at site and transportation between job sites shall be provided by the Sub-Consultant.

1.10 Accommodation and Other Expenses

Accommodation for the Sub-Consultant's personnel and storage of the equipment at the site and other expenses such as the establishment of a temporary tent, per diem, coordination fees, communication fees, first aid kit, medicine, etc., shall be provided by the Sub-Consultant.

1.11 Work Programme and Method Statement

The Sub-Consultant shall submit a 'Work Programme' outlining how they propose to execute the works within the timeframe given in the relevant clause of the TOR. The Sub-Consultant shall submit details of the technical team including CVs of all technical personnel. The Sub-Consultant shall submit details of equipment and machineries to be used in executing the works. Availability of the technical personnel, equipment and machineries will be verified by the JV Consultant. The Sub-Consultant shall submit details of his work experience in undertaking similar works completed within the last 5 years. The Sub-Consultant shall submit a 'Method Statement' of how he will execute the works as per the requirements of the TOR before starting his works. A separate 'Safe Work Method Statement' (SWMS) identifying potential hazards associated with individual tasks and control measures to be adopted in order to minimize the risk, shall be submitted.

In order to execute the survey works within the proposed timeframe, the survey team is required to be mobilised as early as possible. Specific survey locations are to be agreed by the JV Consultant. The minimum requirement of the equipment and manpower should be specified from Sub-Consultants.

1.12 Terms of Payment

Payment shall be made as follows:

- The rates will cover all costs incurred by the Sub-Consultant, and no separate payment shall be made for any other costs not included in the Bill of Quantities (BOQ).
- After mobilization for field survey work, the sub-consultant may claim 20% of the total contract value.
- After completion of the field survey work and submission of the deliverables, the sub-consultant may claim 50% of the total contract value.
- The remaining final 30% payment will be paid on acceptance of all the electronic copies and paper copies of the documents. Final payment shall be made within one (01) month of the submission of the final invoice. This shall be submitted after the acceptance of the Sub-Consultant's all deliverables (both electronic and paper versions).
- A penalty of BDT 2,500.00 per day will be imposed for any delay in the deliverables. However, the maximum amount of penalty will be 20% of the final bill amount.
- Tax and VAT will be deducted from each payment as per the rules of the Government of Bangladesh.
- Any delay in starting the survey work mentioned in Section No. 1.8 will result in the termination of the contract.

Invoices shall be submitted to the JV Consultant's Team Leader. Advance payment will not be allowed for this work.

2 Technical Specification for Field Work and Data Collection

This site appreciation has been prepared based on the site reconnaissance survey carried out by the Consultant's team. The Sub-consultant, after a site visit, may propose alternative locations due to unavoidable circumstances with prior discussion with the Consultant.

The consultant has undertaken site visit to familiarize with the ground conditions.

2.1 Classified Traffic Count (CTC)

The objective is to identify travel patterns that vary in time of day and week from a representative sample.

2.1.1 Survey Methodology and Equipment Specifications

The Classified Traffic Count (CTC) Survey equipment specifications are as follows:

- 15-minute interval directional traffic flow needs to be counted at mid-block count and turning movement for intersection count location.
- The traffic count needs to be conducted at a time for all locations under Package 1 and Package 2.
- 24 types of vehicles need to be considered (excluding pedestrians; pedestrian count will be covered under pedestrian count and interview survey) for traffic count (see: **Appendix A**).
- Video cameras should be used to capture video recordings.
- Video cameras should be equipped with night vision capabilities and wide-angle vision approved by JV Consultants.
- Video camera should be mounted above vehicle height (approximately 6 to 10 m above) adjacent to or in the middle (on the median) of the roadway.
- Video footage should be clear enough to identify vehicle classification.
- Availability of lights during dark.
- Due to adverse weather or for absence of electricity, an alternative power supply needs to be provided.
- One field Supervisor and one technician should be present on site per shift for each location.
- The minimum number of cameras for each location is mentioned in **Appendix C**. The Sub-Consultant should follow it.

2.1.2 Location and Duration of Survey

Classified Traffic Count (CTC) survey needs to be conducted at 15 locations including mid-block locations, three-leg intersections and four-leg intersections. Duration and location are as follows:

- 72 hours, Three days (7:00 am Saturday to 7:00 am Tuesday): 13 Location
- 96 hours, Four days (7:00 am Friday to 7:00 am Tuesday): 1 Location
- 168 hours, Four days (7:00 am Friday to 7:00 am Friday): 1 Location

Classified video traffic count survey location map is shown in **Appendix B** and Details of survey locations including coordinates and duration are available in **Appendix C**.

2.1.3 Data Entry Sheet

Classified video traffic count survey sample sheet is available in **Appendix D**

2.2 Roadside Interview (RSI) Survey

The objective of this survey is to understand the OD pattern. Vehicle occupancy information is included in the RSIs' questionnaire.

2.2.1 Survey Methodology and Equipment Specifications

The Roadside Interview survey (RSI) needs to follow the following requirements:

- All RSI locations should be covered for the CTC survey. RSI needs to be conducted at a time for all locations under Package 1 and Package 2.
- RSI survey is expected to cover a significant percentage (minimum 10%) of the total traffic which will be enough to be representative following the industry standard. Sample numbers also need to be stratified based on the traffic count.
- 24 types of vehicles need to be considered (excluding pedestrians; pedestrian count will be covered under pedestrian count and interview survey) for traffic count (see: Appendix A).
- All required information on the Roadside Interview Survey (RSI) form needs to be fully completed. The Sub-consultant is encouraged to use the digital data collection process using smart tabs such as Kobo Toolbox or similar.
- RSI survey needs to cover all directional flow at mid-block as well as intersection location.
- Enough lighting needs to be arranged for RSI survey during the dark.
- Proper road safety measures need to be taken to conduct roadside interviews.
- One field Supervisor and four surveyors (minimum) should be present on site per shift for each location on each side of the road where RSI survey will be conducted. RSI sites are to be surveyed for both directions at Mid-Block and all approach directions of intersection.

2.2.2 Location and Duration of Survey

Roadside Interview (RSI) survey needs to be conducted at 15 locations including mid-block locations, three-leg intersections and four-leg intersections. Duration and location are as follows:

- 72 hours, Three days (7:00 am Saturday to 7:00 Tuesday): 15 Location

2.2.3 Questionnaire and Data Entry Sheet

Roadside Interview Survey (RSI) survey form is shown in **Appendix E.** TAZ number/IDs will be provided by the Consultant for the sub-consultant to follow.

2.3 Pedestrian Count and Interview (PCI) Survey

The objective is to capture the pedestrian flow and OD pattern in the NCC area.

2.3.1 Survey Methodology and Equipment Specifications

Pedestrian count and interview survey need to follow the following requirements.

- 15-minute interval directional pedestrian flow of both sides of the road needs to be counted at mid-block count and the pedestrian number crossing the road at the intersection.
- The pedestrian count needs to be conducted at a time for all locations under Package 1 and Package 2 with the Classified Traffic Count (CTC) survey.
- Video cameras should be used to capture video recordings.
- Video cameras should be equipped with night vision capabilities and wide-angle vision approved by JV Consultants.

- The video camera should be mounted above vehicle height (approximately 6 to 10 m above) adjacent to or in the middle (on the median) of the roadway.
- Video footage should be clear enough to identify the pedestrian movement.
- Availability of lights during dark.
- Due to adverse weather or for absence of electricity, an alternative power supply needs to be provided.
- One field Supervisor and one technician should be present on site per shift for each location.
- All required information in the Pedestrian Interview Survey form needs to be fully completed.
 The Sub-consultant is encouraged to use the digital data collection process using smart tabs such as Kobo Toolbox or similar.
- Pedestrian Interview Survey need to be conducted simultaneously and is expected to cover a significant percentage (minimum 10%) of the total pedestrian which will be enough to be representative following the industry standard.
- Pedestrian Interview Survey need to cover all directional flow at mid-block as well as intersection location.
- For two locations, need additional camera for pedestrian count, other location will cover through camera arrangement of CTC.

2.3.2 Location and Duration of Survey

Pedestrian count and interview survey need to be conducted at 17 locations including mid-block locations, three-leg intersections and four-leg intersections. Duration and location are as follows:

16 hours per day for three days (i.e., Saturday to Monday; 7:00 am to 11:00 pm): 17
 Location

Pedestrian Count and Interview survey location map is shown in **Appendix F** and Details of survey locations including coordinates and duration are available in **Appendix C**.

2.3.3 Questionnaire and Data Entry Sheet

Pedestrian survey form is shown in **Appendix G.** TAZ number/IDs will be provided by the Consultant for the sub-consultant to follow. Pedestrian count survey sample sheet is available in **Appendix H.**

2.4 Travel Time Survey (TTS)

The objective of this survey is to determine the travel time of the corridor including congestion time

2.4.1 Survey Methodology and Equipment Specifications

2.4.1.1 Travel Time Survey using Car

- For each route, each day one passenger car will dispatch from one end of the route at a specified time. Another car will dispatch from the opposite end at the same time. In each session both cars will coincide with their starting time.
- Instruction will be provided to the drivers to drive at the speed of the average traffic stream, avoiding speeding and aggressive overtaking in free-flow sections.
- Each route is divided into nodes (nodes may be an intersection or specific landmarks) and links (the section between two intersections or landmarks) to find out continuous travel time depending on the circumstances.
- Usually, along with the driver there will be an enumerator who is presented with printed sheets containing the names of the nodes and instructed to note down the time 'after' crossing each node. The enumerator will also record the full journey time, and delay at stoppages such as intersections and distance travelled during the survey run. Delay locations will also be noted so

- that congestion points can be identified. He will use a stopwatch, record sheet (paper/electronic device) for this purpose.
- The driver is also instructed to ensure that he does not make any stops while traversing a route.
 All stops for re-fuelling, refreshment, etc. are performed after the driver has reached one end.
 Special arrangements are made with gas stations to ensure that the vehicles do not have to queue to refuel.
- A GPS tracker needs to be used to record the trip information.
- Survey route, time and season are shown in the Table 2-1 and Table 2-2

2.4.1.2 Travel Time Survey using Bus

- The survey will be undertaken by one enumerator per bus trip. The enumerator will board the bus at the start point of the route and get off the bus at the endpoint in one session for each route. Another enumerator will board the bus from the opposite direction of the route at the same time.
- The Enumerators will sit near the driver where he can observe traffic. He will record the day, date, route number, direction of trip, and vehicle type before the trip starts. He will then record the full journey time, delay at stoppages and intersections using a watch and distance travelled by GPS-handled instrument. Delay locations will also be noted so that congestion points can be identified.
- A GPS tracker needs to be used to record the trip information.
 Survey route, time and season are shown in the Table 2-1 and Table 2-3

2.4.1.3 Travel Time Survey using Motorcycle

- For each route, each day one motorcycle will dispatch from one end of the route at a specified time. Another motorcycle will dispatch from the opposite end at the same time. In each session both motorcycles will coincide with their starting time.
- Usually, along with the motorcycle driver, there will be an enumerator who will ride the motorcycle and he will also record the full journey time, and delay at stoppages such as intersections and distance travelled during the survey run. Delay locations will also be noted so that congestion points can be identified.
- A GPS tracker needs to be used to record the trip information.
- Survey route, time and season are shown in the Table 2-1 and Table 2-4

2.4.1.4 Travel Time Survey using Rickshaw

- For each route, one enumerator will take a Rickshaw at the start of the route and get off the vehicle at the endpoint in one session for each route. Another enumerator will take the Rickshaw from the opposite direction of the route at the same time.
- The enumerator will record the full journey time, and delay at stoppages such as intersections and distance travelled during the survey run. Delay locations will also be noted so that congestion points can be identified. Enumerator will use a stopwatch, record sheet (paper/electronic device) for this purpose.
- A GPS tracker needs to be used to record the trip information.
 Survey route, time and season are shown in the Table 2-1 and Table 2-5

2.4.1.5 Travel Time Survey using Walking

For each route, one enumerator will start walking at the start of the route and stop at the endpoint
in one session for each route. Another enumerator will start walking at the start of the route and

- stop at the endpoint at the same time. In each session both enumerators will coincide with their starting time.
- The enumerator will record the full journey time, and delay at stoppages such as intersections and distance travelled during the survey run. Delay locations will also be noted so that congestion points can be identified. He will use a stopwatch, record sheet (paper/electronic device) for this purpose.
- A GPS tracker needs to be used to record the trip information.
 Survey route, time and season are shown in the Table 2-1 and Table 2-6

2.4.2 Location and Duration of Survey

Table 2-1 shows the travel time survey duration, season and trip number for each mode.

Table 2-1: Duration and Trip Number for Travel Time Survey

	Route	Time/ Sessions/ day	Trip Number
By Car	2	three sessions on Saturday (non-working day) and Sunday (working day). The three sessions are respectively morning time (08:00 AM), noon time (01:00 PM), and evening time (05:00 PM).	24
By Bus	2	three sessions each day, namely morning time (08:00 AM), noon time (01:00 PM), and evening time (05:00 PM) on Saturday (non-working day) and Sunday (working day).	24
By Motorcycle	2	three sessions each day, namely morning time (08:00 AM), noon time (01:00 PM), and evening time (05:00 PM) on Saturday (non-working day) and Sunday (working day).	24
By Rickshaw	3	four sessions each day, namely morning time (08:00 AM), noon time (01:00 PM), evening time (05:00 PM), and night-time (07:00 PM) on Saturday (non-working day) and Sunday (working day).	64
By Walking	3	four sessions each day, namely morning time (08:00 AM), noon time (01:00 PM), evening time (05:00 PM), and night-time (07:00 PM) on Saturday (non-working day) and Sunday (working day).	64

Table 2-2 to Table 2-6 shows the route of travel time for each mode.

Table 2-2: Travel Time Survey Routes for Car

Origin	Latitude	Longitude	Destination	Latitude	Longitude	Distance (km)
Narayanganj City Corporation	23.607984°	90.502701°	Dhaka South City Corporation Office	23.724619°	90.406537°	19.4
Chashara Intersection	23.623682°	90.500088°	Signboard	23.693763	90.48071	13

Table 2-3: Travel Time Survey Routes for Bus

Origin	Latitude	Longitude	Destination	Latitude	Longitude	Distance (km)
Bus Terminal	23.616159°	90.504368°	Dhaka South City Corporation Office	23.724619°	90.406537°	19.2
Chashara Intersection	23.623682°	90.500088°	Jatrabari	23.709742°	90.434564°	13.8

Table 2-4: Travel Time Survey Routes for Motorcycle

Origin	Latitude	Longitude	Destination	Latitude	Longitude	Distance (km)
Narayanganj City Corporation	23.607984°	90.502701°	Signboard	23.693763°	90.480710°	10
Bandar Water Pump	23.617489°	90.511840°	Kandapara Mosque	23.689218°	90.491343°	13.1

Table 2-5: Travel Time Survey Routes for Rickshaw

Origin	Latitude	Longitude	Destination	Latitude	Longitude	Distance (km)
Adamjee EPZ	23.674997°	90.523818°	Darunnajat Siddikia Model Madrasa	23.693984°	90.506393°	3.4
Rupali Bank	23.609888°	90.487702°	Bus Terminal	23.616159°	90.504368°	2.3
Anjuman Mofidul Aytimkhana	23.633181°	90.508980°	Tingaon More	23.635346°	90.535619°	2.9

Table 2-6: Travel Time Survey Routes for Walking

Origin	Latitude	Longitude	Destination	Latitude	Longitude	Distance (km)
Baburail Road	23.611326°	90.496777°	Bus Terminal	23.616159°	90.504368°	1.2
Anjuman Mofidul Aytimkhana	23.633181°	90.508980°	Dargah Sharif	23.630420°	90.519656°	1.7
Muktijoddha Lake	23.672168°	90.513101°	Adamjee EPZ	23.674997°	90.523818°	1.7

The travel time route is shown in Appendix I

2.4.3 Data Entry Sheet

Data entry sheet will be provided before the field survey.

2.5 Household Interview Survey (HIS)

The objective of HIS is to identify the travel behaviour of the NNCs' dwellers.

2.5.1 Survey Methodology and Equipment Specifications

- All required information in the Survey form needs to be fully completed. The Sub-consultant is encouraged to use the digital data collection process using smart tabs such as Kobo Toolbox or similar.
- Total 4,528 sample need to be collected from the study area. 5% sample need to collect as pilot based.
- A GPS tracker needs to be used to record the household location.
- Each member of the Household living in the household will be interviewed for the trips they have done the previous working day.
- An attempt will be made to interview all members of the household under consideration who are older than six. In the case of children, or those who do not travel alone, a parent will be expected to speak for them.
- Every effort will be made to conduct each interview when all members of the household are at home, but in the case of members being absent, the interview will be conducted if another adult is able to provide the relevant information on the absent members. Otherwise later need to collect the trip information of those absent members.
- Number of sample size need to be followed according to the Appendix J.
- The sample can be selected randomly. But two sample cannot be collected from the same building, and Distance between two household sample need to be 50 meters minimum.
- Household income need to be stratified. The consultant will fixed the sample for each TAZ based on household income level.

2.5.2 Location of Survey

The sub-consultant needs to collect those data from the household. Sample distribution is shown in Appendix J

2.5.3 Questionnaire and Data Entry Sheet

The questionnaire of the HIS is shown in Appendix K.

2.6 Establishment Survey

The objective of the Establishment survey is to understand the travel pattern of the freight movement.

2.6.1 Survey Methodology and Equipment Specifications

- All required information in the Survey form needs to be fully completed. The Sub-consultant is encouraged to use the digital data collection process using smart tabs such as Kobo Toolbox or similar.
- Total 233 sample need to be collected from the study area. 5% sample need to collect as pilot based.
- A GPS tracker needs to be used to record the establishment location.

2.6.2 Location and Duration of Survey

The location of establishment survey is shown in Appendix L.

2.6.3 Questionnaire Data Entry Sheet

The questionnaire of the Establishment survey is shown in Appendix L.

2.7 Tour Diary Survey

The objective of the survey is to understand the freight movement in NCC and its vicinity.

2.7.1 Survey Methodology and Equipment Specifications

- Total sample is 200 of which 150 will be freight road vehicles and 50 will be water vessels.
- The base location will be provided by the Consultants before the field survey. These locations
 will be chosen as part of a stratified random sampling technique that will cover at least one
 establishment in each ward of Narayanganj City Corporation.
- The travel diary will be maintained for at least three days. For the survey, a GPS will be attached to the vehicle during the survey period.
- The sub-consultant needs to ensure to collect all information in the form.

2.7.2 Location and Duration of Survey

Starting point for the survey will be provided by the Consultant prior to the field survey. And duration of the survey is Three days (72 hours).

2.7.3 Questionnaire and Data Entry Sheet

The questionnaire of the Establishment survey is shown in Appendix N.

3 DATA DIGITALIZATION, ANALYSIS AND ELECTRONIC COPY

All survey work data need to be digitised, analysed, and supplied in electronic format.

The deliverables of the data will include:

- CTC data needs to be converted into spreadsheets (preferably in MS Excel) for classified traffic.
- RSI data needs to be converted into spreadsheets (preferably in MS Excel).
- Pedestrian count and interview data needs to be converted into spreadsheets (preferably in MS Excel).
- Travel Time data needs to be converted into spreadsheets (preferably in MS Excel).
- Household survey data needs to be converted into spreadsheets (preferably in MS Excel).
- Establishment survey data needs to be converted into spreadsheets (preferably in MS Excel).
- Tour dairy survey data needs to be converted into spreadsheets (preferably in MS Excel).

4 Deliverables

The Sub-Consultant needs to ensure the deliverables of the following.

- All video data in a portable hard disk.
- Electronic copy of all survey data (preferably in MS Excel Files).
- Electronic copy of Classified Traffic Count Survey (preferably in MS Excel Files).
- All paper copies of RSI survey data (if any).
- All electronic copies of RSI survey data.
- All paper copies of HIS survey data (if any).
- All electronic copies of HIS survey data.
- All electronic copies of Travel time survey data.
- All paper copies of Travel time survey data (if any).
- GPS data logger of Travel time survey data (electronic).
- All paper copies of Establishment survey data (if any).
- All electronic copies of Establishment survey data.
- GPS data logger of Tour diary survey data (electronic).
- All paper copies of Tour diary survey data (if any).
- All electronic copies of Tour diary survey data.
- Deliverables should be supplied within 28 days of completion of the Field Survey

5 Schedule of Field Survey Work

Tentative schedule of the field survey work is shown in the Table 5-1 It is recommended to follow the field survey schedule to comply with project duration requirement.

Table 5-1: Schedule of survey

SL. No.	DESCRIPTION	ITEMS		Mo	nth 1		Month 2			
SL. NO.	DESCRIPTION	ITEMS	W1	W2	W3	W4	W1	W2	W3	W4
1	Contract Signing and mobilization									
2	Classified Traffic	Conducting the Field survey								
	Count Survey	Data entry								
3	DCI Curvov	Conducting the Field survey								
3	RSI Survey	Data entry								
4	Pedestrian Count	Conducting the Field survey								
4	and Interview	Data entry								
5	Travel Time Survey	Conducting the Field survey								
5		Data entry								
6	Household Interview Survey	Conducting the Field survey								
	(HIS)	Data entry								
7	Establishment	Conducting the Field survey								
	Survey	Data entry								
8	Tour Dairy Survey	Conducting the Field survey								
	, ,	Data entry								
	Survey Report	Draft								
9	Submission	Final Report								

6 Bill of Quantities

The Bill of Quantities (BOQ) is specified in the table below. The quantity included in Table is indicative and subject to variation in line with the actual field condition.

Table 6-1: Templet for financial proposal

Templet for Financial Proposal (Package-2)												
Item No	Details of Survey Item	Types of Items	Quantity	Unit Rate (BDT)	Amount (BDT)							
1. Classi	1. Classified traffic count survey (CTC)											
1.1	Mid-Block; 72 hours (7:00 am Saturday to 7:00 am Tuesday)											
1.1.2	Video Count Survey	Number of Locations	13		-							
1.1.3	Data processing	Number of Locations	13		-							
1.2	Four Leg Intersection; 96 ho	ours (7:00 am Frida	y to 7:00 an	n Tuesday)								
1.2.1	Video Count Survey - Intersection points	Number of Locations	1		-							
1.2.2	Data processing	Number of Locations	1		-							
1.3	Four Leg Intersection; 168 h	ours (7:00 am Frida	ay to 7:00 a	ım Friday)								
1.3.1	Video Count Survey - Intersection points	Number of Locations	1		-							
1.3.2	Data processing	Number of Locations	1		-							
2. Roads	side Interview Survey											
2.1	Mid-Block; 72 hours; (7:00 a	ım Saturday to 7:00	am Tuesd	ay)								
2.1.1	RSI Survey - Mid Block points	Number of Locations	13		-							
2.1.2	Data processing	Number of Locations	13		-							
2.2	Four Leg Intersection; (7:00	am Saturday to 7:0	0 am Tues	day)								
2.2.1	RSI Survey - Intersection points	Number of Locations	2		-							
2.2.2	Data processing	Number of Locations	2		-							
	strian Count and Interview Sur ay; 7:00 am to 11:00 pm)	vey (PCI); 16 hours	per day fo	r Three days ((i.e., Saturday							
3.1	Pedestrian Count Survey											

	Templet for Financial Proposal (Package-2)								
Item No	Details of Survey Item	Types of Items	Quantity	Unit Rate (BDT)	Amount (BDT)				
3.1.1	Mid-block								
3.1.1.1	Video Count Survey*	Number of Locations	2						
3.1.1.2	Data processing	Number of Locations	15		-				
3.1.2	Four Leg Intersection								
3.1.2.1	Data processing	Number of Locations	2		-				
3.2	Pedestrian Interview Survey	1							
3.2.1	Mid-block								
3.2.1.1	Pedestrian interview	Number of Locations	15		-				
3.2.1.2	Data processing	Number of Locations	15		-				
3.2.2	Three Leg Intersection								
3.2.2.1	Pedestrian interview	Number of Locations	2		-				
3.2.2.2	Data processing	Number of Locations	2		-				
4. Travel	Time Survey	_	1	_					
4.1	Travel time survey by car	Trip	24						
4.2	Travel time survey by bus	Trip	24						
4.3	Travel time survey by motorcycle	Trip	24						
4.4	Travel time survey by rickshaw	Trip	64						
4.5	Travel time survey by pedestrian	Trip	64						
5. House	hold Survey								
5.1	Questionnaire survey	Sample	4,528						
6. Establ	ishment Survey								
6.1	Questionnaire survey	Sample	233						
7. Tour E	Dairy Survey (72 hours)								
7.1	Roadway tour	Tour	150						
7.2	Waterway tour	Tour	50						
8. Report	t								

	Templet for Financial Proposal (Package-2)										
Item No	Details of Survey Item	Types of Items	Quantity	Unit Rate (BDT)	Amount (BDT)						
8.1	Final Report	Сору	5								
A. Tota	al amount excluding VAT & TA	AX (BDT)			-						
B. AIT=	=(A/0.9)*0.1				-						
C. VAT	-										
Total a	-										

 $^{^{\}star}$ For two locations, need additional camera for pedestrian count, other location will cover through camera arrangement of CTC

Appendix A Types of Vehicles

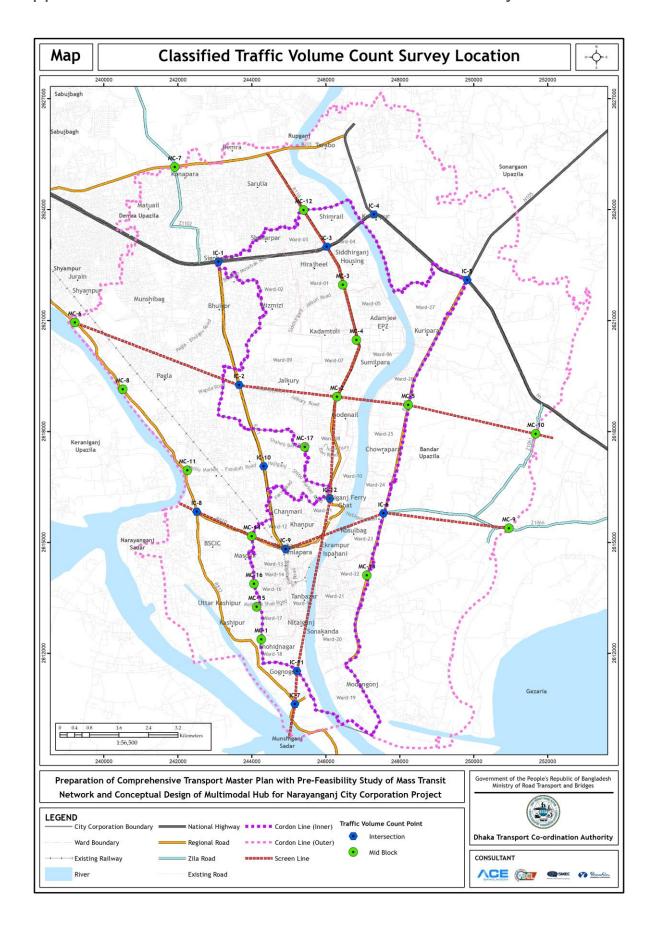
No.	Category	Characteristics	Photo
1	Pedestrian	Person (walking)	*
2	Bicycle	All pedal cycles.	
3	Rickshaw	Three wheeled cycle rickshaws (manual and battery)	
4	School van	Used for school purpose	
5	Rickshaw Van	Three wheeled Van (manual and battery)	
6	Push Car (Thela Gari)	All manually drawn/pushed carts	
7	Motorcycle	All two wheeled motorised vehicles.	

No.	Category	Characteristics	Photo
8	CNG/ Mishuk	Babytaxi and Mishuks, Tempo Auto-Tempo and Auto-Vans	
9	Auto		
10	Car/SUV	All types of cars used for personal or taxi services.	
11	Taxi	All types of cars used for taxi services.	
12	Microbus	Up to 16 seats	
13	Jeep/Pick-up	Jeeps, and four wheels drive vehicles, such as Pajero's and Land Rover's	
14	Tempo/Leguna/Maxi	Fixed route transit service	

	1	T	
No.	Category	Characteristics	Photo
15	Minibus	Between 16 and 39 seats	
16	Large Bus	More than 40 seats on 36 foot or longer chassis. Includes double decker buses	GN
17	AC Bus		
18	Staff Bus		
19	School/College/ University Bus	Jeeps, SUV and four wheels drive vehicles, such as Pajero's and Land Rover's	্বার্থন বিশ্বনিদ্যালয় ভারতিবান জু বিশ্বনিদ্যালয়
20	Small Open Truck/ Small Van	Small trucks up to 3 tonne payload.	dorations to the second
21	Medium Truck/ Truck 2 Axle	All 2-axle rigid trucks	SPEED 2 MS. SPEED

	T	T	
No.	Category	Characteristics	Photo
22	Large Truck/ 3 Axle Truck	All 3-axle rigid trucks	
23	Container Trailer	All container carriers	
24	Tanker/ Tank Lorry		
25	Others (Ambulance, Fire engine, Towing car, Construction vehicles, Armored car, Animal Driven Car, Nosimon, Korimon, etc.)		

Appendix B Classified Video Traffic Count Survey Locations



Appendix C Details of Survey Locations

S	ID	Location	Latitude	Longitude		Duration	of Sur	vey (Day)			Union/	Local	Road	Minimum
N		Types				CTC		RSI		PS	Ward	Address	Type	required Number of
					No of Day	Duration	No of Day	Duration	No of Day	Duration				Cameras
1	IC-6	Four leg intersection	23.633044	90.525621	4	Friday 7 am to Tuesday 7am)	3	Saturday 7 am to Tuesday 7am	3	7 am to 11pm for each three days (Saturday to Monday)	Ward No. 23	Nabiganj	Regional Road (R113)	8
2	IC-8	Three leg intersection	23.632625	90.476136	3	Saturday 7 am to Tuesday 7am	3	Saturday 7 am to Tuesday 7am	3	7 am to 11pm for each three days (Saturday to Monday)	Fatullah Union	Ponchoboti Mor	Regional Road (R812)	6
3	IC-9	Four leg intersection	23.623881	90.499867	7	Friday 7 am to Friday 7am	7	Friday 7 am to Friday 7am	7	7 am to 11pm for each three days (Saturday to Monday)	Ward No. 13	Chashara	Regional Road (R111)	8
4	IC- 10	Four leg intersection	23.643993	90.493666	3	Saturday 7 am to Tuesday 7am	3	Saturday 7 am to Tuesday 7am	3	7 am to 11pm for each three days (Saturday to Monday)	Fatullah Union	Shibu Market	Regional Road (R111)	8
5	IC- 11	Three leg intersection	23.594138	90.503376	3	Saturday 7 am to Tuesday 7am	3	Saturday 7 am to Tuesday 7am	3	7 am to 11pm for each three days (Saturday to Monday)	Ward No. 18	Syedpur	Tertiary Road	6
6	IC- 12	Four leg intersection	23.63637	90.511356	3	Saturday 7 am to Tuesday 7am	3	Saturday 7 am to Tuesday 7am	3	7 am to 11pm for each three days (Saturday to Monday)	Ward No. 11	Chashara - Hajiganj Railline Road	Regional Road (R110)	8

S	ID	Location	Latitude	Longitude		Duration	n of Sur	vey (Day)			Union/	Local	Road	Minimum
N		Types				CTC		RSI		PS	Ward	Address	Type	required Number of
					No of Day	Duration	No of Day	Duration	No of Day	Duration				Cameras
7	MC- 9	Mid-block	23.629874	90.558908	3	Saturday 7 am to Tuesday 7am	3	Saturday 7 am to Tuesday 7am	3	7 am to 11pm for each three days (Saturday to Monday)	Musapur Union	Kaikertek Bridge	Regional Road (Z1066)	2
8	MC- 10	Mid-block	23.653027	90.565556	3	Saturday 7 am to Tuesday 7am	3	Saturday 7 am to Tuesday 7am	3	7 am to 11pm for each three days (Saturday to Monday)	Musapur Union	Langalband Kali Mondir	Regional Road (Z1061)	2
9	MC- 11	Mid-block	23.642674	90.473463	3	Saturday 7 am to Tuesday 7am	3	Saturday 7 am to Tuesday 7am	3	7 am to 11pm for each three days (Saturday to Monday)	Fatullah Union	Shibu Market - Fatullah Road	Tertiary Road	2
1 0	MC- 12	Mid-block	23.706734	90.503009	3	Saturday 7 am to Tuesday 7am	3	Saturday 7 am to Tuesday 7am	3	7 am to 11pm for each three days (Saturday to Monday)	Ward No. 04	Demra	Regional Road (R110)	2
1 1	MC- 13	Mid-block	23.617791	90.521506	3	Saturday 7 am to Tuesday 7am	3	Saturday 7 am to Tuesday 7am	3	7 am to 11pm for each three days (Saturday to Monday)	Ward No. 22	Bandar Chitashal Road	Regional Road (R113)	2
1 2	MC- 14	Mid-block	23.62685	90.490829	3	Saturday 7 am to Tuesday 7am	3	Saturday 7 am to Tuesday 7am	3	7 am to 11pm for each three days (Saturday to Monday)	Ward No. 13	Masdair	Regional Road (R810)	2
1	MC- 15	Mid-block	23.60964	90.492439	3	Saturday 7 am to Tuesday 7am	3	Saturday 7 am to Tuesday 7am	3	7 am to 11pm for each three days	Ward No. 16	Mobarak Shah Road	Tertiary Road	2

Appendix

S	ID	Location	Latitude	Longitude		Duration	n of Sur	vey (Day)			Union/	Local	Road	Minimum
N		Types				СТС		RSI		PS	Ward	Address	Type	required Number of
					No of Day	Duration	No of Day	Duration	No of Day	Duration				Cameras
										(Saturday to Monday)				
1 4	MC- 16	Mid-block	23.615237	90.491644	3	Saturday 7 am to Tuesday 7am	3	Saturday 7 am to Tuesday 7am	3	7 am to 11pm for each three days (Saturday to Monday)	Ward No. 16	Deobhog	Tertiary Road	2
1 5	MC- 17	Mid-block	23.64888	90.504476	3	Saturday 7 am to Tuesday 7am	3	Saturday 7 am to Tuesday 7am	3	7 am to 11pm for each three days (Saturday to Monday)	Ward No. 08	Shaheb Bari Road	Tertiary Road	2
1 6	PC- 2	Mid-block	23.610897	90.502232					3	7 am to 11pm for each three days (Saturday to Monday)	Ward No. 15	Baburail Lake	Regional Road (Z1102)	2
1 7	PC- 3	Three leg intersection	23.616168	90.505388					3	7 am to 11pm for each three days (Saturday to Monday)	Ward No. 15	Taan Bazar	Regional Road (R810)	6

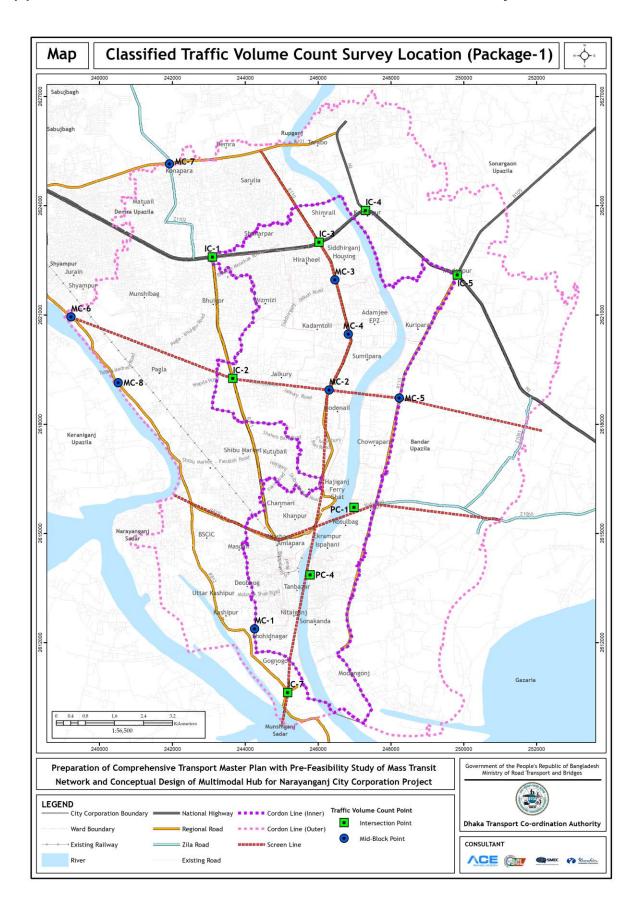
Appendix D Classified Traffic Count Survey (CTC) Count Sheet for Each Direction (sample)

	-	Na	rayang	janj (City Co	rpor	atio	n Co	mpr	ehe	nsive	Trans	port	Mas	terpl	an F	roje	ct	,	-					
				Cla	ssified	Dire	ctio	nal '	Traf	fic C	ount	Surve	y Dat	a SI	neet										
Date:		Intersed	ction/Ro	oad:								•						Sun	veyo	r Nar	ne:				
Day:		Approa	ch Nam	ie:														Sun	veyo	r ID:					
Count Hours	From_to_hrs	-																Wea	athei	r Cor	nditio	n			
Location Name																									
Location ID																		Sup	ervis	or					
Direction from				Dire to	ction													Sun	veyo	r					
								Mo	toriz	ed V	ehicl	es									on-Mehicle		zed IMV)		
	Time	Small open truck	Medium Truck	Large Truck	Container Trailer	Tanker/Tank Lorry	Tempo/Leguna/Maxi	AC Bus	Mini Bus	Staff Bus	Large Bus	School/College/University Bus	Car/ SUV	Taxi	Microbus	Jeep/ Pick-up	CNG/Mishuk	Auto	Motorcycle	Bicycle	Rickshaw	School Van	Rickshaw Van	Push Car (Thela Gari)	Others
Start	End	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
00:00	00:15																							<u> </u>	
00:15	00:30																							<u> </u>	
00:30	00:45																								
00:45	01:00																								
00:00	00:15																								
00:15	00:30																								
00:30	00:45																								
00:45	01:00																								
00:00	00:15			П																	ĺ				
00:15	00:30					l																			
00:30	00:45			H																					
00:45	01:00			Ħ																					
551.5	000			М		H																			

Appendix E Roadside Interview Survey (RSI) Survey Form

]	Roadside	Interview	(RSI)	Survey Form					
1. Name o	f surveyor			2. Wea	ther					
3. Date of	Survey			4. Day						
5. Survey	point			6. Surv	ey time					
	Trip Origin				Trij	p Destination				
7. Where	did you start this trip			8. Whe	re this trip wil	l end?				
Address (I	Road/Sector/Location	/ Upazila/	Zila)	Addres	s (Road/ Secto	r/Location/ U	pazila/ Zila)			
TAZ	ZID		_	TAZ ID						
When are	you returning to your	home	Within To	day	Within 3 Day	Within 7 Day	More than 7 days			
9. Type of	vehicle									
1	Pedes	trian		10	Large	bus/ Double [Decker bus			
2	Pedes	trian		11	4 WI	heel Drive/ Je	ep/ SUV			
3	Bicy	cle		12	Rickshaw					
4	Motor	cycle		13		Rickshaw V	an			
5	Ca	ır		14		School va	n			
6	Motorized 3 wheel/ (CNG/ Auto	Rickshaw	15		Cart				
7	Human hauler/ Leg			16	Light Truck/ Pickup/ Small cover van					
8	,	OAH/ Hiac	e	17	Me	edium Truck/	Tanker			
9				18		Heavy Truc	ck			
	ften do you make this	•		11. Trip	purpose					
1	Less than 1 time per n	nonth		origin	Purp	ose	Destination			
	1-3 times per month			1	Hor		1			
3	Once a week			2	Wo		2			
	2-5 times per week			3	Educa		3			
	Everyday		,	4	Leis		4			
	e Capacity(person)			5	Shop		5			
	e Occupancy (person)			6	Term		6			
	reight vehicle			7	Med		7			
	e capacity (tons)			8	Oth	ers	8			
15. Amou	nt of goods in the veh	icle (tons)								

Appendix F Pedestrian Count and Interview Survey Locations



Appendix G Pedestrian Interview Survey Form

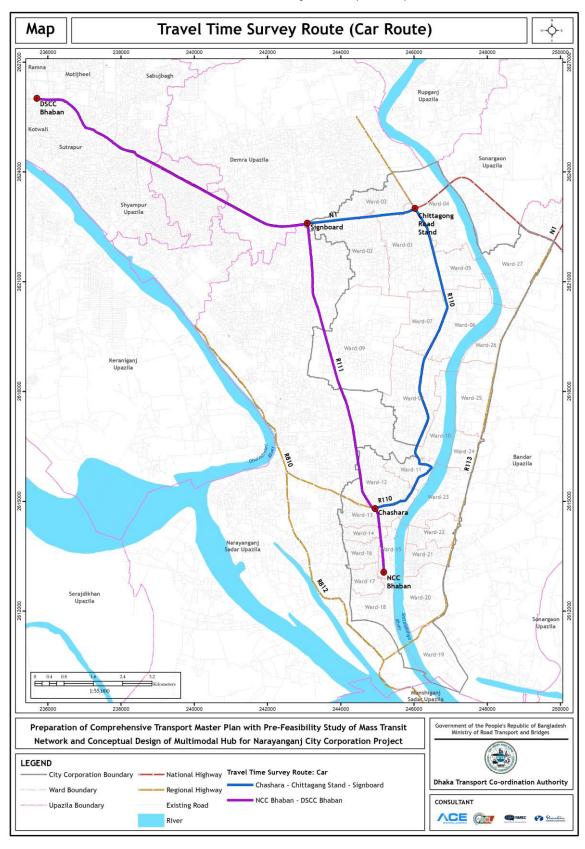
			Pedest	rian Interv	<mark>iew Sur</mark>	vey Form			
1. Name of	surveyor				2. Wea	ther			
3. Date of S	urvey				4. Day				
5. Survey p	oint				6. Surv	ey time			
		Trip Origin				Tri	p Destinat	tion	
7. Where d	id you star	t this trip			8. Whe	re this trip wil	l end?		
Address (R	oad/ Secto	r/Location/	Upazila/	Zila)	Addres	ss (Road/ Secto	or/Location	n/ Upazila/ Zila)	
		1							
9. Gender		2. Female	3. Others	S					
TAZ					TAZ ID				
10. Address	of work p	lace (Road/	Sector/L	ocation/ Up	azila/ Zi	la)			
11. Address	of resider	nce (Road/S	Sector/Lo	cation/ Upa	zila/ Zila	a)			
12. Age	ı	1					1		
0-2	3-6	7-10	11-20	21-30		31-40	41-50	51-60	
61-70	71-80	81-90	Greater	than 90					
	Disability				-	purpose			
	Physical D	Disbility			origin	Purp		Destination	
	Autism				1	Hor			1
		ess leading	to disabil	lity	2	Wo			2
	Visual Dis	· · · · · · · · · · · · · · · · · · ·			3				3
	Speech Di				4	Leis			4
		al Disability	1		5	Shop			5
	Hearing D	•			6	Term			6
-	Deaf-blin				7	Med			7
	Cerebral F				8	Oth	iers		8
	Multiple [Others	Jisability							
	ł	th No Disbi	lity						
		make this t	•						
		1 time per r	-						
		per month	11011111						
	Once a we								
	2-5 times								
	Everyday	PCI WCCK							
	Lvciyuay				1		I		

Appendix H Pedestrian Count sheet for Each Direction (sample)

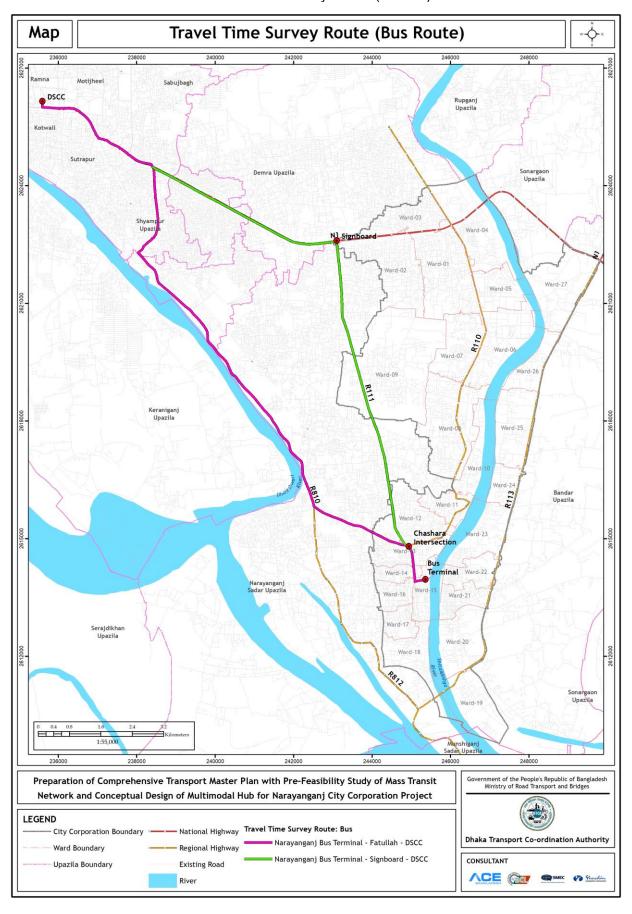
	Nara	yanganj City Corporation Co	omprehensive Trai	nsport Masterplan Pr	oject	
		Pedestrian C	ount Survey Data	Sheet		
Date:		Intersection/Road:			Surveyor	Name:
Day:		Approach Name:			Surveyor	ID:
Count Hours	From_to_hrs	•			Weather	Condition:
Location Name						
Location ID						Supervisor
Direction from		Direction to		Surveyor		
		Direction	1	D	irection 2	
	Time	D1-PD1	D1-PD2	D2-PD1		02- PD2
Start	End					
0:00	0:15					
0:15	0:30					
0:30	0:45					
0:45	1:00					
0:00	0:15					
0:15	0:30					
0:30	0:45					
0:45	1:00					
0:00	0:15					
0:15	0:30					
0:30	0:45					
0.45	1:00					

Appendix I Travel Time Survey Route

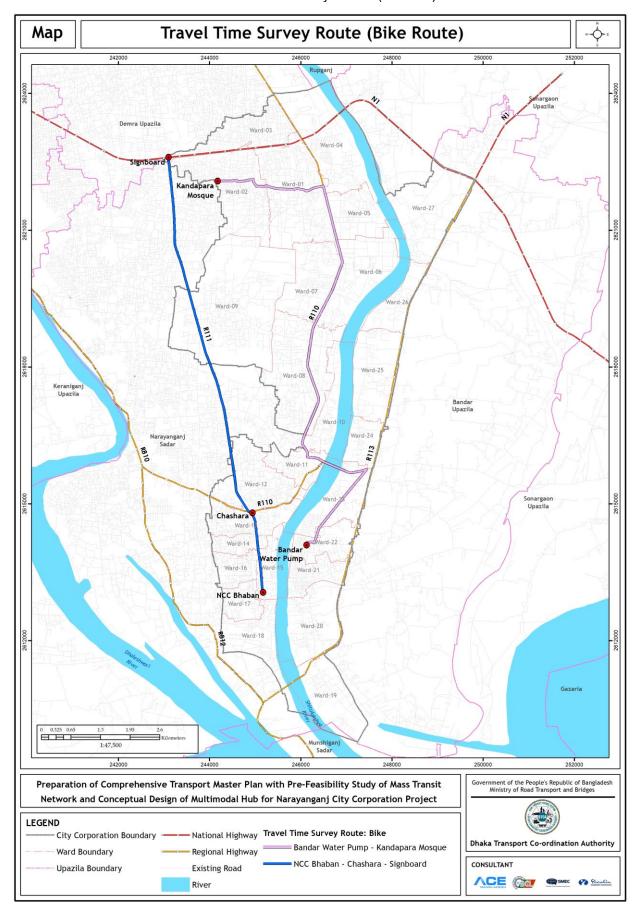
Travel Time Survey Route (for Car)



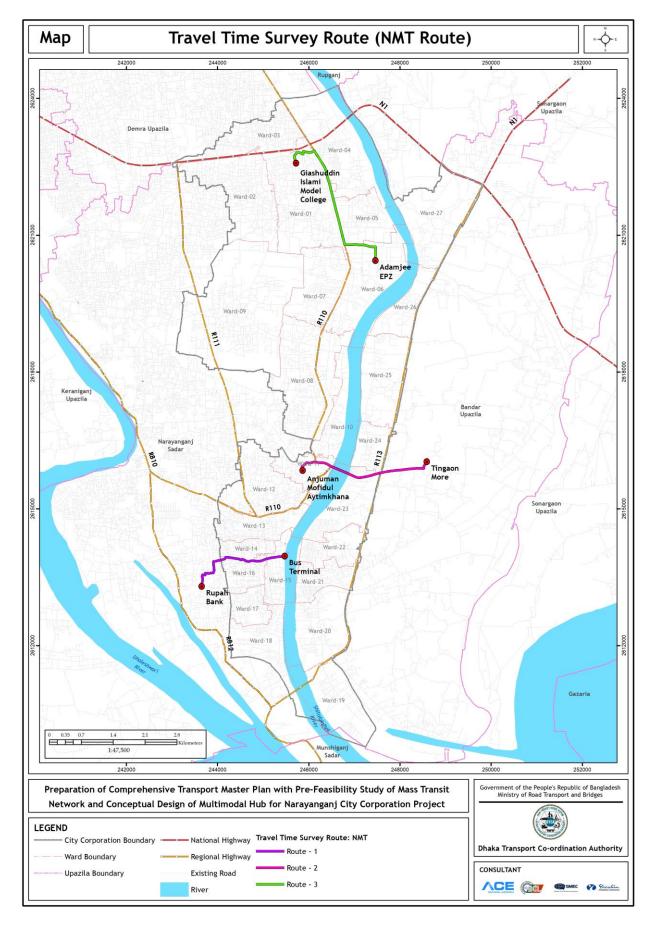
Travel Time Survey Route (for Bus)



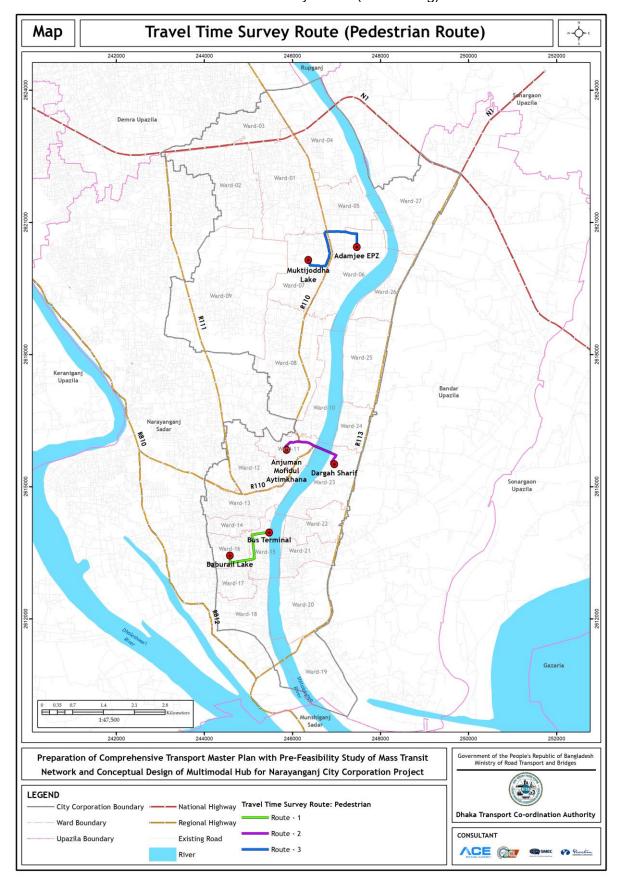
Travel Time Survey Route (for Bike)



Travel Time Survey Route (for Rickshaw)



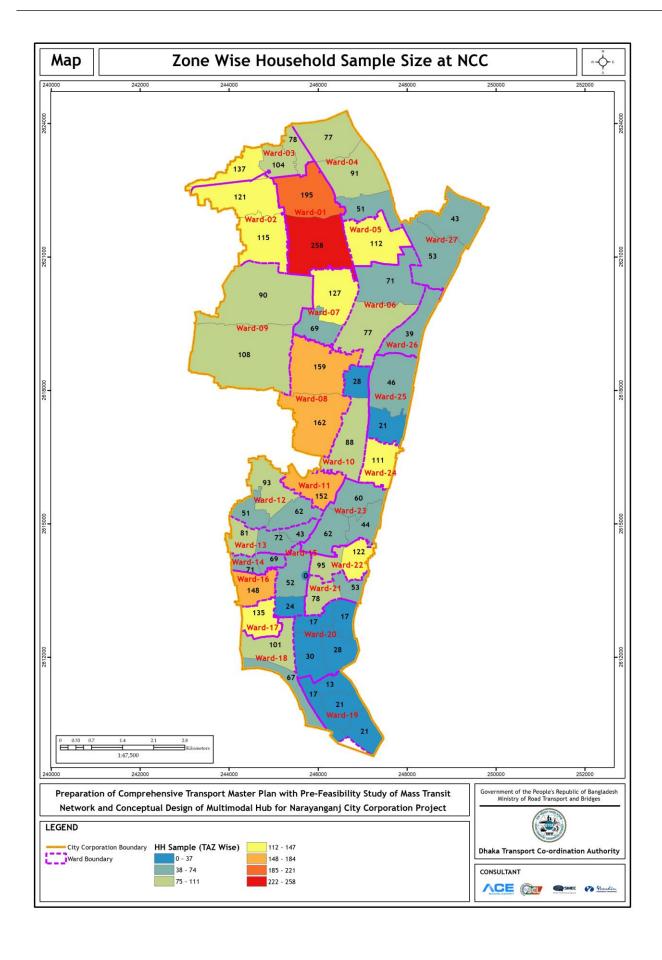
Travel Time Survey Route (for Walking)



Appendix J Sample Distribution of Household Interview Survey

Ward	NCC_TAZ	Area (sq.km)	Sample Size of HH
NOO W 1 04	1296	1.66	258
NCC_Ward-01	1297	1.26	195
NOO W 1 00	1293	1.24	121
NCC_Ward-02	1294	1.18	115
	1295	0.65	137
NCC_Ward-03	1298	0.49	104
	1299	0.37	78
	1300	1.27	91
NCC_Ward-04	1301	0.71	51
	1302	1.08	77
NCC_Ward-05	1303	1.26	112
	1304	1.46	77
NCC_Ward-06	1305	1.35	71
	1306	1.06	127
NCC_Ward-07	1307	0.57	69
	1312	1.51	159
NCC_Ward-08	1310	1.53	162
	1308	3.07	108
NCC_Ward-09	1309	2.57	90
	1313	1.22	88
NCC_Ward-10	1311	0.39	28
NCC_Ward-11	1362	0.78	152
	1358	0.83	93
NCC_Ward-12	1359	0.55	62
	1360	0.45	51
	1356	0.41	72
NCC_Ward-13	1320	0.46	81
1100_11aia 10	1357	0.24	43
	1355	0.23	71
NCC_Ward-14	1354	0.23	69
	1351	0.68	52
NCC_Ward-15	1352	0.30	24
NCC_Ward-16	1353	0.63	148
NCC_Ward-17	1350	0.61	135
	1341	0.86	
NCC_Ward-18	1342	0.57	101
	1343	0.54	67
	1344	0.53	21
NCC_Ward-19	1345	0.43	21
	1346	0.32	17
NCC_Ward-20	1347	0.37	13
INCO_VValu-20	.5.,		17_

Ward	NCC_TAZ	Area (sq.km)	Sample Size of HH
	1348	0.67	30
	1349	0.63	28
	1370	0.37	17
NOO Weel of	1368	0.49	78
NCC_Ward-21	1369	0.33	53
NICO Maril 00	1366	0.39	95
NCC_Ward-22	1367	0.50	122
	1363	0.70	60
NCC_Ward-23	1364	0.51	44
	1365	0.72	62
NCC_Ward-24	1398	0.73	111
NOO Weel of	1399	1.26	46
NCC_Ward-25	1401	0.58	21
NCC_Ward-26	1482	0.90	39
NOO W- 1 07	1492	1.31	53
NCC_Ward-27	1483	1.07	43



Appendix K Household Interview Survey Form

Consent Form

	•		s of sele		iseholds in t	•				e Narayanganj esent situation		ansport in N	,	
no risk anticip	oated by pa	rticipatin	g. Your re	esponse	to interview	questior	ns will be k	cept confid	ential. Su	elated information rvey staff will p data you shar information	rotect your	personal inf	ormation clo	osely, so
	all the qu	uestions	and trip	s are i	important to	o design	the tran			from the study ly, therefore,				
<u>Consent</u>														
Do you agree	to be inter	viewed?] No	_ Y	′es								
Name and Sig	gnature of t	he Hous	ehold He	ad: N	lame:				;	Signature:				

Form 1: Household Information Q1.1) Head of Household Name: _ Q1.6) HH Monthly Income (Total) 1. Less than Tk 10,000 4. Tk 30,000 - Tk 40,000 7. Tk 60,000 – Tk 80,000 Q1.2) Phone number: 2. Tk 10,000 – Tk 20,000 5. Tk 40,000 – Tk 50,000 8. Tk 80,000 – Tk 100,000 3. Tk 20,000 – Tk 30,000 9. More than Tk 100,000 6. Tk 50,000 - Tk 60,000 Q1.3) Residential Address: Q1.7) HH Monthly Expenditure (Total) District (Zilla): Exact location House No: Ward/ Union: 1. Less than Tk 10,000 4. Tk 30,000 - Tk 40,000 7. Tk 60,000 - Tk 80,000 ☐ Indicative location City Corporation/Pourashava: Coordinate: __ Road No/ Name: _ 2. Tk 10,000 - Tk 20,000 5. Tk 40,000 - Tk 50,000 8. Tk 80,000 - Tk 100,000 Landmark: Zone Code: Area name: 3. Tk 20,000 – Tk 30,000 6. Tk 50,000 - Tk 60,000 9. More than Tk 100,000 Q1.8) HH Monthly Expenditure for Transportation (Total) Q1.4) Housing Type 1. Less than Tk 1,000 7. Tk 6,000 - Tk 7,000 13. Tk 15,000 - Tk 17,500 4. Single storied building 7. Store combined housing 1. Individual duplex or triplex building 2. Tk 1,000 – Tk 2,000 3. Tk 2,000 – Tk 3,000 8. Tk 7,000 - Tk 8,000 14. Tk 17,500 – Tk 20,000 15. Tk 20,000 – Tk 25,000 2. Apartment type multi storied building 5. Tin shade House __XX___ floor for shop/ business 9. Tk 8,000 - Tk 9,000 __XX___ floor for housing 3. Self-made multi storied building 6. Student Dormitory 4. Tk 3,000 – Tk 4,000 10. Tk 9,000 - Tk 10,000 16. More than Tk 25,000 8. Others (specify) 5. Tk 4,000 – Tk 5,000 11. Tk 10,000 - Tk 12,500 Q1.5) House Ownership Status 6. Tk 5,000 - Tk 6,000 12. Tk 12,500 - Tk 15,000 1. Own property by Household 3. House or Room provided by Company working with 2. Rent 4. Others (specify) Q1.11) Have your household own any vehicles: Yes Q1.12) Number of vehicles owned by household Type of Vehicles and Fuel/ power Octane Petrol Diesel CNG/LNG Electricity Others NMT Private Car (Sedan) Microbus 3 Wheelers / CNG for private use Pick-up etc. Motorcycle, etc. Bicycle Others (specify) Q1.13) Total no. of Household Members: Form 2: Questions for all Household Members Employment, Educational 2. Banglalink 4. Robi

													p	
Q.	Member	Name	Age	Sex	Mobile	Mobile	Relationship	Employment,	Which vehicle	Type of Driver			and other social status	
No.	No.				No.	Operator	with Head of	Educational and	do you use?	License ID	Г	1. Male 2. Female	 1. Employment (including 	1. Airtel 2. Banglalink
						_	Household	other social status	(From Q1.11)	owned		3. Transgender (Hijra)	Employee/ Employer, Self-	☐ 3. GP ☐ 4. Robi
Q2.1												Type of Driver License ID owned	employed, Entrepreneur)	5. Teletalk
Q2.2											ΙГ	1. Non-Professional	2. Student (in any level)	6. Others
Q2.3												2. Professional 3. No License	3. Other social status	
Q2.4												Which vehicle do you use? (From	Relationship with	Head of Household
Q2.5												Q1.11)		
Q2.6											ΙГ	1. Private Car (Sedan)	1. Head of Household 2	. Wife/ Husband
Q2.7												2. Microbus 3. 4WD/ Jeep	☐ 3. Child	. Father/ Mother
Q2.8												4. 3 Wheelers / CNG for private use	5. Grandson/ Granddaughte	er
	more rows if	needed										5. Pick-up etc.	6. Parents in Law	
300	more rows n	needed.										6. Motorcycle, etc. 7. Bicycle	7. Grandfather/ Grandmoth	er/ Uncle/ Aunty
												8. Others (specify)	8. Brother/ Sister/ Nephew,	Cousin
													9. Housemaid/ Babysitter/ (Driver for home/ Security guard
													10. Others (specify)	

Surveyor No: Supervisor Name: Zone District City Corporation No: Dode Usperline Code	V Municipality Batch Sample/ HH Date: Union/War No.
Form 1: Household Information	
Q1.1) Head of Household Name: Q1.2) Phone number:	Q1.6) HH Monthly Income (Total) 1. Less than Tk 10,000
	Q1.11) Have your household own any vehicles: Yes No Q1.12) Number of vehicles owned by household Type of Vehicles and Fuel/ power Octane Petrol Diesel CNG/LNG Electricity Others NMT 1. Private Car (Sedan) Universely Universely <t< th=""></t<>
Form 2: Questions for all Household Members	Sex Employment, Educational Mobile Operator
Q. Member No. No. No. Age Sex Mobile No. Operator With Head of Household No. Operator Relationship with Head of Household No. Operator No. Operator No.	Type of Driver License ID owned 1. Male 2. Female 1. Employment (including 1. Airtel 2. Banglalink
Q2.5 Q2.6 Q2.7 Q2.8 ** add more rows if needed.	1. Private Car (Sedan) 1. Head of Household 2. Wife/ Husband 3. AWD/ Jeep 3. AWD/ Jeep 3. AWD/ Jeep 5. Pick-up etc. 6. Motorcycle, etc. 7. Bicycle 8. Others (specify) 8. Brother/ Sister/ Nephew/ Cousin 9. Housemaid/ Babysitter/ Driver for home/ Security guard 10. Others (specify)

Form 3: Questions for Individu	orm 3: Questions for Individual Household Members (This form will be repeated for every Individual Household Members)											
Status of the Household Member:	Employment/ Work: Fill the Form 3A	Stude	ent (in any level):	Fill the Form 3	B	Other social status	: Fill the Form 3C					
Form 3A: Employment/ Work												
Q3A.1) Member No. as per Form 2:						Q3A.11) Occupation 1. Professor, manager,	di	7. Technicia		·	13 Bublis	transport driver
Q3A.2) Do you work at home?	ent 4. Employee (Part time, Permai staff, Government) ent 5. Employee (Part time, Permai staff, Private)	8. E	elf-employed ntrepreneur		1 5	2. Industry owner, ret. 3. Expert (Physics, Che 4. Engineer, doctor, acpilot, etc. 5. Army/Policeman 6. Administration staff Q3A.12) Working hours in	ail owner, etc	8. Waitress 9. Vendor, si 10. Handym 11. Construi 12. Laborerhours	alesman, etc. an (carpenter, j. tion, station, po	ewelry) ort, warehouse [14. Private 15. Housel gardener, etc. 16. Farmer 17. Securit 19. Others	driver keeper, office boy, fisherman, etc. y guard (specify)
Q3A.4) Company / Institution Name	·				1 L	1. No Educational Att	tainment 3. Hi 4. Co	gh School ollege	5. Technica 6. Universi		Graduate Sch Others (speci	
	/ard/ Union: Dis	trict (Zilla):		t location		Q3A.14) Monthly Salary t 1. Less than Tk 10,00 2. Tk 10,000 – Tk 20, 3. Tk 20,000 – Tk 30,	00	000 – Tk 40,0 000 – Tk 50,0	00 🗌 8.TI	k 60,000 – Tk 80,00 k 80,000 – Tk 100,0 lore than Tk 100,00	000 want t	. Unknown/ Do not o answer
Area name: Li Q3A.7) Facility Type of Work Place 1. Residence or dormitory 2. Government or public office 3. Business office, company 4. Educational facility 5. Religious facility 6. Medical facility 7. Accommodation/ entertainment facility	Area name: Landmark: Zone Code: Q3A.7) Facility Type of Work Place 1. Residence or dormitory 2. Government or public office 3. Business office, company 4. Educational facility 10. Supermarket 11. Shopping mall or shopping 6. Medical facility 11. Shopping mall or shopping 12. Grocery market 13. Accommodation/ 14. Educational facility 15. Transport and communication facility 16. Supply and disposal facility 17. Recreational/sport facility 18. Park, natural environmental area, etc. 19. Agricultural, forestry and fishery areas 20. Construction site entertainment facility 13. Factory 21. Others (specify)					O3A.15) Commuting before COVID-19: Before COVID-19, how many days a week did you go to work place? 1. None (0 day) 3. 2 days 5. 4 days 7. 6 days 9. No fixed schedule, depending on week 2. 1 day 4. 3 days 6. 5 days 8. 7 days O3A.16) Present Situation on Work from Home: At present do you work from home? If you work from home, how many day a week do you work from home? 1. No 3. 2 days 5. 4 days 7. 6 days 9. No fixed schedule, depending on week 2. 1 day 4. 3 days 6. 5 days 8. 7 days 10. 1 cannot answer O3A.17) Company's Plan on Work from Home: Does your company/ institution have plan on "Work from Home" after COVID 19? 1. Yes (go to the next question) 2. No (go to the next section)				ome, how many days		
14. Warehouse, storage facility 33A.8] Industry of your work place 1. Agriculture, forestry and fishery 6. Banking insurance 11. Rental 12. Service industry 3. Manufacturing 8. Electricity, gas and water supply 13. Military and police 4. Construction 9. Central government services 14. Others (specify) 5. Transportation and communication 10. Local government services 13. Adj 14. Others (specify) 13. Adj 14. Others (specify) 13. Adj 14. Others (specify) 14. Others (specify) 14. Others (specify) 15. Item 15. I				Q3A.18) If Yes, how many days a week do employee will work from home?				ek do you want to				
	☐ 5. 301-500 ☐ 7. 1000+		-			2. 2 days	☐ 4. 4 days	☐ 6. 6 da	ys ∐ 8.Ido	o not know		
22 A 20) Vour profesence of mode	for commuting before covid 10	1 Walking	2 Bickshaw	2 Diougla	4 CN4	G 5. Motorcycle 6. T	Tompo/Logues	7 Car 9 1	Pus O Train	10 Bido Shar	o Conico	11 Others (Specif
	e for commuting before covid 19											

Q3A.20) Your preference of mode for commuting before covid 19	1. Walking	2. Rickshaw	3. Bicycle	4.CNG	5. Motorcycle	6. Tempo/Leguna	7. Car	8. Bus	9. Train	10. Ride Share Service	11. Others (Specify)
Q3A.21) Your preference of mode for commuting during covid 19	1. Walking	2. Rickshaw	3. Bi cycle	4.CNG	5. Motorcycle	6. Tempo/Leguna	7. Car	8. Bus	9. Train	10. Ride Share Service	11. Others (Specify)
Q3A.22) Your preference of mode for commuting after covid 19	1. Walking	2. Rickshaw	3. Bi cycle	4.CNG	5. Motorcycle	6. Tempo/Leguna	7. Car	8. Bus	9. Train	10. Ride Share Service	11. Others (Specify)

Form 3B: Student (in any level)	
Q3B.1) Member No. as per Form 2:	
Q38.2) School/ Other Educational Institute Name: Q38.3) School/ Other Educational Institute Location: House No:	Q38.6) Grade in School/ College: 1. Grade 1 and below 4. Grade 4 7. Grade 7 10. Grade 10 2. Grade 2 5. Grade 5 8. Grade 8 11. Grade 11 3. Grade 3 6. Grade 6 9. Grade 9 12. Grade 12 Q38.7) Class days in a week: Q38.8) Do you study from home? 1. Yes, 5 days a week 5. Yes, 1 days a week 2. Yes, 4 days a week 6. No, I have studied from before but now I go to school 3. Yes, 3 days a week 7. No, I have never studied from home 4. Yes, 2 days a week 8. Other
Form 3C: Other Social Status	
Q3C.1) Member No. as per form 2:	Q3C.3) Educational Attainment: 1. No Educational Attainment 3. High School 5. Technical College 7. Graduate School
Q3C.2) Social Status: 1. House wife/ husband 2. Pension 3. Unemployed 4. Housemaid 5. Others (specify)	2. Primary School 4. College 6. University 8. Others (specify)

Form 4: Trip Information (This form will be repeated for every Individual Household Members and for their every trip in the day)

Q4) Member	No. as per Form 2:						Q4.9) Address of the Destination (Z)/ Ending point
Q4.1) Date o	f the selected day of the	week:	(DD-	MM-YYYY)			House No: Ward/ Union: District (Zilla): Exact location Road No/ Name: City Corporation/Pourashava: Coordinate: Indicative location Area name: Landmark: Zone Code:
Q4.2) Selecte	ed day of the week:	1. Monday	2. Tues	day 🔲 :	3. Wednesday		Area name Landmark Zone code
Repeat Q4.3	Q4.18 for every trip and	every member of the day					Q4.10.1) Destination Location Type: 1. Home 2. Work Place 3. Education Place 4. Other
Q4.3) Trip No	o.: 🗌 1 🔲 2 🔲 3 🔲 4	5 6 7 8	9:	10 🗌 11 🔲 12 [13 14 11	5 🗌 16	Q4.10.2) Type of Facility (Choose from the Table F4.1TAB):
Q4.4) Purpos	e of the trip: on Place: School, College, Unit	versity etc					Q4.11) Reaching Time: : (HH:MM)
Non Ho Non Ho Non Ho T. Home	o Others: Others to Home: Others: From one Business Loo For students: from priv From Business Location me-based Business: Work Place to Work Place 3. H	hers means places visit for she ation (Other than work place) ate tutor's place (Other than s n to shopping, leisure, enterta ce to Other Business Location: dome to Education Place iducation Place to Home	to another school) to a inment, pro	Business Location nother Location yer etc. ome to Others [spital, prayer etc.); 7. Non Home-ba 8. Non Home-b		Q4.12) Trip Distance: KM Automatic Selection (by Google map) Q4.13) Travel Time (Car): minutes Automatic Selection (by Google map) Q4.14) Travel Cost (Car): tk Cost (input in back office): Fuel + Parking + Toll Q4.15) Travel Time (MC): minutes Automatic Selection (by Google map) Q4.16) Travel Cost (MC): tk Cost (input in back office): Fuel + Parking + Toll Q4.17) Travel Time (Bus): minutes Automatic Selection (by Google map) Q4.18) Travel Cost (Bus): tk input in back office using BRTA Fare
Q4.5) Address of the Origin (A)/ Starting point House No:						Q4.12) What is the main mode? (Select from Table F4.2TAB)	
							Table F4.1TAB
Q4.6.2) Type	of Facility (Choose from the	e Table F4.1TAB):					a. Residence or dormitory i. Restaurant p. Transport and communication facility
Q4.7) Startin	g Time: 🔲 : 🔲 (HH:/	мм)					□ b. Educational facility □ j. Retail, traditional market □ q. Supply and disposal facility □ c. Government or public office □ k. Supermarket □ r. Recreational/sport facility □ d. Business office, company □ l. Shopping mall or shopping □ s. Park, natural environmental area, etc.
Q4.8) If you t	ransferred to another me	ode of transport during tl	ne trip, sta	ate all the mode yo	u changed to and	the place.	e. Religious facility plaza
Transfer point	Address	Modes (Choose from the Table F4.2TAB)	Cost (BDT)	(a) Waiting Time (minutes)	(b) In vehicle Time (minutes)	Travel Time (minutes): (a+b)	☐ f. Medical facility ☐ m. Grocery market ☐ u. Construction site ☐ g. Hotel/ Accommodation ☐ n. Factory ☐ v. Others (specify) ☐ h. Entertainment facility ☐ o. Warehouse, storage facility
В	Landmark/Coordinate						
С	Landmark/Coordinate						Table F4.2TAB
D	Landmark/Coordinate Landmark/Coordinate					 	□ 1. Walking □ 6. Motorcycle (ride sharing, □ 13. Private car /Microbus/ □ 18. School Van □ 24. Boat/
E F	Landmark/Coordinate						2. Bicycle i.e., UBER, Pathao, etc.) Jeep etc. (drive by driver) 19. School/ Engine Boat
G	Landmark/Coordinate					 	3. Rickshaw 7. 3-wheeler CNG (shared) 14. Taxi/ Private car Collage/ University 25. Ferry
	Landmark/Coordinate					\vdash	4. Motorcycle 8. 3-wheeler CNG (reserved) /Microbus/ Jeep etc. (ride Bus 26. Metro R (self-driven) 9. 3-wheeler Auto (shared) sharing, i.e., UBER, Pathao, 20. Staff Vehicles 27. Train
	Landmark/Coordinate						S. Motorcycle 10. 3-wheeler Auto (reserved) sharing, i.e., oben, rathab, 20. Staff Venicles 27. Halfi
	Landmark/Coordinate						(drive by friends
	Total	Count Mode	Total Cost	Total Waiting Time	Total in Vehicle Time	Total Travel Time	and family) Jeep etc. (self-driven)
							family)

Appendix L Establishment Survey Location

Sector	Name	Location		
	Nabigonj Bazar	Village: Nabigonj, P.O: Nabigonj, Pouroshova / Thana / Union: Kadam Rasul		
	Godnail Bazar	Village: Godnail, P.O: Laksminarayan, Pouroshova / Thana / Union: Godnnail		
	Laksmi Narayan Mill Bazar	Village: Laksminarayan, P.O: Laksminarayan, Pouroshova / Thana / Union: Godnnail		
	Vai Vai Nursery	Abdul Hamid Road, New, Chashara, Narayanganj 1400, Bangladesh		
Agriculture	Jubayer Agro farm and hetchry	Kashipur, Fatullah, Eid Gah Road, Narayanganj		
	Master Dairy Farm	Ekrampur, Ispahani Ghat, Bandar		
	Green Bell Dairy Ranch	East Isdair, Narayanganj Hwy		
	Amana Cattle Farm	Narayanganj Iron Market Bus Stop, Narayanganj		
	Bamboo Market/ Basher Hat/ Bash Hati	Sonakanda Ghat, Bandar		
	S N Timber & Saw Mill	N1, Main Road, Sanarpar, Narayanganj		
	M/S Tania Enterprise	Sirajuddoula Road		
	M/S Robin Traders	26 no B Das Road, Folpotti		
	Fruit Wholesale Market	Terminal Area		
	Agri Aqua BD	Shibu Market-Fatullah Road		
	M/S Sharif Enterprise	Mizmizi Taltola Clb Rd		
	Poshu Pakhir Khabar Ghor	Pouro Digu Bazar, Shop no- 137, 58, 89		
	Digbabu Holesale Vegetable Market	79 B B Ukilpara		
Wholesale and retail	M/S Kalam Traders	Pagla link Road Delpara-Pagla link road, Delpara Bazar road.		
	Kismat Seed Store	2 no Mir Jumla Road		
	Jsr Super Shop	House-2, Block-C, Ward-2 Mouchak Rd, 1430		
	Metro Super Shop	Kandapara Masjid Rd		
	Apon Bazar Super Shop	245, 1 Ali Ahmed Chunka Road		
	Padma Grocery	Shop no: 8, 2th Floor, Padma Center		
	Swapno	Solimullah Road Mosque, President Road		
	M/S Tutul Store	34/35 Digu Babu Bazar Road		
	Best Buy	148 B B Road		
	M/S Motin Furniture	113 B B Road		

Sector	Name	Location		
	M S Electronics	152 B B Road		
	Bonoful and Co.	B B Road		
	Realme Official Showroom	Amiz Bhaban		
	Exquire Electronics Limited	B B Road, Narayanganj Club Market		
	Nabiha Confectionary	Kalir Bazar, Nabab Sirajuddoula Road		
	Confectionary Corner	23 No., Aziz Mansion, Sahid Suhrwardi Sarak		
	Chittagong Bekery	4 Siraj Uddoula Road		
	Labiba Door	Army Market, Chashara		
	New Lukas Battery and Tair House	Army Market, Chashara		
	Ashirbad Mistanno Vandar	B B Road, Ukil Para		
	Tasty Treat	Shop no-103, Al Joynal Trade Center, Chashara, 1400		
	Samsung Electra	S.M Tower (1 Floor, Shiddhirganj - Adamjee Road		
	Rayan CNG Station	Demra- Narayanganj Road		
	Rana CNG Pump	N 1,Mouchak bus stand		
	Shahbudding Filling Station	Shibu Market		
	Samad Lpg pump	Dhaka-Narayanganj Road		
	M/S Jonaki Filling Station	Mouchak to Hazi Chan Mia Rd		
	Taz LPG Filling & Conversion Centre	Fatullah Stadium Bus Stoppage		
	Mass CNG Works Ltd.	Dhaka -Narayanganj link Road		
	Firoz Filling Station	Dhaka -Narayanganj link Road		
	M/S Ashraf Ali & Sons Filling Station	Adamjee Road		
	Prantik Service Station	B B road		
	Hazi Amiz Uddin & Sons Filling Station	Painadi Notun Moholla		
	M/S Robin Enterprise	26 no B Das Road, Folpotti		
	I. T. Zone Computer and training Center	Nazu Market(2nd Floor), Shanarpar		
	Ideal Computer Sales and Service Center	Shop No-12, Level 4, Kasshaf Shopping Center, Chittagong Road		
	HEAVEN COMPUTER	194 B. B. ROAD, SHOMOBAY NEW MARKET (2ND FLR)		
	HATIL Furniture	Painadi (Opposite Madani Nagar Madrasa, Chittagong Road		
	HI-TECH Furniture	H.R Complex, Shostapur, Dhaka, Link Road		
	Gloria The Beaker	Chashara More, NCC		
	Tokiyo Electronics	Mansur Plaza, 4No. Sonaton Pal Lane		

Sector	Name	Location			
	GLOBAL BRAND PVT LTD	Samobay New Market			
	Boi Biponi	DIT Market Road			
	Sahittomala	1/4 DIT Market			
	Ima Gift Corner	154, Sayam Plaza, B B Road, Balur Math			
	1 to 99	Kalir Bazar, Hasan Jamal Super Market, A C Dhar Road			
	Sweety Pushpaloy	B B Road, Ukil Para			
	Sughonda Pushpo Bhandar	126, Mojid Super Market, Beside Dhaka Bank			
	Lucky Electronics	Shop-16, Club Market, 95 B B Road			
	Hashem Sound System	23, Adamjee Bus Stand, E.P.Z, 1430			
	Hoby Birds and Fish House	Chashara Biswa Road, West Of Army Market			
	Fish Palace	7, Chashara Biswa Road, West Of Army Market			
	Sea World and Animal Shop	Dhaka-Narayanganj Link Road			
	Narayanganj Aqua Zone	Hira community center			
	Birds house	179 no Link Rd			
	Regal Furniture	33 Nawab Salimullah Road, Don Chamber Rd			
	Aarong	136 Bangobandhu Rd, Almas Point, 59 B E Road			
	Hall Mark Gift Shop	5 B B Road			
	Bismillah Rice Store	Rahim Market Road			
	Sotota Rice Agency	16 B B Road			
	Sotota Rice Agency	Lamapara, Fatullah			
	M/S Lamia Traders	Ali Ahmad Chunka Sarak			
	Rabbi and Sowad Store	Ali Ahmad Chunka Sarak			
	Janata Hardware Store	Ali Ahmad Chunka Sarak			
	Xiaomi Showroom	B B Road, Ukil Para			
	WALTON plaza	Reliance Tower, 1/3 Sher E Bangla Sharak			
	Sara Electronics	23 Shaheed Suhrawardy road			
	M/S Amin Mechnaries	No. 95, Sonar Bangla Market, Banglabandhu Road			
	M/S Khalil Ullah Varieties Store	West Daovog, Fatullah			
	Meena Bazar	B B road			
	Adi Adarsha Mistanno Bhandar	Kalir Bazar			
	Selim Confectionary	A C Dhar Road Kalir Bazar			
	Hosenia Store	A C Dhar Road Kalir Bazar			
	Vai Vai Traders	A C Dhar Road Kalir Bazar			
	Shirin Pharmacy	Nabab Sirajuddoula Road			

Sector	Name	Location			
	Bangladesh Pharmacy	Chashara			
	Siyam Pharmacy	Mosjid Road Jamtola			
	Family Parmacy	4 no DIT			
	M/S Jahan Traders	Shop No. 18, S. S Tower, 30/14, Loyal Tanl Road, Thana Pukur Par			
	N traders	Ali Ahmad Chunka Sarak			
	Housing Super Shop	Siddhirganj Housing Road			
	SHABED ALI SPINNING MILLS LTD	BENIARCHAR, DUPTARA, ARAIHAZAR, NARAYANGANJ.			
	Raya Spinning Mills Ltd.	NAGARPARA, DUPTARA, ARAIHAZAR, NARAYANGANJ			
	G N Cotton Spinning Mills	2nd Floor, 37 S M Maleh Rd			
	Hajee Hashem Spinning Mills Ltd.	Hajee Hashem Trade Center, 55/A, S. M. Maleh Road			
	Jalal Ahmed Spinning Mills LTD.	Post Office Road, Lalpur, Fatullah			
	Narayanganj Salt Industries	3no old bank road			
	Asia Industries Limited	Nandalalpur Road			
	Suad Garments Industries Ltd	EPZ Area			
	Best Steel Industries	Near Pagla Railway Station			
	Barnali Textile and Printing Industries	Chowdhury Bari to LNC mills			
Manufacturing	Best Tycoon Enterprise Ltd	Dhaka City Bypass			
Manufacturing	Model The Capitals Industries	Talla Road, Khanpur			
	Papyrus Chemical Industries Ltd.	Nandalalpur I/A, Pagla, Kutubpur, Fatullah			
	Delta Oil Refinery Ltd	Delta Agro Food Industries Area			
	ADISI APPARELS	341, Canel Road, Godenail, Dhanakunda Besides Chairman Office), Siddirganj			
	Zisan elastic factory	Advance Knitting, Lalkha More Rd			
	Knit Garden	Hossain & Co Road			
	UHM Limited	Plot 240-243 & 255 AEPZ, Siddhirganj			
	Molla Salt Factory	Dharmaganj, Enayetnagar, Fatulla			
	Seven Horse Cement Factory	Shumil Para, Siddhirganj, Housing Road			
	Merina Apparels Limited	Dhaka-Narayanganj Highwway			
	AL-MOQUADDIM STEEL MILLS LTD.	Nondolalpur railline			
	Shah Fatah Ullah Steel & Re-Rolling Mills Ltd.	Nondolalpur			

Sector	Name	Location
	Steeltech, Sanjida Steel House	Bismillah Market-2, Afaznagar, Police Line School (On the Opposite side Loha Market
	Delta Agro Food Industries LTD	Gorosthan Road
	Stareon Group	Siddirganj, Narayanganj, Bangladesh
	Rupashi Group of Industries Ltd.	Rupashi Rd, Narayanganj
	Universal Menswear Ltd.	Adamjee EPZ
	Sharija Oil Refinery Limited	Dhaka-Narayanganj Highway
	Binimoy Steel & Re-Rolling Mills Ltd	Kutubpur, Pagla, P.S: Fatullah
	S.K Steel & Re-Rolling Mills Ltd.	Wapda, Nandalalpur-Jalkury Rd, 1421
	Pioneer Steel Re Rolling Mills Ltd	Industrail area , 35 Dhaka - Narayanganj Road
	ACI PURE FLOUR LIMITED	Bandar
	Bashundhara Industrial Complex Ltd	Bandar, narayanganj
	NOWSHIN AGRO & FROZEN FOOD PROCESSOR	KUTUBPUR, Bazar Road, Kanchpur
	Elson Food Faztory	Ptot no. A-13, Road no. 4, BSCIC Industrial Area
	Rupshi Seed Crushing Ind. Ltd	North Rupshi, Rupganj, Narayanganj,
	Gazi Auto Tyres Factory	Dhaka-Sylhet Highaway
	DISNEY SWEATER LTD.	Borpa, Rupgong, Narayongong
Construction	PYRAMID CONSTRUCTION AND CONSULTANT	Nimaikashari Bazar Mosjid Road, Amtala, Siddhirganj, Narayanganj
	NDE Ready Mix Concrete Unit-10	Aliganj, Fatullah, Narayanganj
Electricity, Gas, Steam and Air Conditioning Supply	Titas Gas Distribution Company Limited	Jatramura,Rupgonj,Narayangonj, Dhaka - Sylhet Hwy
Water Supply, Sewerage, Waste Management and Remediation Activities	Adamjee EPZ Water Treatment Plant	Shiddhirganj - Narayanganj Road, Siddhirganj
	Hoque Cold store	Kutubpur, Kachpur, Narayanganj
T	Adarsha Cold Storage	Kutubpur, Kachpur, Narayanganj
Transportation and Storage	Shimrail Pouro Truck Terminal	Chittagong Road, Siddhirganj
	M.S.I CARGO SERVICE	hmed Supermarket, Chittagong Road, Siddhirganj

Sector	Name	Location		
	Sundarban Courier Service (Pvt.) LTD.	Sibu Market - Fatulla Rd, Narayanganj, Bangladesh		
	Sonargaon Royal Resort	Sonargaon Rd, Sonargaon 1440		
	PizzaBurg Narayanganj	Sahera Zaman Emporium, Balur Math Nary, 1400		
	SkyFly Hotel & Restaurant	218, 1 Hirajheel R/A Rd, Narayanganj		
	Bay Rose Gourmet Restaurant	56 B B Rd Ukil Para, Narayanganj 1400		
	Green Palanna Restaurant & party Center	4th, 1 Alam Khan Lane, Narayanganj		
	Palanna Chinese Restaurant.	Narayanganj Club Market, Bangabandhu Road, Narayanganj 1400		
	51 WEST Restaurant	51 K C Nag Rd, Narayanganj		
	Banquet Chinese Restaurant	151 Bangabandhu Sarak, sharif super market, Narayanganj 1400		
	The Grand Hall Restaurant & Convention	231/7 Bangabandhu Sarak, Chashara Hasnat Square (3rd/4th/5th Floor, Narayanganj 1400		
	New China Junction Restaurant	Level 3, Sayam Plaza, 154, Bangabandhu Road, Narayanganj 1400		
	Vooter Bari Restaurant	Paradise castle (3rd 4 th floor, B B Road, Balur Math, Narayanganj 1400		
Accommodation and	The Dining Lounge Narayanganj	MD Square, Bhasha Shoinik Road, Balurmat, Narayanganj		
Food Service Activities	Kacchi Bhai - Narayanganj	Monir Tower, Balur Math, Narayanganj 1400		
	Crown buffet restaurant and party centre	MD Square, Bhasha Shoinik Road, Balurmat, Narayanganj		
	Tittle-Tattle Restaurant & Juice Parlor	Mosjid Marketl, Allama Iqbal Rd, Narayanganj		
	Salt & Pepper	Allama Iqbal Rd, Narayanganj 1400		
	Mela Food Village	46/2, Abdul Hamid Road, Jamtola New, Narayanganj 1400		
	Sonargaon Restaurant	Narayanganj Highway, Pagla Station, Narayanganj		
	Bash Bari Restaurant & Mini Chinese	Paschim Para, Narayanganj		
	Big Belly Restaurant	Jamtola, Narayanganj		
	Chabaw	Shahid Sabbir Alam Khandakar Road, Narayanganj 1400		
	Bake n' Beans Narayanganj	Shahid Sabbir Alam Khandakar Road, Narayanganj 1400		
	Maura Hotel	Kalir Bazar, Station Road, Narayanganj		
	Fuoco update Narayangonj	Bangabandhu Road, Narayanganj 1400		
	Gloria The Baker	117 Bangabadhu Rd Ukil Para, Narayanganj 1400		

Sector	Name	Location		
	Sundarban Restaurant	Bhai Bhai Bhuiyan Super Market, Bhuigar Bus Stand		
	The Spice Zone	Kazi Shahjahan Market, Dhaka-Narayanganj Hwy, Aliganj 1421		
	Mary Anderson Floating Restaurant & Bar	Dhaka-Narayanganj Hwy, Aliganj 1421		
	The Leaf Lounge	Police Lines Road, Fatullah		
	Sotota Chinese And Restaurant	Demra, Tarabo		
	Love lounge restaurant	Bazar Main Road, Tarabo		
Mining and Quarrying	Super Oil Refinery Ltd.	N1Shimtail, Shiddirgonj, N1, Bangladesh		
Financial and Insurance Activities	IFIC Bank Limited	66/1 , 1st and 2nd Floor, Bangabandhu Sarak, Narayanganj 1400		
	Narayanganj High School and College	Nawab Sirajdullah Rd, Narayanganj 1400		
	Govt. Kadam Rasul College	Bandar, Narayanganj		
Education	ABC International School	Dhaka - Narayanganj Rd, Narayanganj, Bangladesh		
Ladoution	Cambrian School & College	Zila Parishad, Notun Court Narayanganj, 1420, Bangladesh		
	Narayanganj Ideal School	KB Saha Rd, Narayanganj, Bangladesh		
	Government Murapara College	Murapara Jamidar Bari, College Main Road, Murapara, Bangladesh		
Information and Communication activities	Radio Narayanganj	DC Office, Narayanganj 1400, Bangladesh		
	Narayanganj 300 Bed Hospital	Hospital Rd, Narayanganj		
Human Health and Social Work Activities	Health Resort Hospital	Bangabandhu Rd, Balur Math, Narayanganj		
	Bangladesh Red Crescent Society, Narayanganj unit	Uttar Chowrasta, Chashara, Narayanganj		
Real Estate Activities	Reliance housing Ltd.	Shamabay New Market, 259 B B Road,Balur Math, Narayanganj 1400, Bangladesh		
	Technical Training Center, Narayanganj	Dhaka - Narayanganj Rd, Narayanganj, Bangladesh		
Professional, Scientific and Technical Activities	Siddhirganj Computer Training Center (SCTC)	Beside Pubali Bank & Mercantile Bank (2nd Floor), Siddhirganj		
	Danube Electrical Solution	Ali Ahamed Chunka Rd, Narayanganj 1400, Bangladesh		
Public Administration and Defense, Compulsory Social Security	Kanchpur Highway Police Station	N1, Kanchpur, Narayanganj, Bangladesh		
	Ambulance Service Emergency Narayanganj	DC Office New Court Bus Stop, Dhaka - Narayanganj Rd, Narayanganj, Bangladesh		

Sector	Name	Location
Administrative and Support Service	Spark Tours & Travels	2nd Floor, Nayan, Super Market, 66/67 Bangabandhu Road, Narayanganj
Activities	Nexus IT	Dowlassor Candrio Jame moshjid Road, London Market, Narayanganj
Arts, Entertainment and Recreation	Narayanganj Club Ltd	95 Bangabandhu Road, Narayanganj 1400, Bangladesh
	Ovi Computer	Room No: 187, 3rd Floor, Shomobay New Market, 194 President Rd, Narayanganj 1430
	M/S Modern Electric & Refrigeration	Army Market, Narayanganj 1400
	realme Exclusive Service Center	Shop No 711, Level 07, Fazar Ali Trade Center, Bangobondhu Rd, 02 Railgate, Narayanganj
	Xiaomi Products - Mobile repair shop	Narayanganj Shop No: 507, Fazar Ali Trader Center (4th Floor), 78 Bangabandhu Road, 2 No Rail Gate, Narayanganj
	Fridge Repair.com	DIGU BABUR BAZAR, Narayanganj
	Bikrompur Refrigerator and electronics	Ali ahmed Chunka Road, Narayanganj
	Ac servicing center	Narayanganj, Chashara, Dhaka
	Gaosiya Refrigeration Centre	Koborstan, Narayanganj Hwy, Narayanganj,
	Riyad Refrigeration	138 no mojid, Narayanganj
Other Service	The Decco World	Dhaka - Narayanganj Rd, Opposite of Kadam Rasul Digital Lab & Consultation Center, Bandar, Narayanganj
Activities	LETHAL TECH	209, Sohail Super Market BB Road, Narayanganj
	New Friends Electronics	First floor, 84 Bangabandhu road, Narayanganj
	Spares Sourcing Hub	2nd Floor, Somobay Market, President Rd, Narayanganj 1430, Bangladesh
	Nahar Technology	Grand Plaza Shopping Mall, Mogbazar Warless, Dhaka, Bangladesh
	Chair & Care House	Hazi K Ali, Siddique Bazar, Dhaka 1204, Bangladesh
	Shohel Steel House	Kandapara Mashjid Road, Siddhirganj, Narayanganj
	Khalek Electric & Machineries	Stadium, Link Rd, Narayanganj 1421, Bangladesh
	Maa Electric Works	A K Khan Super Market, 54 A C Dhar Rd, Narayanganj
	The Mou Jewelers	44 A C Dhar Rd, Narayanganj 1400, Bangladesh
	The Pal and Son jwellers	Kader Bhaban, 51, A C Dhar Rd, Narayanganj 1400, Bangladesh

Sector	Name	Location					
	Ilme Jewellers	Delpara College road Narayanganj Sadar, 1421, Bangladesh					
	Sunny Mobile Servicing And Training Centre	Habib Shopping Complex, Narayanganj, Bangladesh					
	GM FIX Mobile Tanning And Service	S M Maleh Rd, Narayanganj, Bangladesh					
	New master telecom	Narayanganj 1 no railgate, Narayanganj 1400, Bangladesh					
	Rafique Mobile servicing	Banga Bandhu Road, Chashara, Narayanganj					
	Robi Airtel Customer Care	Banglalink Center, Shop 16, 17 Midtown Shopping, House 79, Bb Road, 2 Railgate Narayangonj Sadar					
	Banglalink Customer Care Center	Shop No. 82/1, 1st Floor, Bikrampur Plaza, Jurain Railgate, Dhaka 1204, Bangladesh					
	Mayer Dowa Electronics And Sound System	Shop No.1, 33, 34, 35/1, Haji Rowshan Ara Market, Patuatoly, Dhaka 1100, Bangladesh					
	Khurshid Sound System	2, Shukkur Super Market, 1430, Bangladesh					
	Muzadded Mike & Sound System	West Box Nagar, Sarulia, Dhaka 1361, Bangladesh					
	Tusher Sound System	Momenbag Sahi Jame Moshjid Rd, Demra					
	Gazi Steel King	Mouchak, Osman goni raod, Bangladesh					
	Samsung Service Point	College Road Moddho Para Rd, Narayanganj, Bangladesh					

Appendix M Establishment Survey Form

Survey Surveyo							<u>D</u>	<u>ate:</u>								
			<u>mation</u>				0	fficial nl	hone no	··						
							<u></u>	Official phone no:								
			<u>formati</u>				. N	Number of branches:								
								:								
									-							
-							-	<u>District:</u> <u>Longitude:</u>								
Activity							=	origitad	<u></u>							
							<u>P</u>	roducts	(Type)	<u>:</u>						
Raw ma	ateria	ls usa	age (Tor	n per day	<u>√</u>):		<u>F</u>	Producti	on (Tor	per da	<u>y):</u>					
Type of	Esta	blist	nment (Compar	ny/Facto	ry/Indus	try)									
Mark	SI. No.	Fre	eight-inte	ensive s	ectors		Mark	SI. No.	Servic	e intens	sive sec	tors				
	F1	Ag	riculture					S1	Information & communication activities							
	F2	Ga	rments	and Mar	nufacturi	ng		S2	Financial and insurance activities							
	F3	_	olesale					S3	Real estate activities							
	F4		tail trac	le and	repair o	of motor		S4	Professional, scientific, and technical activities							
	F5	_		and stor	age			S5	Administrative and support service							
	F6	Δο	commod	lation ar	nd food s	ervices		S6	activities Public administration and defense							
	F7			on Mate		iei vices		S7	Education							
	F8	_		l quarryi				S8	Human health and social work							
	F9	Ele	ctricity,	gas,	stear	m, air		S9	activiti Arts a	ies nd Ente	rtainme	nt				
		cor	nditionin	g supply	/				0.1							
	F10		iter suj inageme		ewerage	, waste		S10	Other							
	F11				nsport S	ervices										
Month		of														
activity	:	<u> </u>	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
				1	1	<u>ı </u>			1	1	1	1	1	<u> </u>		
Land o	wn ty	pe:														
Own																
Rent																

Plot (sq. m)	Floor (sq. m)	Storage (sq. m)	
No. of shifts	Working hours (in each shift)	No. of employees	
Any other information (Remarks)			

Number of vehicles:

Vehicle Type	Owned	Hired	Vehicle Type	Owned	Hired
Rickshaw/ Rickshaw Van			3 Axle Truck		
Motorized 3 - Wheeler/ CNG/ Mishuk/			4 Axle Truck		
Auto					
Utility Vehicle/4-Wheel Drive/SUV			5 Axle Truck		
Human Haulier/ Leguna/ Tempo			6 Axle Truck		
Small Goods Vehicle/ Pick-up/ Covered			7 Axle Truck		
Van					
2 Axle Truck			Other		

List all shipment details for at least 3 years (use multiple copies, if required)

Date	Time	Inbound/ Outbound	Commodity Type	Destination/Port of Exit (Address, Bazar, City/Union, Upazila, District)	Weight* in kg	Volume* in m³	Value of commodity in BDT	Shipment Cost in BDT (including transport, labour, tax/toll)	Types of used vehicles (Please use a code from below)			Transfer points (Port/Station Name)				

Mode Codes: H: Road, R: Rail, W: Water, A: Air: Vehicle Type Codes:

H1. Rickshaw/ Rickshaw Van	H7. 3 Axle Truck
H2. Motorized 3 - Wheeler/ CNG/ Mishuk/ Auto	H8. 4 Axle Truck
H3. Utility Vehicle/4-Wheel Drive/SUV	H9. 5 Axle Truck
H4. Human Haulier/ Leguna/ Tempo	H10. 6 Axle Truck
H5. Small Goods Vehicle/ Pick-up/ Covered Van	H11. 7 Axle Truck
H6. 2 Axle Truck	H12. Other

Water Vessel Code:

W1. Boat/ Dingi Nouka (Without Engine)

W2. Engine Trawler (8-12 ton)

W3. Engine Trawler (12-15 ton)

W4. Engine Trawler (150 ton)

W5. Engine Trawler (200-250 ton)

W6. Ball-Gate Ship (Above 400-500 metric

ton)

W7. Cargo Ship (Above 500-1000 metric

ton)

W8. Cargo Ship (1000-1300 metric ton)

W9. Cargo Ship (Above 1300 metric ton)

W10. Passenger Ship

W11. Cruise Ship

W12. Yacht

W13. Paddle Boat

W14. Houseboat

W15. Ferry

W16. Others

^{*}Either weight or volume must be specified

Tour Diary Information Form Appendix N

Survey Information					
Starting place of the tour:		 			
Starting date of the tour:		 			
Starting time of the tour:		 			
Driver name					
Co-driver/ Helper name					
Owner name					
Owner address					
Vehicle registration number					
Maximum capacity of the vehicle (in ton)					
Empty weight of the vehicle (in ton)					
Truck type (put a tick)	Rigid truck		Articulat	ted	
Vehicle Type:					
Vehicle Type	Please √ or relevant box	 Vehicle T	уре	Please relevant	

Vehicle Type	Please √ on the relevant box	Vehicle Type	Please √ on the relevant box
Rickshaw/ Rickshaw Van		3 Axle Truck	
Motorized 3 - Wheeler/ CNG/ Mishuk/ Auto		4 Axle Truck	
Utility Vehicle/4-Wheel Drive/SUV		5 Axle Truck	
Human Haulier/ Leguna/ Tempo		6 Axle Truck	
Small Goods Vehicle/ Pick-up/ Covered Van		7 Axle Truck	
2 Axle Truck		Other	

Commodity Description:	
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Commodity Type:

SI. No.	Commodity Type	Please $$ on the relevant box
1	Agricultural Product and Live Animal	
2	Food stuffs and animal fodder	
3	Solid Mineral fuel	
4	Petroleum Products	
5	Ores and Mineral waste	
6	Metal Product	
7	Crude and manufacturer building materials	
8	Fertilizer	
9	Chemical	
10	Machineries, Transport equipment, Manufactured articles, and miscellaneous articles	

Tour Dairy:

			Locati	on Detai	i		Arrival		Departure		Com	modity l	Loaded	Comm	nodity U	nloaded	
Activity	Trip Purpose (Pick up/ Delivery)	Establishment	House Number	Road Name	Town/ Village	District	Date	Time	Date	Time	Commodity Description	Commodity Type	Quantity (in ton)	Commodity Description	Commodity Type	Quantity (in ton)	Parking Type
Start																	
End												•					