
TENDER FOR
CONDUCTING
WORKER'S MODE
CHOICE SURVEY FOR
GREATER CHENNAI
METROPOLITAN
AREA (CMA) & DATA
DIGITIZATION

CLIENT: INDIAN INSTITUTE OF
TECHNOLOGY MADRAS (IITM)

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Part A: Vehicle availability and ownership Details							
I. Details regarding vehicles in the house		i. Bicycle	ii. Two-wheeler	iii. Car			
a. Number of vehicles		0/1/2/3/≥4	0/1/2/3/≥4	0/1/2/3/≥4			
b. No. of household members who can drive a		-NA-	0/1/2/3/≥4	0/1/2/3/≥4			
c. Can you drive a : Bicycle <input type="checkbox"/> 2wheeler <input type="checkbox"/> car <input type="checkbox"/> , if yes, years of driving experience for 2w or car : _____ yrs							
2a. Is a household vehicle available only for your use: Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Not available <input type="checkbox"/>							
b. If available, Make and model of the vehicle you drive to work: _____ /NA c. Year of purchase : _____							
d. Fuel type : Petrol / Diesel / Electric / LPG / CNG							
e. Is the vehicle used to home to work provided by your employer? Yes <input type="checkbox"/> No <input type="checkbox"/>							
f. Distance travelled using your personal vehicle in one year (for all purposes) <1000 Km <input type="checkbox"/> 1000-3000 Km <input type="checkbox"/> 3000 – 7000 Km <input type="checkbox"/> 7000 – 10,000 Km <input type="checkbox"/> > 10,000 Km <input type="checkbox"/> Don't know <input type="checkbox"/>							
3. Do you often make trips that involve? (tick all that apply): pick up or drop off of other family members/friends <input type="checkbox"/> Joint travel (with 1 or more copassengers) <input type="checkbox"/> Carrying heavy items/bags <input type="checkbox"/> Combine different activities (such as shopping, work) in a single trip <input type="checkbox"/> Travelling to many different destinations in a day <input type="checkbox"/> odd timings (very late at night or early in the morning) <input type="checkbox"/> Visit to unfamiliar places <input type="checkbox"/> Unplanned or spontaneous trips <input type="checkbox"/> Return home for lunch <input type="checkbox"/>							
4. Number of days you go to work per week: 3 or less <input type="checkbox"/> 4 days <input type="checkbox"/> 5 days <input type="checkbox"/> 6 or more days <input type="checkbox"/>							
5a. If needed, is it possible to take public transport (bus/train) on your way from home to work?: Yes / No							
b. If yes, which options are available (tick all that apply): <input type="checkbox"/> Bus <input type="checkbox"/> Mini-Bus <input type="checkbox"/> MRTS Train <input type="checkbox"/> Suburban Train <input type="checkbox"/> Metro							
c. If needed, which paid private transport options are available for going from home to work directly, without any other vehicle (tick all that apply): Auto <input type="checkbox"/> Share auto <input type="checkbox"/> Maxicab <input type="checkbox"/>							
d. Is a company bus available for going from home to work? Yes / No							
e. What is company bus monthly fare?: Rs _____ / Don't Know							
f. Distance from home to company bus stop: <0.25 km <input type="checkbox"/> 0.25 – 0.5km <input type="checkbox"/> 0.5-1 Km <input type="checkbox"/> 1 - 2km <input type="checkbox"/> >2km <input type="checkbox"/>							
Part B: Nearby Transport facilities details							
1. What is the distance from?:	Distance		How would you reach this place (usually) (tick one)				
a. Home to nearby bus stop	<0.25 Km/ 0.25-0.5 Km/ 0.5-1 Km/ 1-1.5 Km / >1.5Km / DK		Walk <input type="checkbox"/> Two-wheeler <input type="checkbox"/> Auto <input type="checkbox"/> Car <input type="checkbox"/> Share auto <input type="checkbox"/> Other :				
b. Home to nearby railway station (if available)	<0.25 Km/ 0.25-0.5 Km/ 0.5-1 Km/ 1-1.5 Km / >1.5Km / DK		Walk <input type="checkbox"/> Two-wheeler <input type="checkbox"/> Auto <input type="checkbox"/> Car <input type="checkbox"/> Share auto <input type="checkbox"/> Other :				
c. Bus stop (near work) to office	<0.25 Km/ 0.25-0.5 Km/ 0.5-1 Km/ 1-1.5 Km / >1.5Km / DK		Walk <input type="checkbox"/> Two-wheeler <input type="checkbox"/> Auto <input type="checkbox"/> Car <input type="checkbox"/> Share auto <input type="checkbox"/> Other :				
d. Railway station (near work) to office	<0.25 Km/ 0.25-0.5 Km/ 0.5-1 Km/ 1-1.5 Km / >1.5Km / DK		Walk <input type="checkbox"/> Two-wheeler <input type="checkbox"/> Auto <input type="checkbox"/> Car <input type="checkbox"/> Share auto <input type="checkbox"/> Other :				
2a. Do you think walking is a practical option for your journey from home to work? Yes/No							
b. Do you think cycle is a practical option for your journey from home to work? Yes/No							
3. On your way from home to work, how is the(Please tick)							
a. Level of congestion: low <input type="checkbox"/> Medium <input type="checkbox"/> high <input type="checkbox"/> DK <input type="checkbox"/> b. Difficulty in crossing junctions : High <input type="checkbox"/> Medium <input type="checkbox"/> Low <input type="checkbox"/> DK <input type="checkbox"/>							
c. Road safety for walking: Good <input type="checkbox"/> OK <input type="checkbox"/> Poor <input type="checkbox"/> DK <input type="checkbox"/> d. Road safety for bicycles: Poor <input type="checkbox"/> OK <input type="checkbox"/> Good <input type="checkbox"/> DK <input type="checkbox"/>							
e. Usability of foot path: Poor <input type="checkbox"/> OK <input type="checkbox"/> Good <input type="checkbox"/> DK <input type="checkbox"/> f. Road condition: good <input type="checkbox"/> OK <input type="checkbox"/> poor <input type="checkbox"/> DK <input type="checkbox"/>							
g. Interference due to parking / pedestrians / bus stops while walking or cycling : <input type="checkbox"/> low <input type="checkbox"/> Medium <input type="checkbox"/> high <input type="checkbox"/> DK							
Part C: Work and non-work travel details							
1a. How frequently do you use the following modes: (1. Daily (D) 2. Frequently (>3 days/ week) (F) 3. Moderate (1-2 times/week)(M) 3. Infrequently (1-2 times/month)(I) 4. rarely or never (<1/month))							
2w	Car	Bus	Train	Auto	Share auto	Company bus	App-based services (ola , uber etc)
D/F/M/I/R	D/F/M/I/R	D/F/M/I/R	D/F/M/I/R	D/F/M/I/R	D/F/M/I/R	D/F/M/I/R	D/F/M/I/R
b. How many hours do you travel every day? : <1 <input type="checkbox"/> 1-2 <input type="checkbox"/> 3-4 <input type="checkbox"/> 5 or more hours <input type="checkbox"/> DK <input type="checkbox"/> CS							
c. How many Km do you travel every day?: < 5 <input type="checkbox"/> 6-10 <input type="checkbox"/> 11-20 <input type="checkbox"/> 21-30 <input type="checkbox"/> >30 Km <input type="checkbox"/> DK <input type="checkbox"/> CS							
2. Home - Work distance (one-way) is: < 3 km <input type="checkbox"/> 3 - 5 km <input type="checkbox"/> 6 - 10 km <input type="checkbox"/> 11 - 15 km <input type="checkbox"/> 16 - 20 km <input type="checkbox"/> 21-30 km <input type="checkbox"/> >30 km <input type="checkbox"/> DK <input type="checkbox"/>							
3a. Work Place: Area/Locality _____			b. Street _____				
c. Leave home at: _____ A.M/P.M			d. Reach work at: _____ A.M/P.M				
e. Leave work at: _____ A.M/P.M			f. Reach home at: _____ A.M/P.M				
g. Office (starting and ending) timings: _____ a.m. to _____ p.m. h. Your preferred time of arriving at work: _____ a.m.							

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1 NOTICE INVITING TENDER

1.1 INTRODUCTION

IITM (hereinafter referred to as Purchaser/Client) invites sealed tender from eligible bidders for conducting the worker's mode choice survey for the Greater Chennai Metropolitan Area (CMA) and for data digitization of the same. Where, a worker is an individual who is employed out-of-home (Full-time, part-time or self-employed) and commutes to the workplace. Further details regarding the definition of the worker are specified at section 5.3.4.

1.2 GENERAL INFORMATION

Item	Reference
Title	Tender for conducting worker's mode choice survey for Greater Chennai Metropolitan Area (CMA) & data digitization
Issuing department	Department of Civil Engineering, Transportation Division
Contact person details	Dr. Karthik K Srinivasan, e-mail id : karthikks@iitm.ac.in Ganesh Ambi Ramakrishnan e-mail id: ambi.ganesh@gmail.com
Address of the website where tender and all associated information would be published	http://tenders.iitm.ac.in/ http://www.eprocure.gov.in/
Brief description of tender	To conduct worker's mode choice survey for the residents of Greater Chennai Metropolitan Area (CMA) and to digitize the surveyed data.
Period of completion of work	The entire survey and data digitization should be completed within 8 weeks of releasing the purchase order.
Address for submission of quotations	Transportation Engineering Division (BSB 238 B) Department of Civil Engineering Indian Institute of Technology Madras Chennai – 600036

1.3 SCHEDULE OF BID PROCESS

Sno.	Event	Tentative Dates	Venue
1	Purchasing/Downloading the bid documents		http://tenders.iitm.ac.in/ & http://www.eprocure.gov.in/
2	Opening of technical bid	Within 1 week after tender due date	Transportation Engineering Division (BSB 238 B),

3	Opening of commercial bid	Approximately 1 week after opening of technical bid	Department of Civil Engineering, Indian Institute of Technology Madras, Chennai – 600036
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If any changes are made to this document, an addendum would be issued by the purchaser. The addendum would be available at the purchaser's website (<http://tenders.iitm.ac.in/>). The addendum would be a part of the bidding documents and will be binding on all the bidders.

A bidder wishing to withdraw its bid shall notify the purchaser in writing prior to the date and time set for the bid opening. The withdrawal request must be submitted in a sealed envelope clearly labeled "BID WITHDRAWAL NOTICE" and should be accompanied by a written power or attorney authorizing the signatory of the withdrawal notice to withdraw the bid. The withdrawal notice must reference to the original tender document.

2 ELIGIBILITY CRITERIA

The bidders would be shortlisted based on the eligibility criteria below. The bidder must satisfy all the criteria & should provide all the supporting documents mentioned below in order to be eligible.

Sno.	Criteria	Supporting documents
1	Companies registered under the Indian Companies Act 1956 are eligible or a partnership firm registered under the Partnership Act, 1932 or registered under LLP Act, 2008. Consortiums of any sort would not be allowed.	Certificate of Incorporation
2	The bidder should have been in operation for at least 3 years as on 1 st February 2015 as evident by the certificate of Incorporation and Certificate of Commencement of Business issued by the Registrar of Companies, India or sales tax certificate or certificate issued by any other government Authority	Certificate of Incorporation or Commencement of Business issued by the Registrar of Companies, India or sales tax certificate or certificate issued by any other government authority
4	The bidder should not currently have been blacklisted by any Government Agency in India or under a declaration of ineligibility for fraudulent or corrupt practices or inefficient/ ineffective performance	Undertaking from the authorized signatory of the bidder (as per format given in Annexure 6)
5	The bidder should be a single party, primarily a Survey or Transportation firm who on their own (no consortium partners) shall execute the entire work i.e. "Conducting	

	worker's mode choice survey and Data digitization works". The pre-qualification criteria for bidders are as follows.	
5.1	Average annual financial turnover of the bidder during the last 3 years ending 31 st March 2014 shall be at least Rs. 25 Lakhs.	Audited balance sheet for the financial year 2011-12, 2012-2013, 2013-14 shall be submitted along with the technical bid. The bidder must also submit the details regarding the same as per format given in Annexure 3
5.2	Experience of having successfully completed similar works (Household survey for mode choice and Data digitization) during the last 3 years ending on 30 th June 2015 should be either of the following. a. Two similar completed works costing not less than INR 10 Lakhs each OR b. One similar completed work costing not less than INR 20 Lakhs	Documentary proof (Certificate of successful completion) from the end user, detailing the size of survey samples with customer & location details, total project cost and date of completion shall be submitted along with the technical bid. The bidder must also submit the details regarding the same as per format given in Annexure 4
6	The bidder must have sufficient experience of doing survey work in Tamil and English languages	Certificate from the current authorized signatory of the bidder

Note: Client Certificates should clearly mention value of assignment, size of samples surveyed, languages used for conducting survey and also the volume of data digitized.

3 SELF-DECLARATION

Self-declaration on simultaneous execution of multiple household transportation survey projects: The bidder should provide a declaration about whether the bidder has simultaneously performed more than one project involving household transportation survey data collection inside the same city in India. Projects that overlap by at least one month should be reported as being simultaneously performed.

If the bidder had conducted such concurrent household travel survey projects in the same city, successful completion certificates of survey works carried out simultaneously (or overlapping by more than one month) should be provided as a part of the eligibility criterion. Details regarding these simultaneous projects including project start date, completion date, no. of surveys sampled, value of the project and the area surveyed must also be included in this declaration.

Failure to provide this declaration or false representation may result in the rejection of the bid.

4 INSTRUCTION TO BIDDERS

4.1 BACKGROUND

The Transportation Engineering Division, Dept. of Civil Engineering, Indian Institute of Technology (IIT) Madras, is conducting a research project on travel demand modeling of Greater Chennai Metropolitan, as part of activities at the Centre of Excellence in Urban Transport sponsored by the Ministry of Urban Development (MoUD), Government of India.

As part of the project, worker's mode choice surveys are to be conducted for the greater Chennai Metropolitan area (CMA) to study the various modes of travel chosen by workers for their daily commute. In this connection, services of an external agency are required to carry out the surveys and to digitize the collected data (as described in section "Terms of Reference"). Therefore, IITM invites sealed tender for conducting mode choice survey inside the Greater Chennai Metropolitan Area (CMA) and for data digitization of the same.

4.2 LANGUAGE OF THE BID

The bid as well as all the supporting documents relating to the bid exchanged by the bidder and the purchaser shall be written in English language. Supporting documents and printing literature furnished by the bidder maybe in another language, provided they are accompanied by an accurate translation of the relevant passages in the English language.

4.3 BID VALIDITY

The offer submitted by the bidder should be valid for a minimum period of 180 days from the date of submission of Tender.

4.4 SUBMISSION OF BIDS

Two separate sealed envelopes, one containing the technical bid and supporting documents to prove the eligibility of the bidder for the bid and the other containing commercial bid should be enclosed together in a larger envelope, sealed and superscripted with the title-**“Tender for conducting worker's mode choice survey at Greater Chennai Metropolitan Area (CMA) and data digitization”**, Tender reference no., due date and name of the bidder.

The bid should be addressed to the address given below

Transportation Engineering Division (BSB 238 B)
Department of Civil Engineering
Indian Institute of Technology Madras
Chennai – 600036

ENVELOPE 1 –

The envelope must be superscripted with the title “**TECHNICAL BID**” and must contain the following documents:

- a) All documents mentioned in Annexure 11 duly filled and signed
- b) All documents required as per the “Eligibility criteria” section of the document.
- c) Soft copy of the documents in Microsoft Office/ Open office / Pdf format submitted as per point (a) and (b) mentioned above in CD/DVD

ENVELOPE 2 –

The commercial offer must be given in a separate sealed envelope with the title “**COMMERCIAL BID**”. Bidder should submit their prices only as per the format for commercial bid including bill of quantities as given in Annexure 10. The bid price quoted other than the bid form shall be liable to be rejected. All the prices should be quoted in Indian Rupees. The bid form must be filled in completely without any errors, erasures or alterations. The bid form prices must not contain any conditions. Conditional bid form is liable to be rejected.

A soft copy of commercial bid including bill of quantities on CD/DVD in Microsoft Office (Excel)/ Open office (Calc) format must also be submitted along with the commercial bid documents.

4.5 PERFORMANCE SECURITY

Performance security @ 5% of the total order value shall be submitted by the successful bidder in the form of DD/FD/ Bank Guarantee favoring IITM, along with the order acceptance. The performance security shall be valid up to 120 days beyond completion of project. The performance security will be returned after acceptance of project report by IITM.

4.6 DISQUALIFICATION

The bidder would be disqualified at any time during the bid process at the sole discretion of the purchaser, for the following reasons:

1. Submitted the bid after the response deadline;
2. Made misleading or false representations or suppressed relevant information in the bid proposal (including documents, forms, statements, attachments, presentations, etc.) submitted as proof of the eligibility requirements or as part of their proposal;
3. Failure to meet any of the eligibility criteria as mentioned in section “Eligibility Criteria”.
4. Failed to provide clarifications, non-responsive and/or substantive responses, when sought;

5. Blacklisted by the Government of India (“GoI”), State Government or any other Government owned agency including quasi-Government sector organization or company, for corrupt, fraudulent practices or reasons related to non-performance in an engagement on the date of opening of bid.

4.7 LIABILITY/ACCIDENT

The contractor shall keep indemnified IIT Madras against all delays, losses and claims for injuries/death and damages to any person or property whatsoever which may arise out of or in consequence of the Survey work and against all claims, demands, proceedings, damages, costs, changes, expenses whatsoever in respect thereof in relation thereto. The contractor should comply with all Govt. (State & Central) statutory Requirements as per law.

4.8 APPLICABLE LAW

1. The vendor shall be governed by the laws and procedures established by Government of India, within the framework of applicable legislation and enactment made from time to time concerning such commercial dealings/processing.
2. All disputes in this connection shall be settled in jurisdiction of the head quarters of the purchaser.
3. Purchaser reserves the right to cancel this bid or modify the requirement without assigning any reasons. The purchaser will not be under obligation to give clarifications for the same.
4. Purchaser reserves the right that the work can be allocated to any of the empanelled vendors.
5. Purchaser also reserves the right to relax any of the terms & conditions of the bid.
6. Purchaser, without assigning any further reason can reject any bid(s), found defective in any manner

4.9 DISPUTES/ARBITRATION

In the event of a dispute or a difference of any nature whatsoever between the parties during the course of performance of respective obligations arising out of this Agreement, the parties agree to refer the matter to the Director IIT Madras to resolve the disputes keeping in view the best interest of the parties and in keeping with the spirit of performance of this Agreement. If the matter still remains unresolved, then the aggrieved party may apply to the Director, IIT Madras to appoint an Arbitrator to adjudicate the dispute. Within one month of receipt of application to appoint an arbitrator, the Director will appoint a sole arbitrator to decide the case. The arbitrator will conduct the proceedings as per Arbitration and Conciliation Act, 1996. The cost of arbitration will be shared equally by both the parties.

4.10 JURISDICTION

The Parties to this Agreement hereby declare that the Courts in Chennai alone are competent to deal with disputes, if any, arising out of this Agreement.

5 TERMS OF REFERENCE

5.1 OBJECTIVES

The Indian Institute of Technology, Madras (IITM) (hereinafter referred to as the “Study Team”) is conducting “WORKER’S MODE CHOICE SURVEY FOR GREATER CHENNAI METROPOLITAN AREA (CMA) & DATA DIGITIZATION” (hereinafter referred “The Study”).

The objective of the study is to conduct worker’s mode choice survey and to digitize the data from paper format to study the modes of travel chosen for daily commute by the working individuals in Chennai city. The worker’s mode choice surveys are to be conducted in 3000 households as noted in Section 5.3.3.

The survey consists of two parts:

1. A worker’s revealed mode choice questionnaire to obtain data on socio-economic characteristics, vehicle ownership, travel facilities near home and work, means of travel (referred to as mode hereafter) chosen for daily commute from range of available modes etc. by a working individual in a household.
2. Worker’s stated preference (SP) mode choice questionnaire must be conducted to analyze the demand for upcoming or planned systems such as Metro rail etc. and also about various improvements in public transit inside the CMA. There are four types of worker’s SP mode choice survey. These are as follows
 - a. Worker’s SP mode choice survey on Metro
 - b. Worker’s SP mode choice survey on congestion and personal vehicle
 - c. Worker’s SP mode choice survey on company bus and multi-modal travel
 - d. Worker’s SP mode choice survey on mobile app based taxi and auto services

In any case, a worker shall be surveyed for only one revealed mode choice survey and only one of the four SP mode choice surveys as indicated in section 5.3.3 & in table 1.

Study duration: 8 weeks from the date of order.

5.2 BASIC APPROACH

The overall study shall be performed in a systematic manner. The work on mode choice survey and data digitization involves the following four major tasks:

1. **Survey preparatory activities:** Where pre-requisite preparatory activities for worker’s mode choice survey shall be prepared and administered and where all the necessary letters and permits shall be prepared. Further, the inception report shall be submitted containing the detailed operational plan for implementing the survey and mobilization of manpower shall be completed.
2. **Survey implementation:** where the surveys will be conducted in the field and data collected from working individuals of the households.
3. **Data Digitization/Processing,** where the responses of field data collection shall be digitized and archived

4. **Report preparation**, where the result of the data digitization and the survey document are submitted to the study team, and a survey report shall be prepared which includes - Survey description, records of major activities and compiled data and information.

5.3 TECHNICAL SPECIFICATIONS

5.3.1 Survey Objective

The objective of worker's mode choice survey is to collect extensive data on the modes selected for travel among various alternatives available at present and also those planned in future for a working individual in a household.

5.3.2 Survey Method

The survey must be conducted using face-to-face interview. The vendor shall obtain all permits or license required (such as permits from entering colonies, apartments etc. if any) and also for the work from appropriate governmental agencies at his own expense prior to the start of survey work.

5.3.3 Study area, Survey Location, Sampling Profile and Sample Size

- a) Study Area: Greater Chennai Metropolitan Area (CMA) (see Figure 1).
- b) Sample size: Total 3000 Households divided into 12 zones (see Figure 1)

The study team reserves the right to modify the total number of households in each area based on project requirements. Therefore the bidders should quote on a per completed household basis.

- c) Areas and associated zones: Zones 1-12 (see Figure 1)
- d) Zonal distribution:

Zonal distribution for worker's revealed mode choice survey: The percentage of households sampled in each zone should be based on the table 1.

Zonal distribution for worker's SP mode choice survey: The mode for which SP survey will be considered in each zone will depend on whether the zone lies in the influence area of Metro rail. In zones that do not lie in the influence area of the Metro rail system, a questionnaire on congestion and personal vehicle, a questionnaire on company bus and multi-modal travel, a questionnaire on mobile app based auto and taxi services SP survey will be conducted as per formats given in annexure 9a, b,c & d. The tentative zones and types of SP survey to be conducted in each zone are listed in Table 1 below. All the questions in the SP survey shall be answered by the respondents irrespective of their current mode of travel.

Table 1: Zonal distribution of total households to be sampled in Study area

Zone	Zonal distribution of total households to be sampled in the study area	Type of Stated preference survey to be conducted inside each zone
1	13.6	Congestion and personal vehicle SP mode choice survey
2	2.0	Company bus and Multi – modal SP mode choice survey
3	3.1	Company bus and Multi – modal SP mode choice survey
4	8.7	Company bus and Multi – modal SP mode choice survey
5	4.4	mobile app based auto and taxi services SP mode choice survey
6	4.1	Congestion and personal vehicle SP mode choice survey
7	4.8	mobile app based auto and taxi services SP mode choice survey
8	12.0	Company bus and Multi – modal SP mode choice survey
9	7.6	mobile app based auto and taxi services SP mode choice survey
10	7.2	Congestion and personal vehicle SP mode choice survey
11	7.4	mobile app based auto and taxi services SP mode choice survey
12	25	Metro rail SP mode choice survey

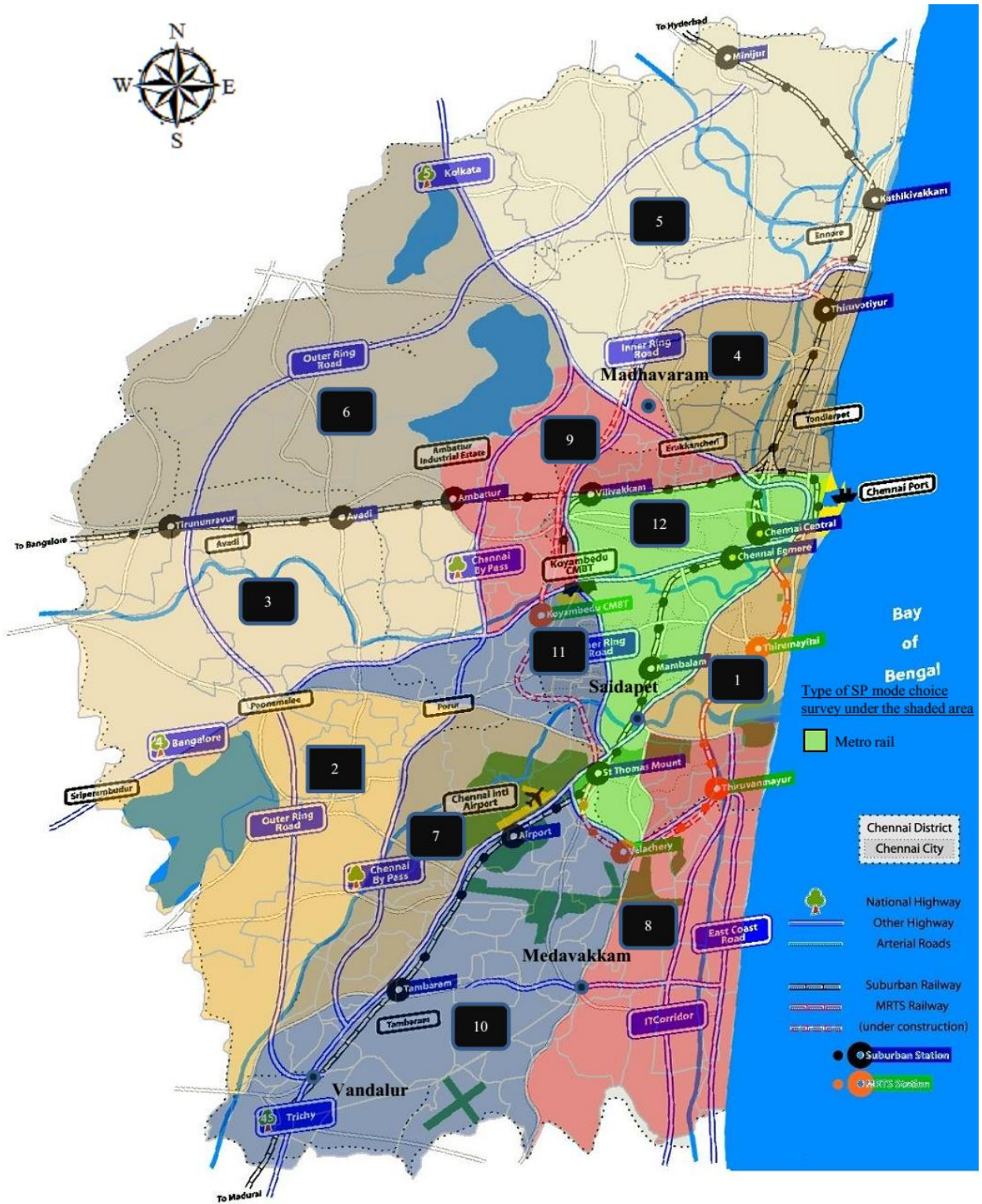


Figure 1: Detailed area of study

e) **Sampling Distribution over weekdays and weekends:**

Within each zone, the worker's mode choice survey shall be obtained both on weekdays and weekends.

5.3.4 Survey Details:

A completed worker's mode choice survey shall contain complete and accurate information regarding:

1. A worker's revealed mode choice questionnaire to be filled based on response from one working respondent in the household, and
2. A worker's SP mode choice questionnaire to be filled based on the response from the same working respondent in the households. The type of worker's SP questionnaire must be strictly based on the information provided in table 1. However, each respondent must answer all the questions in that SP survey irrespective of their current mode of travel.

The worker's mode choice survey must contain all relevant details as discussed in section 5.3.3.

The worker's mode choice survey shall be conducted **no more than one** working (or self employed) individual from every household. These workers should be employed out of home (either part-time or full-time) and **should not be** in a job that involves lot of travel for work related purposes such as medical representatives, auto or taxi drivers, marketing representatives etc.

5.3.5 Survey format

The questionnaires will be based on the tentative formats given in Annexure (given in annexure 8, 9a, 9b& 9c) and any changes should be approved by the study team.

Worker's revealed mode choice questionnaire format: The final questionnaire must be based on the tentative format given in annexure 8.

Worker's SP mode choice questionnaire format: Each worker will be asked SP questions from one of the four formats (SP-Metro, or SP-congestion and personal vehicle, or SP-company bus and multi-modal, or SP-mobile app based auto and taxi services) as designated in Table 1 depending on their zone of residence. The final questionnaire must be based on the tentative format given in annexure 9a, 9b, 9c & 9d

5.4 SCOPE OF WORK

5.4.1 Task 1: Survey Preparations:

The vendor is responsible for:

1. Preparation of all necessary equipment and necessary materials and resources for the execution of the survey and installations if any.
2. Mobilization, training and transport of the personnel to and from the survey or site locations, and their well-being and necessary insurance.

3. Preparation and printing of the necessary survey questionnaires, which shall be approved by the study team.
4. Arrangement of any necessary authorities' approvals
5. Submission of inception report.

Mobilization task includes mobilization of both human and material resources (such as vehicles, survey instruments etc.) for the survey. Staff deployment planning shall be done paying due attention to the project plan and stage-wise deliverables. A kick-off meeting will be held at IIT Madras, prior to the planned commencement of surveys to serve the following purposes:

- Introduction between vendor and client team
- Establish general communication
- Review and assessment of vendor's approach and work plan. The approval of detailed work plan must be obtained in writing from IIT Madras before commencement of surveys.

The vendor shall provide an inception report including the detailed operational plan for implementing the surveys which should be approved by the study team before implementation. The operational plan shall consist of details about:

- a. Timing of contact with working individual in a household on weekdays and weekends
- b. Sampling strategy within zones for both surveys
- c. Manpower and personnel involved

These operational details should be consistent with the other technical terms noted under Task 2 on survey implementation below.

5.4.2 Task 2: Survey Implementation:

5.4.2.1 Stages of worker's mode choice survey:

The worker's mode choice survey shall be conducted in two stages

Stage 1: Firstly, the revealed worker's mode choice survey is conducted for no more than one worker from the randomly selected household inside the study area.

Stage 2: Secondly, a worker's SP mode choice survey is conducted for the same worker according to the zones and the type of SP mode choice survey mentioned in figure 1 and table 1 in section 5.3.3

5.4.2.2 Timing of Household Visits for Conducting the Survey:

The household visits should be timed so as to avoid inconvenience to respondents to the maximum extent.

During weekdays, the survey may be conducted between 3:00 PM and 8:00 PM

During Saturdays and Sundays, the survey may be conducted between 9:00 AM to 12:00 PM and 3:00 PM to 8:00 PM.

The vendor shall obtain all permits or license required (such as permits from entering colonies, apartments etc. if any) and also for the work from appropriate governmental agencies at their own prior to the start of survey work.

5.4.2.3 Sampling Method within Zones:

Sampling of households that have participated in a household travel survey (of any kind) in the last six months (from the start of the field surveys) is not permitted. A screening question is to be included at the beginning of the survey in order to eliminate such households from participating in this study.

The households chosen for surveying should be based on simple random sampling technique so that the sample of working individuals in the households is a representative of the employed population of the selected zones in CMA in terms of basic socio-economic characteristics such as household sizes, number of vehicles, income etc. These workers **shall not be** in a job that involves lot of travel for work related purposes such as medical representatives, auto or taxi drivers, marketing representatives etc..

In case of attached dwelling units such as apartment complexes with less than hundred (100) dwelling units or flats, no more than two (2) households can be sampled. For large complexes with more than hundred (100+) dwelling units, no more than four (4) households may be sampled.

Detailed sampling techniques must be prepared by the vendor and approved by the study team as part of the operational plan before implementation of the survey.

5.4.2.4 Manpower and Personnel for Conducting the Survey:

The composition of the survey team members and their educational qualification and experience should be submitted along with the technical bid as per the formats given in [Annexure 5](#). The cost of manpower should also be included as a separate line item in the commercial bid as per section 6.2.

The manpower description in technical bid should include details of key personnel such as team leader, survey coordinator or survey supervisor and details of other personnel involved (e.g. surveyors, survey supervisors, assistants for data processing etc.). The surveyors who are employed for the field survey must be sufficiently skilled and having passed at least 10th standard. They must be at least 18 years of age as on 1st February 2015. The names of surveyors with details such as age and educational qualification shall be provided to the study team at the time of mobilization.

Team Leader

All bidders must involve in this project, a team leader who is a technical person with a minimum qualification of M. Tech in Transportation Engineering or a transportation expert with a minimum of three years of experience in traffic and transportation area. This person must be an existing employee in the roll of the company for a period of at least 6 months before March 1st, 2015. The CV of this person must be attached with the technical bid.

Team leader shall be responsible for overall survey activities and reporting works. Therefore, he/she will have to keep close contact with IITM study team during the course of the survey. The team leader shall also be responsible for ensuring the quality of data collection and processes used throughout the survey and its digitization.

5.4.3 Task 3: Data digitization/processing

For the worker's revealed mode choice and SP mode choice survey, the hard copy of the survey forms containing all the responses must be digitized by the vendor into data (in spreadsheet format) containing the responses from household. The format for digitization of survey will be developed by the vendor in consultation with the study team.

The data digitization work is to be carried out concurrently along field survey work. Any corrections made in the hard copy of the survey questionnaires after quality check must be reflected in the digital format also.

The collected data and information shall be checked and processed by the vendor in accordance with the format approved by the study team. The vendor shall check the survey forms and correct the data before submitting the report to the study team. Survey implementation details including the date and time of starting and completing the survey, location of conduct of the survey (nearest intersection roads/landmark). Language used for survey must also be provided.

5.4.4 Task 4: Final Report Preparation

The final survey report shall include - the survey description, records of major activities and compiled data and information

5.5 OUTPUT & DOCUMENT USAGE

The survey output shall include the followings:

1. Completed worker's mode choice survey forms (SP and RP) in hard copy
2. Organized data in digital files.
3. Completion record shall include - survey description, records of major activities and compiled data and information

5.5.1 Document Usage:

The study and all associated data (survey data sheets, electronic files, etc.) will be the property of the client (Indian Institute of Technology Madras) and shall in no manner be shared / reproduced / utilized for any purpose without the written approval of the client.

5.6 GENERAL REQUIREMENTS

5.6.1 General Instructions

The vendor shall arrange and prepare all necessary personnel, survey materials, manpower and tools for implementing the work. The vendor shall be responsible for all the relevant cost of personnel, survey material, transportation of the personnel and other related cost for carrying out the field work.

The vendor shall be responsible for any faults during the work and accordingly no claims will be accepted by the study team.

The study team has the right to access the site during any time of the survey implementation to check the activities and to request the revision of survey instruments and survey process.

5.6.2 Coordination with the IITM Study Team

The vendor must coordinate with the study team during various stages of project to ensure that accurate data is obtained in a timely manner and that the survey process is standardized and uniform across enumerators. Following is the list of tentative events for which the vendor must coordinate with the study team.

1. Initial enumerator training shall be conducted by the study team
2. Operational plan with schedule for all activities shall be prepared by the vendor and approved by study team
3. Quality checks will be conducted by the study team after the completion of every one-third of the total surveys. The vendor shall provide hard copy of completed survey sheets and contact information including name, phone and address of the respondent for each household surveyed for quality assurance and improvement purposes.
4. The study team will perform quality checks and give any feedback to the vendor within 10 days of providing the survey sheets to the study team. If the study team finds out any errors or incomplete data in the surveys, the vendor shall correct the data by its own effort as instructed by the study team. .
5. Quality checks for the digitized data will also be performed after 50% of digitization work is complete.
6. Details about survey implementation including: dates and locations of planned surveys, number of contacts, acceptance rate, completion rate, duration of survey, language used etc. shall be recorded and shared with the study team as and when requested.
7. Format for digitization of survey will be developed in consultation with the study team.

5.6.3 Data Quality, Accuracy and Completeness

The survey data should be consistent and complete as per the specified format. Quality check will be done by the study team during various stages of work (as noted in Section 5.6.2) to check the accuracy and completeness of the collected data

The vendor has to ensure the quality of collected data and ensure that all requirements in this specification are strictly adhered to. If the study team finds out format, range or logical errors or incomplete data in the surveys or its digitization, the vendor shall correct the data by its own effort as instructed by the study team.

6 INSTRUCTIONS FOR COMMERCIAL BID AND PAYMENT TERMS

6.1 INSTRUCTIONS FOR COMMERCIAL BID

The vendor shall be responsible for all material costs associated with conducting the survey including questionnaires, pads, pens etc. These material costs should be budgeted as a separate line item in the commercial bid on a per completed household basis. Justification for the items included and costs entailed shall be provided in the commercial bid. The format for commercial bid including bill of quantities must be as per format given in annexure 12.

The cost of manpower should also be included as a separate line item in the commercial bid on a per completed household survey basis along with a detailed justification of the cost estimates for the different personnel involved in the project team. A detailed justification and the basis for estimation of enumerator cost per completed household should be provided with the commercial bid. As the quality of data is of paramount importance, the study team reserves the right to reject any bid that does not have this information or has unreasonably low (< Rs. 100 / enumerator per complete household survey) or high values of personnel cost estimates, particularly enumerator costs.

To ensure the quality and completeness of data and in view of the time commitment required from all household respondents for the survey, the vendor shall include a line item in their budget (per completed household) towards compensating the respondents for the opportunity cost of survey responses. This line item should be consistent with the rate mentioned in Annexure 12. The vendor shall be responsible for providing this compensation (such as a memento/souvenir/other token of appreciation in kind) to households that respond completely and should be approved by the study team as part of the operational plan provided by the vendor.

The study team reserves the right to modify (e.g. by about 10-20%) the total number of households in each area based on project requirements. Therefore the bidders should quote on a per completed household survey basis.

6.2 PAYMENT TERMS

1. 5% payment of order value shall be released after mobilization and submission of inception report.
2. 15% payment of order value shall be released on completion of 1/3rd of surveys & after its quality check
3. 20% payment of order value shall be released on completion of 2/3rd of surveys & after its quality check
4. 15% payment of order value shall be released on completion of all surveys & after its quality check
5. 15% payment of order value shall be released on completion of 50% of data digitization work & after its quality check
6. 15% payment of order value shall be released on completion of 100% of data digitization work & after its quality check
7. Balance 15% payment of total order value shall be released on submission of performance bank guarantee for an equivalent amount valid for a period of 120 days beyond completion of the project.

ANNEXURES

Annexure 1: letter of submission of bid

Letter of submission of bid (To be submitted on the Letterhead of the responding agency i.e. bidder)

To,

Project Coordinator,
Transportation Engineering Division (BSB 238 B)
Department of Civil Engineering
Indian Institute of Technology Madras
Chennai – 600036

Ref: Tender Reference No.

Sir,

The bid document on the selection of vendors for worker's mode choice survey and data digitization of records as detailed in your bid document, terms & conditions, technical specifications and scope of work, etc., have been perused / examined thoroughly and the provisions and requirements and all other factors governing the bid have been understood. I/ we hereby submit our offer for the proposed survey work and data digitization in accordance with the terms and conditions and confirm our acceptance to execute the order at the rates quoted by us in the accompanying commercial bid. We further confirm that:

- a) We have sufficient qualified manpower and necessary materials to execute the order efficiently in the specified time schedule
- b) We further confirm that the points of the bid document have been read, understood and signed and there is no deviation / discrepancy.

Signature of the bidder

(With stamp and date.)

Annexure 2: Business Details

(To be submitted on the letterhead of the responding agency)

Name of the Bidder: _____

II. Incorporation as Sole Proprietor/Partnership/Private Limited or Limited Firm:

_____ in the year _____ at _____

III. Bidder's Profile:

Sno.	Details of bidder	Particulars					
1	Contact details						
	Telephone number.						
	Fax						
	Mobile number						
	e-mail						
2	Category of the Bidder (Whether company, partnership firm or registered society) Please provide registration details.						
3	Name of the Chief Executive Officer & Telephone No.						
4	Sales Tax/Commercial Tax/ CST nos.						
5	Income Tax PAN/GIR No.						
6	Name(s), contact number and Address(s) of proprietor or partners or Directors	Sno.	Name	Designation	Postal address	Email	Contact no.

Annexure 3: Turnover Details

Turnover (Rs.)		
2011-12	2012-13	2013-14

Annexure 4: List of similar works completed

List of similar works successfully completed by the bidder with satisfactory completion end user certification

Sno.	Name of client	Project Name	Project completion date	Value of work (in Rupees)	Brief description of the project and scope of work (Attach work order copies)	Role of bidder	No. of samples surveyed	Client contact details with name, designation and contact no.	Completion certificate enclosed (Y/N)

Annexure 5: List of key personnel and other personnel

Format for list of key personnel (CVs of the key personnel to be attached)

Name	Age	Educational Qualifications	Years of experience	Relevant projects and similar responsibility

Format for list of other personnel

Title	Number of personnel(s).	Educational Qualifications	Experience	Other relevant details (if any)
Field Surveyors or enumerators				
Personnel for data processing				

Annexure 6: Letter of Declaration

Declaration that the bidder has not been blacklisted (To be submitted on the letterhead of the responding agency i.e the bidder)

Place:

Date:

To,

Project Coordinator,
Transportation Engineering Division (BSB 238 B)
Department of Civil Engineering
Indian Institute of Technology Madras
Chennai – 600036

Reference : Tender Reference no. –

Subject: Self declaration of not been blacklisted in response to the Selection of vendors for Chennai worker's mode choice Survey

Dear Sir,

We confirm that our company, is not blacklisted in any manner whatsoever by any of the state and/or central government in India on any ground including but not limited to indulgence in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice.

Place:

Date:

Bidder's Company Seal:

Authorized Signatory's Signature:

Annexure 7: Project implementation schedule

The bidder shall provide the week-wide project implementation schedule for the work completion (with macro and micro activities mentioned) for a period of 12 weeks. Below is a sample format.

Sno.	Tasks	Weeks											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Preparation and Permits												
2	Field survey												
3	Coding and Data input												
4	Data check												
5	Reporting and Job completion												

Annexure 8: Format for worker's revealed mode-choice survey

questionnaire

Part A: Vehicle availability and ownership Details															
I. Details regarding vehicles in the house		i. Bicycle		ii. Two-wheeler		iii. Car									
a. Number of vehicles		0/1/2/3/≥4		0/1/2/3/≥4		0/1/2/3/≥4									
b. No. of household members who can drive a		-NA-		0/1/2/3/≥4		0/1/2/3/≥4									
c. Can you drive a : Bicycle <input type="checkbox"/> 2wheeler <input type="checkbox"/> car <input type="checkbox"/> , if yes, years of driving experience for 2w or car : _____ yrs															
2a. Is a household vehicle available only for your use: Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Not available <input type="checkbox"/>															
b. If available, Make and model of the vehicle you drive to work: _____ /NA c. Year of purchase : _____															
d. Fuel type : Petrol / Diesel / Electric / LPG / CNG															
e. Is the vehicle used to home to work provided by your employer? Yes <input type="checkbox"/> No <input type="checkbox"/>															
f. Distance travelled using your personal vehicle in one year (for all purposes) <1000 Km <input type="checkbox"/> 1000-3000 Km <input type="checkbox"/> 3000 – 7000 Km <input type="checkbox"/> 7000 – 10,000 Km <input type="checkbox"/> > 10,000 Km <input type="checkbox"/> Don't know <input type="checkbox"/>															
3. Do you often make trips that involve? (tick all that apply): pick up or drop off of other family members/friends <input type="checkbox"/> Joint travel(with 1 or more copassengers) <input type="checkbox"/> Carrying heavy items/bags <input type="checkbox"/> Combine different activities (such as shopping, work) in a single trip <input type="checkbox"/> Travelling to many different destinations in a day <input type="checkbox"/> odd timings (very late at night or early in the morning) <input type="checkbox"/> Visit to unfamiliar places <input type="checkbox"/> Unplanned or spontaneous trips <input type="checkbox"/> Return home for lunch <input type="checkbox"/>															
4. Number of days you go to work per week: 3 or less <input type="checkbox"/> 4 days <input type="checkbox"/> 5 days <input type="checkbox"/> 6 or more days <input type="checkbox"/>															
5a. If needed, is it possible to take public transport (bus/train) on your way from home to work?: Yes / No															
b. If yes, which options are available (tick all that apply): <input type="checkbox"/> Bus <input type="checkbox"/> Mini-Bus <input type="checkbox"/> MRTS Train <input type="checkbox"/> Suburban Train <input type="checkbox"/> Metro															
c. If needed, which paid private transport options are available for going from home to work directly, without any other vehicle (tick all that apply): Auto <input type="checkbox"/> Share auto <input type="checkbox"/> Maxicab <input type="checkbox"/>															
d. Is a company bus available for going from home to work? Yes / No															
e. What is company bus monthly fare?:Rs _____ / Don't Know															
f. Distance from home to company bus stop: <0.25 km <input type="checkbox"/> 0.25 – 0.5km <input type="checkbox"/> 0.5-1 Km <input type="checkbox"/> 1 - 2km <input type="checkbox"/> >2km <input type="checkbox"/>															
Part B: Nearby Transport facilities details															
1. What is the distance from?:		Distance			How would you reach this place (usually) (tick one)										
a. Home to nearby bus stop		<0.25 Km/ 0.25-0.5 Km/ 0.5-1 Km/ 1-1.5 Km / >1.5Km / DK			Walk <input type="checkbox"/> Two-wheeler <input type="checkbox"/> Auto <input type="checkbox"/> Car <input type="checkbox"/> Share auto <input type="checkbox"/> Other :										
b. Home to nearby railway station (if available)		<0.25 Km/ 0.25-0.5 Km/ 0.5-1 Km/ 1-1.5 Km / >1.5Km / DK			Walk <input type="checkbox"/> Two-wheeler <input type="checkbox"/> Auto <input type="checkbox"/> Car <input type="checkbox"/> Share auto <input type="checkbox"/> Other :										
c. Bus stop (near work) to office		<0.25 Km/ 0.25-0.5 Km/ 0.5-1 Km/ 1-1.5 Km / >1.5Km / DK			Walk <input type="checkbox"/> Two-wheeler <input type="checkbox"/> Auto <input type="checkbox"/> Car <input type="checkbox"/> Share auto <input type="checkbox"/> Other :										
d. Railway station (near work) to office		<0.25 Km/ 0.25-0.5 Km/ 0.5-1 Km/ 1-1.5 Km / >1.5Km / DK			Walk <input type="checkbox"/> Two-wheeler <input type="checkbox"/> Auto <input type="checkbox"/> Car <input type="checkbox"/> Share auto <input type="checkbox"/> Other :										
2a. Do you think walking is a practical option for your journey from home to work? Yes/No															
b. Do you think cycle is a practical option for your journey from home to work? Yes/No															
3. On your way from home to work, how is the(Please tick)															
a. Level of congestion: low <input type="checkbox"/> Medium <input type="checkbox"/> high <input type="checkbox"/> DK <input type="checkbox"/> b. Difficulty in crossing junctions : High <input type="checkbox"/> Medium <input type="checkbox"/> Low <input type="checkbox"/> DK <input type="checkbox"/>															
c. Road safety for walking: Good <input type="checkbox"/> OK <input type="checkbox"/> Poor <input type="checkbox"/> DK <input type="checkbox"/> d. Road safety for bicycles: Poor <input type="checkbox"/> OK <input type="checkbox"/> Good <input type="checkbox"/> DK <input type="checkbox"/>															
e. Usability of foot path: Poor <input type="checkbox"/> OK <input type="checkbox"/> Good <input type="checkbox"/> DK <input type="checkbox"/> f. Road condition: good <input type="checkbox"/> OK <input type="checkbox"/> poor <input type="checkbox"/> DK <input type="checkbox"/>															
g. Interference due to parking / pedestrians / bus stops while walking or cycling : <input type="checkbox"/> low <input type="checkbox"/> Medium <input type="checkbox"/> high <input type="checkbox"/> DK															
Part C: Work and non-work travel details															
1a. How frequently do you use the following modes: (1. Daily (D) 2. Frequently (>3 days/ week) (F) 3. Moderate (1-2 times/week)(M) 3. Infrequently (1-2 times/month)(I) 4. rarely or never (<1/month))															
2w		Car		Bus		Train		Auto		Share auto		Company bus		App-based services (ola , uber etc)	
D/F/M/I/R		D/F/M/I/R		D/F/M/I/R		D/F/M/I/R		D/F/M/I/R		D/F/M/I/R		D/F/M/I/R		D/F/M/I/R	
b. How many hours do you travel every day? : <input type="checkbox"/> <1 <input type="checkbox"/> 1-2 <input type="checkbox"/> 3-4 <input type="checkbox"/> 5 or more hours <input type="checkbox"/> DK <input type="checkbox"/> CS															
c. How many Km do you travel every day?: <input type="checkbox"/> < 5 <input type="checkbox"/> 6-10 <input type="checkbox"/> 11-20 <input type="checkbox"/> 21-30 <input type="checkbox"/> >30 Km <input type="checkbox"/> DK <input type="checkbox"/> CS															
2. Home - Work distance (one-way) is: < 3 km <input type="checkbox"/> 3 - 5 km <input type="checkbox"/> 6 - 10 km <input type="checkbox"/> 11 - 15 km <input type="checkbox"/> 16 - 20 km <input type="checkbox"/> 21-30 km <input type="checkbox"/> >30 km <input type="checkbox"/> DK <input type="checkbox"/>															
3a. Work Place: Area/Locality _____				b. Street _____											
c. Leave home at: _____ A.M/P.M				d. Reach work at: _____ A.M/P.M											
e. Leave work at: _____ A.M/P.M				f. Reach home at: _____ A.M/P.M											
g. Office (starting and ending) timings: _____ a.m. to _____ p.m. h. Your preferred time of arriving at work: _____ a.m.															

4a. Do you change (or adjust by more than 5 min) the departure time to work: Never Rarely Sometimes Frequently

b. How many different routes do you take to go to work (If it is changed for more than 0.5 Km) ? 1 2 3 more than 4

c. Do you have any flexibility in your workplace such as: Flexible timing Work from home work in shifts None

d. Penalty for late arrival at work is: None hourly pay cut half-day pay cut Other

5. What are the destinations to which you travel most frequently for shopping, social and recreational activities? Give their travel details in table below:

Most frequent destinations for	Location (area and street name)	Number of times per week	Approximate distance from home	Means of travel for this trip
1 Shopping		Once <input type="checkbox"/> twice <input type="checkbox"/> thrice <input type="checkbox"/> four or more <input type="checkbox"/>	0.5Km <input type="checkbox"/> 0.5-1 <input type="checkbox"/> 1 – 3 Km <input type="checkbox"/> 3 – 5 Km <input type="checkbox"/> >6Km <input type="checkbox"/> DK <input type="checkbox"/>	Car / 2w / bus / train / auto / cycle / other
2 Social/Religious		Once <input type="checkbox"/> twice <input type="checkbox"/> thrice <input type="checkbox"/> four or more <input type="checkbox"/>	0.5Km <input type="checkbox"/> 0.5-1 <input type="checkbox"/> 1 – 3 Km <input type="checkbox"/> 3 – 5 Km <input type="checkbox"/> >6Km <input type="checkbox"/> DK <input type="checkbox"/>	Car / 2w / bus / train / auto / cycle / other
3 Recreation		Once <input type="checkbox"/> twice <input type="checkbox"/> thrice <input type="checkbox"/> four or more <input type="checkbox"/>	0.5Km <input type="checkbox"/> 0.5-1 <input type="checkbox"/> 1 – 3 Km <input type="checkbox"/> 3 – 5 Km <input type="checkbox"/> >6Km <input type="checkbox"/> DK <input type="checkbox"/>	Car / 2w / bus / train / auto / cycle / other

Part D: Work Travel details

1. Travel time from home to work under: Normal traffic min Very congested traffic min

2. Have you used _____ in last 3 months from home to work trip. (tick all that apply)

	a) If ticked, which ones : (tick all that apply)	b) If not ticked in 1 st col, did you think about (or consider) using any	c) If yes in col. b, did you think about (or consider) using ... (tick all that apply)
<input type="checkbox"/> Personal vehicle	2wheeler <input type="checkbox"/> Car <input type="checkbox"/>	Personal vehicle: Yes/No	2wheeler <input type="checkbox"/> Car <input type="checkbox"/>
<input type="checkbox"/> Public transport	Train & bus together <input type="checkbox"/> bus <input type="checkbox"/> MRTS train <input type="checkbox"/> Suburban train <input type="checkbox"/> Metro <input type="checkbox"/>	public transport: Yes / No	Train & bus together <input type="checkbox"/> bus <input type="checkbox"/> MRTS train <input type="checkbox"/> Suburban train <input type="checkbox"/> Metro <input type="checkbox"/>
<input type="checkbox"/> Paid transport by private operators (auto, share auto etc.)	Auto <input type="checkbox"/> Taxi <input type="checkbox"/> Share auto <input type="checkbox"/> maxicab <input type="checkbox"/> Company bus <input type="checkbox"/>	Paid transport: Yes / No	Auto <input type="checkbox"/> Taxi <input type="checkbox"/> Share auto <input type="checkbox"/> maxicab <input type="checkbox"/> Company bus <input type="checkbox"/>
<input type="checkbox"/> Non-motorized-walk/cycle	Walk <input type="checkbox"/> Bicycle <input type="checkbox"/>	Non-motorized: Yes / No	Walk <input type="checkbox"/> Bicycle <input type="checkbox"/>

3. Among the modes used in last 3 months (ticked in Q2b i.e 2nd column), what is your

	Travel mode	No. of days /week
a. Usual means of travel from home to work that you use most often		Daily/5/4/3/2/rarely
b. 2nd most frequent means of travel		Daily/4/3/2/1/rarely
c. Means of travel while returning from work to home		Daily/4/3/2/1/rarely

d. If the usual means of travel is train, which service did you use MRTS Suburban Metro

4. If you have used public transport (bus or train) to go from home to work anytime in the last 3 months, give the details

a. Location (stop name and area) of first bus stop/railway station you use from home : _____

b. Location (stop name and area) of last bus stop/railway station you use near workplace: _____

c1. Do you need to get down somewhere during your journey to change modes or buses? Yes/No

c2. if yes, what is the total distance you walked to change the modes or buses/trains: <50m / 50–250 m / 250 – 500 m / > 500 m

d. If yes, where do you usually change means of travel (buses ,train or share auto etc.) – give location (stop name and area)

Halt 1: _____ Halt 2: _____ Halt 3: _____

e. Give the following details about your public transport trip from home to workplace:

	Usual means of travel to reach this place	No. of days it is used/week	Cost (Rs)	Waiting time (mins)	Alternate mode(s)
i) Home to first bus stop / railway station	Walk /2w /Car /share auto /auto / other _____	Daily/4/3/2/1/rarely	_____	_____	Ask alternate mode only for access and first and last row
ii) First bus stop/railway station to halt 1	bus / train / _____	Daily/4/3/2/1/rarely	_____	_____	
iii) halt 1 to halt 2	Bus / train / auto / share auto / walk / others	Daily/4/3/2/1/rarely	_____	_____	
iv) halt 2 to halt 3	Bus / train / auto / share auto / walk / others	Daily/4/3/2/1/rarely	_____	_____	
v) halt 3 to last bus stop / railway station	Bus / train / auto / share auto / walk / others	Daily/4/3/2/1/rarely	_____	_____	
vi) last bus stop /railway station to work place	Walk /share auto /auto / other	Daily/4/3/2/1/rarely	_____	_____	

5. If you have used personal vehicle to go from home to work anytime in the last 3 months,

a. Who drives it usually? (tick one)
 myself other family members paid driver co-workers/friends give me a ride me and co-workers take turns

b. Total toll: Rs/day _____ **c. Parking charges:** Free / Rs _____ day/week/month/year

d. How often do you fill fuel in (2w/Car)?
 2-3 times a week/ once in a week / once in 2 weeks / once in 3 weeks / once in a month / rarely / DK

e. Average amount spent per fill : Rs _____ / hard to say

f. if you hired a paid driver, expense for driver : Rs. _____ per month / Not applicable

g. Give the following details:

Walking distance to parking?				Time spent searching for parking				No. of co-passengers	
<0.1 Km	0.1-0.25	0.25-1.0 Km	>1 Km	< 2min	2-5	6-10	> 10 min		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0 / 1 / 2 / ≥3	

6. If you have used personal vehicle and it is unavailable for some reason, how would you go to work?: (tick only one)
 drive another vehicle from my household share ride with another family member (as passenger) public transport (bus or train) share a ride in colleague's vehicle normal paid private transport (auto / taxi / share auto) app-based paid private transport (ola/ uber/ meru etc.) other (please specify)

Part E: Your comments about various means of travel to work (tick only for modes which are available to you)

1. Rate the overall travel experience from your home to work for each of the following modes
 Mark your ratings as - Very poor (VP) / Poor (P) / satisfactory (S) / Good (G) / very good (VG)

Two-wheeler	Car	Bus	Train	Auto	Share auto	Company Bus	App-based services

2. For your trip from home to work what is the level of...: (mark your ratings as Low - L, Medium - M, High - H)

Particulars	2w	Car	Bus	Auto	Share auto	Bicycle
a. Pollution faced (dust, noise, vehicular emissions and smoke) while driving and riding a...						
b. Accident risk and vulnerability in a...						
c. Stress, anxiety or tension while driving/riding in a ...						

3. For your trip from home to work, what is the level of...: (mark your ratings as Low - L, Medium - M, High - H, tick only for modes available to you in the un-shaded spaces only).

Particulars	Bus	Train	Auto	Share auto	Taxi / App-based service
a. Convenience of travelling to many places and at different times in			NA		
b. Personal security (theft, crime etc.) in...					
c. Comfort in...			NA		
d. Reliability of reaching on time in a ...					

4. Which of the following factors affects your means of travel to work? (tick all that apply). Also mention the first, second and third most important factors.

a. Mobility and convenience b. Privacy and personal space c. Comfort d. Personal security
 e. Pollution f. Accident risk and vulnerability

Most imp. factor _____ **2nd most imp. factor** _____ **3rd most imp. factor** _____

Part F 1: About Bus facilities near your home and work place

1a. Is there a direct bus to go from near your home to your work place? Yes / No / Don't Know,

b. if there is no direct bus, how many transfers (between different vehicles) do you have to make to reach your workplace from home: 1 / 2 / 3+ / DK

2. What is the frequency of bus services from near home to your work place, once every?
 5 min 10 min 15 min 20 min 20-30 min 30 min -1 hour Other DK

2. If you need to take a bus, which type of bus service do you prefer for your journey to work? (tick all that apply) :
 Ordinary bus (White board/Black letters) Express or Deluxe bus (Blue board or Green board with automatic doors)
 Volvo A/C bus First bus available to my destination No Particular preference DK

3. Is there a mini-bus/small bus service available

a. Near home - Yes / No	b. Near work - Yes / No
c. If yes, frequency is every - 5 min <input type="checkbox"/> 10 min <input type="checkbox"/> 15 min <input type="checkbox"/> 20 min <input type="checkbox"/> 20-30 min <input type="checkbox"/> 30 min -1 hour <input type="checkbox"/> Other <input type="checkbox"/> DK <input type="checkbox"/>	d. If yes, frequency is every - 5 min <input type="checkbox"/> 10 min <input type="checkbox"/> 15 min <input type="checkbox"/> 20 min <input type="checkbox"/> 20-30 min <input type="checkbox"/> 30 min -1 hour <input type="checkbox"/> Other <input type="checkbox"/> DK <input type="checkbox"/>

4. Rate the following journey characteristics of bus

a. Information on bus route numbers and timings easily available? : Yes / No / DK

b. Availability of accurate information about the arrival time of next bus : Yes / No / DK

5. Rate your experiences in bus stops with regards to the following factors on the scales mentioned against them

a. Availability and usability of seats in bus stops	Very poor/ poor/ OK/ Good/ Very good
b. Weather protection at bus stops (sun, rain, hot or cold breeze etc.)	Closed shelter / bus stop with no shelter

Part F 2: About Train facilities											
1. Rate the following journey characteristics of train											
a. Ease of entering and leaving the terminal/stop (climbing stairs, foot-over bridge etc.) is: Easy <input type="checkbox"/> Difficult <input type="checkbox"/>											
b. Availability of other means of travel in case train is very late (or train is cancelled) : Yes <input type="checkbox"/> No <input type="checkbox"/>											
2. Regarding facilities available in and around the railway station (Fill only if train is available to go to work from home. Answer by saying Yes (Y), No (N), DK and Not Applicable (NA))			Railway station								
			Near Home	Near Work							
a. Parking facility is good (adequate spacing, vehicle safety and reasonable fare)			Y / N / DK / NA	Y / N / DK / NA							
b. Easy to pick-up or drop-off passengers at the station			Y / N / DK / NA	Y / N / DK / NA							
c. Amenities such as toilets, water, refreshment/food shops are available and in usable condition			Y / N / DK / NA	Y / N / DK / NA							
d. Activity centers like shops, restaurants are at walkable distance from railway station			Y / N / DK / NA	Y / N / DK / NA							
Part F 3: About Both Bus & Train facilities											
1a. Bus pass cost: Don't have pass/Rs _____ /day/month/quarter b. Train pass cost: Don't have pass/Rs _____ /day/month/quarter											
2. Rate the following journey characteristics of bus & train as Easy(E) / Difficult (D)			Bus (Easy-E/Difficult – D)	Train (Easy-E/Difficult –D)							
a. Ease of buying ticket in (due to queue, hassle)			E/D	E/D							
b. Ease of getting in (climbing) and getting down from a bus or train (due to step height, crowding etc.)			E/D	E/D							
c. Ease of making transfers (from bus-bus or bus-train or train-bus or train-train)			E/D	E/D							
d. Ease and safety of walking and crossing the road to reach the stop or station.			E/D	E/D							
e. Good connecting modes are available to reach bus stop or railway station			Yes / No	Yes / No							
3. Rate your experiences in bus and train with regards to the following factors on the scales mentioned against them											
		Bus	Train								
a. Crowding level in		Assured seat / comfortable standing / crowded standing / jam packed	Assured seat / comfortable standing / crowded standing / jam packed								
b. Total duration (in min) that you need to stand in your journey (mins) by... (total includes what)		<10 / 10 - 20 / 20 - 30/ 30 - 45/ 45 - 60/ >60 / DK	<10 / 10 - 20 / 20 - 30/ 30 - 45/ 45 - 60/ >60 / DK								
c. Thermal comfort inside vehicle (heat, air circulation, sweating)...		Very poor/ poor/ OK/ Good/ Very good	Very poor/ poor/ OK/ Good/ Very good								
Part G: About Taxi, Auto & Share Autos services inside the city											
1. What is the distance ...?: (Read "To the nearby auto stand")											
		Near Home (km)			Near Workplace (km)						
		<0.25	0.25-0.5	0.5-1	>1	DK	<0.25	0.25-0.5	0.5-1	>1	DK
To nearest auto stand (if available)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To nearest share auto stop (if available)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Give your feedback regarding your travel experience using auto and share auto											
		Auto	Share auto		app-based travel taxi or auto services						
How frequently do you use		Many times a week (3+) <input type="checkbox"/> Few times a week (1-2) <input type="checkbox"/> few times a month <input type="checkbox"/> (<3 per month) <input type="checkbox"/> rarely or never	Many times a week (3+) <input type="checkbox"/> Few times a week (1-2) <input type="checkbox"/> few times a month <input type="checkbox"/> (<3 per month) <input type="checkbox"/> rarely or never		Many times a week (3+) <input type="checkbox"/> Few times a week (1-2) <input type="checkbox"/> few times a month <input type="checkbox"/> (<3 per month) <input type="checkbox"/> rarely or never						
I use it mostly for a distance of		Low (<3km)/ Medium (3 - 10Km) / High (>11 km)	Low (<3km)/ Medium (3 - 10Km) / High (>11 km)		Low (<3km)/ Medium (3 - 10Km) / High (>11 km)						
For which of the following activities you use :		Reach bus stop or railway station/ work / school / Shopping /Social /Religious/ Recreational / Return Home / Others	Reach bus stop or railway station/ work / school / Shopping /Social /Religious/ Recreational / Return Home / Others		Reach bus stop or railway station/ work / school / Shopping /Social /Religious/ Recreational / Return Home / Others						
Fare for a 6 – 10 Km trip in is		As per meter / 25% more / 50% more / 75% more / Twice meter / Varies randomly by driver / DK	Rs 10 / Rs 10 - 15 / Rs 16 - 20 / Rs 21 - 30/ Others Rs _____								
The usual waiting time for .. is		5 or less min <input type="checkbox"/> 10 min <input type="checkbox"/> 15 min <input type="checkbox"/> 20 min <input type="checkbox"/> 20 – 30 min <input type="checkbox"/> 30 -1 hr <input type="checkbox"/> others _____	5 or less min <input type="checkbox"/> 10 min <input type="checkbox"/> 15 min <input type="checkbox"/> 20 min <input type="checkbox"/> 20 – 30 min <input type="checkbox"/> 30 -1 hr <input type="checkbox"/> others _____		5 or less min <input type="checkbox"/> 10 min <input type="checkbox"/> 15 min <input type="checkbox"/> 20 min <input type="checkbox"/> 20 – 30 min <input type="checkbox"/> 30 -1 hr <input type="checkbox"/> others _____						
Service declined (not available or turned down by driver for cost) / month		Frequently (>3 times/month) / sometimes (1-2 times/month) rarely or never (<1/month))	Frequently (>3 times/month) / sometimes (1-2 times/month) rarely or never (<1/month))		Frequently (>3 times/month) / sometimes (1-2 times/month) rarely or never (<1/month))						

4. Are you aware of app-based travel services such as ola, uber etc.? Yes / No

5. If you are aware,

5a. How did you get to know about the app-based travel services from: Friends Family Advertisements Others _____

5b. How many times have you used the following travel services in the last 3 months

i. App-based taxi: 0 <= 2 3-5 6-10 > 10 times ii. App-based auto: 0 <= 2 3-5 6-10 > 10 times

c. If you are aware and have not used it, did you think about (or consider) using the app-based travel services? Yes / No

6. If you have used it,

a. Which one do you have experience with :Ola cabs ola auto uber Meru Taxi for sure Others _____

b. Of the above services you have experienced with, which one do you prefer the most?
ola cabs ola auto uber Meru Taxi for sure Others _____

c. Which vehicle type do you use most often? Mini(indica) Sedan Hatchback 6 seater (suv) Others _____ None

Part H: Few final questions about you and your household (HH)

1. Age	2. Marital Status : Married / Single	3. If married, does your spouse work? Yes / No		4. Gender: M / F
18-25 <input type="checkbox"/>	5. Is your home Owned <input type="checkbox"/>	6. Do you stay in	7.No. of persons in your HH who	8. Education Completed
26-35 <input type="checkbox"/>		1 BHK or smaller <input type="checkbox"/>	Live in your house? Are earning male members? _____	Primary or Middle school <input type="checkbox"/>
36-45 <input type="checkbox"/>	Rented <input type="checkbox"/>	2 BHK <input type="checkbox"/>	Are earning female members? _____	High school <input type="checkbox"/>
46-54 <input type="checkbox"/>	Company Provided <input type="checkbox"/>	3 BHK <input type="checkbox"/>	Are 5yr old or less.? _____	College Undergraduate <input type="checkbox"/>
55-60 <input type="checkbox"/>	Other <input type="checkbox"/>	4 or more BHK <input type="checkbox"/>	Are in the age of 6-17? _____	Post-Graduate or Higher <input type="checkbox"/>
60+ <input type="checkbox"/>				

9.Your Relationship to head of HH	10. Job	11. type of job if full-time	12. Which of the following are available within 1 km from		13. Total Family Income (Rs.)
Head <input type="checkbox"/>	Full-Time <input type="checkbox"/>	Professional <input type="checkbox"/>	Home	Work	<Rs. 4000/Month <input type="checkbox"/>
Wife <input type="checkbox"/>	Part-Time <input type="checkbox"/>	clerical <input type="checkbox"/>	Market <input type="checkbox"/>	<input type="checkbox"/>	4001-1000 <input type="checkbox"/>
Child <input type="checkbox"/>	Self-Employed / <input type="checkbox"/>	Teacher <input type="checkbox"/>	Shops <input type="checkbox"/>	<input type="checkbox"/>	10001-20000 <input type="checkbox"/>
Grandchild <input type="checkbox"/>	Own-Business <input type="checkbox"/>	Salesperson <input type="checkbox"/>	Hotel <input type="checkbox"/>	<input type="checkbox"/>	20001-50000 <input type="checkbox"/>
Spouse of child <input type="checkbox"/>	Daily Wages <input type="checkbox"/>	Technician <input type="checkbox"/>	Cinema <input type="checkbox"/>	<input type="checkbox"/>	50001-80000 <input type="checkbox"/>
Other <input type="checkbox"/>	Other <input type="checkbox"/>	Other <input type="checkbox"/>	Hospital <input type="checkbox"/>	<input type="checkbox"/>	>80000 <input type="checkbox"/>

14. Your monthly transport expenses: ≤ Rs. 1000 1001-3001 3001-7000 ≥ 7001 Can't Say

15. Are you paying Vehicle loan EMI? : Yes/No

16. Do you get Transport Allowance?: No If yes (≤ Rs. 1000 1001-3001 3001-7000 ≥ 7001 Can't Say

17. Field of work : IT BPO Govt. sector higher level Govt. sector middle level Govt. sector lower level pvt. sector higher level pvt. sector middle level pvt. sector lower level

18a. Is Internet available in your home in: PC tablet mobile phone

b. Do you have (or carry) a : PC Laptop Smartphone tablet

19. Do you have a physical disability that prevents you from? riding bus using train walking more than 200 m

20. Which of the following activities did you perform regularly/frequently using your mobile phone or laptop while traveling (at least twice per week)? Work phone/email/chat music/movies/games Browse internet online shopping get Route guidance get Traffic information others _____


21a. Five years back, where was your

Home located: Same place/ _____ **Workplace located?:** Same place/ _____ / Did not work

b. Five years back, how (mode of travel) did you use to go from home to work? Two-wheeler Car MTC bus Train Office/Company bus Share auto/Maxi cab Auto Taxi Walk Bicycle Not applicable

Part I: Attitudinal and subjective questions	
1. Do you agree or disagree the following statements related to your driving behavior	
a. I enjoy the freedom and control I get from driving a personal vehicle – Agree / Disagree	
b. I do not wish to drive as I prefer to use my travel time more productively (by calling, working or work-related activities, email, chat, browse etc.) – Agree / Disagree	
c. My commute between work and home is a buffer time for me to relax, unwind and destress (by listening to music, watching movies, play games, or just relax). Agree / Disagree. My travel to work is tiring and stressful - Agree / Disagree	
e. Driving a personal vehicle helps me to spend more time with my friends and family - Agree / Disagree	
f. I like Walking or bicycling as they are good to have a physically active lifestyle - Agree / Disagree	
2. Do you agree or disagree the following statements related to externalities and policies	
a. Getting stuck in traffic does not bother me – Agree / Disagree	
b. I try to make travel decisions (means of travel, route, timing of travel) that help in reducing vehicular pollution and congestion – Agree / Disagree	
c. Separate lanes should be allotted for high occupancy vehicles – Agree / Disagree	
d. I find it boring or inconvenient to walk for more than short distances – Agree / Disagree	
e. I am willing to use more alternative means of travel (electric vehicles, public transport etc.) to save energy – Agree / Disagree	
3. Do you agree or disagree the following statements related to route/time/cost optimization	
a. I always try to pick the best among available travel options (means of travel or route) to save time or cost – Agree / Disagree	
b. I try to stick to a routine while making travel decisions such as means of travel or route – Agree / Disagree	
c. I would not change my mode of travel unless other modes are improved considerably – Agree / Disagree	
d. I am flexible in selecting travel decisions so long as I reach my destination within reasonable time – Agree / Disagree	
4. Do you agree or disagree the following statements regarding social aspects	
a. Ever since I was young, it has been my aspiration or desire to travel in my own vehicle – Agree / Disagree	
b. Most people in my social circle (friends, colleagues, relatives) have a car – Agree / Disagree	
c. I do not use public transport as I do not know/speak/read the local language – Agree / Disagree	
d. I like travelling alone: yes/ no / somewhat / not sure	
e. I am uncomfortable being around people I don't know while travelling – Agree / Disagree	
f. Riding Bus or train does not suit my status – Agree / Disagree	
Part J : Questions related to policies to improve public transport	
1. Government is considering various options to improve public transport. Which of these will be critical to you or useful to you?	
i) For improving accessibility to reach bus stops and railway stations and also access to buses and trains,	
a. <input type="checkbox"/> Share autos/ feeder bus services to reach railway stations and bus stops	e. Suppose only one of these can be implemented, which one would you prefer?: a / b / c / d
b. <input type="checkbox"/> Fully functional elevators, travelators (moving walkways) and escalators to access railway stations	
c. <input type="checkbox"/> Reduce walking distance between bus stops and railway stations	
d. <input type="checkbox"/> Reduced boarding height and footboards of buses and trains	
f. If this option is implemented, your frequency of using Bus: 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 or more times/week <input type="checkbox"/> Train: 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 or more times/week <input type="checkbox"/>	
2. For improving buses and trains operations and services,	
a. <input type="checkbox"/> Direct bus from near home to your work place	e. Suppose only one of these can be implemented, which one would you prefer?: a / b / c / d
b. <input type="checkbox"/> Higher frequency of buses and trains	
c. <input type="checkbox"/> introduce more A/c buses and A/c coaches in trains along your route to work	
d. <input type="checkbox"/> Announcement of next stop in bus and train	
f. If this option is implemented, your frequency of using Bus: 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 or more times/week <input type="checkbox"/> Train: 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 or more times/week <input type="checkbox"/>	
3. For improving the facilities inside bus stops and railway terminals,	
a. <input type="checkbox"/> Free Wi-Fi facility and cell phone charging points at all railway stations (including Metro) and bus stops and also inside the buses and trains.	e. Suppose only one of these can be implemented, which one would you prefer?: a / b / c / d
b. <input type="checkbox"/> Surveillance cameras and police patrol for better security	
c. <input type="checkbox"/> Closed and safer parking facilities at all railway stations	
d. <input type="checkbox"/> Providing mobile app for estimated time of bus and train arrival information and buy tickets via apps	
f. If this option is implemented, your frequency of using Bus: 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 or more times/week <input type="checkbox"/> Train: 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 or more times/week <input type="checkbox"/>	

Annexure 9a: Format for worker's stated preference questionnaire on Metro

Questionnaire on Metro				
Metro has been introduced in Chennai with the following characteristics, also show the map or metro mentioning the stops and route details				
	Cost	Frequency	Service duration	Parking
	Minimum fare of Rs.10 and Rs. 5 / Km	Every 10 minutes during peak hour and 5 minutes more during non-peak hours	On Weekdays: 6:00 am – 10:00 pm On Weekends: 8:00 am – 10:00 pm	2w - Rs 5 / 3hr Car - Rs 10 / 3hr
Scenario 1. Suppose you had make a trip related to your work which is 10 Km from your home and is accessible via the Metro. If the Metro train is operating under the following characteristics,				
Cost	Frequency	Feeder bus / mini-bus service	Parking at Metro station	
Base fare :Rs 5 / Km Seasonal ticket : 20 % discount	Once every <u>10</u> minutes during peak hour and 5 minutes more for non-peak hours	No feeder bus	2w - Rs 5 / 3hr Car - Rs 10 / 3hr	
a. Of the following modes of travel, which all would you choose for your work trip from home? (tick all that apply) 2w <input type="checkbox"/> Car <input type="checkbox"/> Bus <input type="checkbox"/> Train <input type="checkbox"/> Auto <input type="checkbox"/> Share auto/maxi cab <input type="checkbox"/> company bus <input type="checkbox"/> Metro <input type="checkbox"/> walk <input type="checkbox"/> bicycle <input type="checkbox"/>				
b. If you had ticked Metro, under this scenario will you buy season tickets? Y / N				
c. If you had ticked Metro, under this scenario will you use feeder bus? Y / N				
Scenario 2. Suppose you have to travel to a place with your family which is 15 Km from your home, if the Metro train is operating under the following characteristics,				
Cost	Frequency	Feeder bus / mini-bus service	Parking at Metro station	
Base fare :Rs 3 / Km Seasonal ticket : 10 % discount	Once every <u>10</u> minutes during peak hour and 5 minutes more for non-peak hours	min-bus with frequency of <u>15</u> minutes	2w - Rs 5 / 3hr Car - Rs 10 / 3hr	
a. Of the following modes of travel, which all would you choose for your work trip from home? (tick all that apply) 2w <input type="checkbox"/> Car <input type="checkbox"/> Bus <input type="checkbox"/> Train <input type="checkbox"/> Auto <input type="checkbox"/> Share auto/maxi cab <input type="checkbox"/> company bus <input type="checkbox"/> Metro <input type="checkbox"/> walk <input type="checkbox"/> bicycle <input type="checkbox"/>				
b. If you had ticked Metro, under this scenario will you buy season tickets? Y / N				
c. If you had ticked Metro, under this scenario will you use feeder bus? Y / N				
Scenario 3. Suppose you have to travel to a mall with your family and later the same day you plan to watch a movie at this mall, if the mall is accessible via Metro and is operating under the following characteristics,				
Cost	Frequency	Feeder bus / mini-bus service	Parking at Metro station	
Base fare : Rs 5 / Km Seasonal ticket : 20 % discount	Once every <u>10</u> minutes during peak hour and 5 minutes more for non-peak hours	share auto with frequency of <u>15</u> minutes	2w - Rs 5 / 3hr Car - Rs 10 / 3hr	
a. Of the following modes of travel, which all would you choose for your work trip from home? (tick all that apply) 2w <input type="checkbox"/> Car <input type="checkbox"/> Bus <input type="checkbox"/> Train <input type="checkbox"/> Auto <input type="checkbox"/> Share auto/maxi cab <input type="checkbox"/> company bus <input type="checkbox"/> Metro <input type="checkbox"/> walk <input type="checkbox"/> bicycle <input type="checkbox"/>				
b. If you had ticked Metro, under this scenario will you buy season tickets? Y / N				
c. If you had ticked Metro, under this scenario will you use feeder bus? Y / N				
Scenario 4. Suppose you have to travel to _____ (your frequent destination <u>1</u> from table) from your home, if the Metro train is operating under the following characteristics,				
Cost	Frequency	Feeder bus / mini-bus service	Parking at Metro station	
Base fare : Rs 3 / Km Seasonal ticket : 10 % discount	Once every <u>10</u> minutes during peak hour and 5 minutes more for non-peak hours	mini-bus with frequency of <u>15</u> minutes	2w - Rs 5 / 3hr Car - Rs 10 / 3hr	
a. Of the following modes of travel, which all would you choose for your work trip from home? (tick all that apply) 2w <input type="checkbox"/> Car <input type="checkbox"/> Bus <input type="checkbox"/> Train <input type="checkbox"/> Auto <input type="checkbox"/> Share auto/maxi cab <input type="checkbox"/> company bus <input type="checkbox"/> Metro <input type="checkbox"/> walk <input type="checkbox"/> bicycle <input type="checkbox"/>				
b. If you had ticked Metro, under this scenario will you buy season tickets? Y / N				
c. If you had ticked Metro, under this scenario will you use feeder bus? Y / N				

Annexure 9b: Format for worker's stated preference questionnaire on Congestion and personal vehicle

Questionnaire on congestion and personal vehicle								
<p>1. Are you planning to buy a motor vehicle in the next 2 years? a. Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> Don't know <input type="checkbox"/> b. If yes, 2wheeler / 4 wheeler c. fuel type - P / D / Electric / LPG / CNG / Hybrid d. If you plan to buy a personal vehicle in the future, will you use it regularly to go to work? Yes / No, e. If no, what mode will you choose? <input type="checkbox"/> public transport <input type="checkbox"/> paid private transport <input type="checkbox"/> Non-motorized transport <input type="checkbox"/> Don't Know <input type="checkbox"/></p>								
<p>2. Would you use your private vehicle if: (please tick)</p>	<p style="text-align: center;">If ticked, would you..</p> <ol style="list-style-type: none"> 1. Travel in your personal vehicle during non-peak periods 2. Split the fee by giving rides for your friends/family 3. Will use a driver and send the vehicle back home 4. Shift to a 2w (if you are using 4w) 5. Will park my vehicle at a distance say (0.5-1.0 Km) at a nearby street and walk to the office 6. Will appoint a driver so that you can send the vehicle back home 7. Won't change anything 	<p style="text-align: center;">If not ticked would you</p> <ol style="list-style-type: none"> 1. Split the fee by riding in my friend's/family's vehicle 2. Avoid the fee by using the company bus 3. Avoid the fee by using a bus to go to work 4. Avoid the fee by using a train to go to work 5. Avoid the fee by using app-based taxi/auto to work 6. Avoid the fee by using regular auto to work 						
<p>Scenario 1. Travel time for work is increased by ___ minutes for personal vehicle during peak hours <input type="checkbox"/></p>								
<p>Scenario 2. Congestion charges are levied for people riding 2w and 4w during peak hour <input type="checkbox"/></p>								
<p>Scenario 3. Parking charges of ___ for 2w and ___ for 4w is collected at your workplace <input type="checkbox"/></p>								
<p>3. As a measure to reduce congestion during peak hours, suppose your employer allows you to reschedule your work time or day. Which of the following is your most preferred option?</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> a. Flexible work timings (work 4 days and 40 hrs instead of 5 days and 40 hrs) <input type="checkbox"/> </td> <td style="width: 50%; border: none;"> d. Additional pay for arriving atleast 1 hour and upto 2 hours before the usual office work hours <input type="checkbox"/> </td> </tr> <tr> <td style="border: none;"> b. Flexible working days (Can choose to work on any 5 days a week) <input type="checkbox"/> </td> <td style="border: none;"> e. Rescheduling your work timings by one hour earlier or one hour later than the usual work start time <input type="checkbox"/> </td> </tr> <tr> <td style="border: none;"> c. Provision of work from home upto 10 hours a week <input type="checkbox"/> </td> <td style="border: none;"> f. None of the above <input type="checkbox"/> </td> </tr> </table> <p>If preferred option is implemented (and f is not ticked), What mode of travel would you choose in this situation: 2w <input type="checkbox"/> Car <input type="checkbox"/> Bus <input type="checkbox"/> Train <input type="checkbox"/> Auto <input type="checkbox"/> Share auto/maxi cab <input type="checkbox"/> company bus <input type="checkbox"/> walk <input type="checkbox"/> bicycle <input type="checkbox"/> Others _____</p>			a. Flexible work timings (work 4 days and 40 hrs instead of 5 days and 40 hrs) <input type="checkbox"/>	d. Additional pay for arriving atleast 1 hour and upto 2 hours before the usual office work hours <input type="checkbox"/>	b. Flexible working days (Can choose to work on any 5 days a week) <input type="checkbox"/>	e. Rescheduling your work timings by one hour earlier or one hour later than the usual work start time <input type="checkbox"/>	c. Provision of work from home upto 10 hours a week <input type="checkbox"/>	f. None of the above <input type="checkbox"/>
a. Flexible work timings (work 4 days and 40 hrs instead of 5 days and 40 hrs) <input type="checkbox"/>	d. Additional pay for arriving atleast 1 hour and upto 2 hours before the usual office work hours <input type="checkbox"/>							
b. Flexible working days (Can choose to work on any 5 days a week) <input type="checkbox"/>	e. Rescheduling your work timings by one hour earlier or one hour later than the usual work start time <input type="checkbox"/>							
c. Provision of work from home upto 10 hours a week <input type="checkbox"/>	f. None of the above <input type="checkbox"/>							

Annexure 9c: Format for worker's stated preference questionnaire on company bus and multi modal travel

Questionnaire on company bus and multi-modal travel					
Scenario 1. It has been planned that compulsory company bus/van/car facilities should be available for all company employees.					
Monthly fare	Bus arrival time at your stop	Distance of the stop from home	Waiting time at the stop		
Rs. <u>1200</u>	6:30 am	<u>250</u> m	Bus will arrive no later than <u>5</u> min from usual arrival time		
a. What mode would you choose in this situation, consider the characteristics of other services are same as they are now: 2w <input type="checkbox"/> Car <input type="checkbox"/> Bus <input type="checkbox"/> Train <input type="checkbox"/> Auto <input type="checkbox"/> Share auto/maxi cab <input type="checkbox"/> company bus <input type="checkbox"/> walk <input type="checkbox"/> bicycle <input type="checkbox"/> Others _____					
Scenario 2. Suppose the public transit services are improved along your route to work by improving the feeder bus (mini-bus or share auto) services, what would you choose for your work in this situation?					
Walking time from your home/work to the nearest feeder bus service	Cost of the feeder bus service (Flat rate)		Waiting time for the feeder bus is		
<u>2</u> minutes	Rs <u>5</u>		No more than <u>3</u> minutes		
a. What mode would you choose in this situation, consider the characteristics of other services are same as they are now: 2w <input type="checkbox"/> Car <input type="checkbox"/> Bus <input type="checkbox"/> Train <input type="checkbox"/> Auto <input type="checkbox"/> Share auto/maxi cab <input type="checkbox"/> company bus <input type="checkbox"/> walk <input type="checkbox"/> bicycle <input type="checkbox"/> Others _____					
b. If bus/train is ticked, Will you use the feeder bus service? Y / N,					
c. If Not what mode would you use to reach the public transport stop – 2w / car / bicycle / auto / share auto / walk / others					
Scenario 3. Suppose the parking facilities near the public transit stops are improved and you had to go to your friends' home which is <u>15</u> km from your home, what would you choose in this situation. Following are the characteristics of the public trnspt.					
Cost of parking for four hours		Time to reach the stop from the parking lot		Type of parking facility	
2w : Rs <u>5</u> car: Rs <u>10</u>		<u>5</u> minutes		<u>Open</u>	
a. What mode would you choose in this situation, consider the characteristics of other services are same as they are now: 2w <input type="checkbox"/> Car <input type="checkbox"/> Bus <input type="checkbox"/> Train <input type="checkbox"/> Auto <input type="checkbox"/> Share auto/maxi cab <input type="checkbox"/> company bus <input type="checkbox"/> walk <input type="checkbox"/> bicycle <input type="checkbox"/> Others _____					
b. If bus/train is ticked, how would you reach the public transport stop : 2w / car / bicycle / auto / share auto / walk / others					
Scenario 4. Suppose you had to make an essential trip to Park from your home and the direct bus service is unavailable, however there are two public transit options available, following are their characteristics.					
Bus and Bus service			Bus and Train service		
Ticket purchase	Walking and waiting time for next bus/train at transfer	Facilities at transfer	Ticket purchase	Walking and waiting time at transfer	Facilities at transfer
<u>Same ticket for both bus and train</u>	Walking time is: <u>5</u> Waiting time is: <u>7</u>	Same as now	Book via mobile app	Walking time is: <u>0</u> Waiting time is: <u>10</u>	Integrated station and bus stop with additional parking and shopping
a. What mode would you choose in this situation, consider the characteristics of other services are same as they are now: 2w <input type="checkbox"/> Car <input type="checkbox"/> Bus <input type="checkbox"/> Train <input type="checkbox"/> Auto <input type="checkbox"/> Share auto/maxi cab <input type="checkbox"/> company bus <input type="checkbox"/> walk <input type="checkbox"/> bicycle <input type="checkbox"/> Others _____					
b. If you had ticked bus or train, how would you reach the public transport stop – bus (via bus-bus service)/ bus-train service / 2w / car / auto /share auto / bicycle / others					

Annexure 9d: Format for worker's stated preference questionnaire on mobile app based auto and taxi services

Questionnaire on mobile app based taxi and auto services					
1. For your last app-based trip, kindly give the following details (do not fill if you have never travelled in app-based service)					
a. From :		To :		Distance : <2 /2 – 5/5 – 10/10 -15/15- 20/>20 Km	
b. Departure time :		Arrival time :		Waiting time for the vehicle : minutes	
c. Total cost of travel : Rs/ Nil Cost for toll if any: Rs /NA Discount (if any) : Rs. <50/ 50 – 100 /100 – 200 /> 200					
d. Type of vehicle : Auto <input type="checkbox"/> Mini A/c <input type="checkbox"/> Mini non A/c <input type="checkbox"/> Sedan A/c <input type="checkbox"/> Sedan non A/c <input type="checkbox"/> Suv A/c <input type="checkbox"/> Suv non A/c <input type="checkbox"/> Others					
e. If you had used personal vehicle for the same trip, what would be the parking cost : Rs. / DK ii) Parking distance: meter iii) Time taken to park : minutes					
f. What rating (stars) did you give for the trip? 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> Did not rate <input type="checkbox"/> Don't Know <input type="checkbox"/> Can't say <input type="checkbox"/>					
2. Under what circumstances did you make the above trip					
Unfamiliarity of origin/destination <input type="checkbox"/> Familiar driver <input type="checkbox"/> joint/group trip <input type="checkbox"/> Heavy luggage <input type="checkbox"/> unplanned /within short notice <input type="checkbox"/> Offl. trip <input type="checkbox"/> Had to make multiple-stops <input type="checkbox"/> Return home w/o personal vehicle <input type="checkbox"/> personal vehicle not available <input type="checkbox"/> Severe weather <input type="checkbox"/>					
3a. Have you rescheduled/changed the time of your trip in an app-based travel? Yes / No /NA					
b. If yes, from _____ am/pm to _____ am/pm did you change					
c. Reason for changing the time of your trip : Cost <input type="checkbox"/> Traffic congestion <input type="checkbox"/> Driver unavailability <input type="checkbox"/> others _____					
4a. Have you changed the location or made an unplanned activity stop after booking an app-based service? Yes / No					
b. If yes, what was the reason for the above? Due to cost <input type="checkbox"/> Due to weather <input type="checkbox"/> to pick-up someone <input type="checkbox"/> not available <input type="checkbox"/> other _____ <input type="checkbox"/>					
5a. Have you ever considered an app-based travel but could not book for some reason – Yes / No,					
b. If yes, what did you do? Changed my mode of travel <input type="checkbox"/> Cancelled my trip <input type="checkbox"/>					
c. If you have changed your mode of travel, what mode did you choose? 2w <input type="checkbox"/> car <input type="checkbox"/> bus <input type="checkbox"/> train <input type="checkbox"/> auto <input type="checkbox"/> share auto <input type="checkbox"/> call taxi <input type="checkbox"/> other <input type="checkbox"/>					
6. How frequently would you make trips on app-based travel service trips ...?					
a. If promotional offers are available: Daily <input type="checkbox"/> Weekly (1-2) <input type="checkbox"/> Monthly (1-2) <input type="checkbox"/> Rarely <input type="checkbox"/>					
b. If promotional offers are not available: Daily <input type="checkbox"/> Weekly (1-2) <input type="checkbox"/> Monthly (1-2) <input type="checkbox"/> Rarely <input type="checkbox"/>					
7a. Have you referred any friend or family member to register with any of these services: Yes / No					
b. If yes, how many referrals? Less than 2/ 2 – 5/ More than 5					
c. Has there been any improvements in the subsequent trips based on your feedbacks? Yes / No / NA / DK					
What will you consider under the following scenarios					
Scenario 1	Suppose you and your family have to make a trip to a shopping mall (or cinema theatre) which is 15 Km from your home. There is an app-based taxi/auto service. Assume all other modes (bus, train, auto etc.) operate as they do now.				
Vehicle type	Cost of travel	Peak hour surcharge	Promotional offers	Waiting time until pick-up	Security
Auto	Rs 50, first 5 Km Rs 8, per Km	1.25 * Base fare	25 % discount on this ride	5 minutes	Normal
How would you make this trip? Auto <input type="checkbox"/> Share auto <input type="checkbox"/> call taxi <input type="checkbox"/> app-based service <input type="checkbox"/> hire a driver <input type="checkbox"/> rent a car <input type="checkbox"/> 2w <input type="checkbox"/> car <input type="checkbox"/> bus <input type="checkbox"/> Train <input type="checkbox"/>					
Scenario 2	Suppose you had to go to the Airport to catch a flight and you have heavy luggage. There is an app-based taxi/auto service. Assume all other modes (bus, train, auto etc.) operate as they do now.				
Vehicle type	Cost of travel	Peak hour surcharge	Promotional offers	Waiting time until pick-up	Security
Mini	Rs. 100 first 5 Km Rs 8 per Km	1.5 * Base fare	50 % discount on this ride	5 minutes	Normal
How would you make this trip? Auto <input type="checkbox"/> Share auto <input type="checkbox"/> call taxi <input type="checkbox"/> app-based service <input type="checkbox"/> hire a driver <input type="checkbox"/> rent a car <input type="checkbox"/> 2w <input type="checkbox"/> car <input type="checkbox"/> bus <input type="checkbox"/> Train <input type="checkbox"/>					
Scenario 3	It is now 9:00 pm, suppose you had to meet a client related to your work at a location not familiar to you, There is an app-based taxi/auto service. Assume all other modes (bus, train, auto etc.) operate as they do now.				
Vehicle type	Cost of travel	Peak hour surcharge	Promotional offers	Waiting time until pick-up	Security
Sedan	Rs. 150 first 5 Km Rs 8 per Km	1 * Base fare	No discount on this ride	5 minutes	Normal
How would you make this trip? Auto <input type="checkbox"/> Share auto <input type="checkbox"/> call taxi <input type="checkbox"/> app-based service <input type="checkbox"/> hire a driver <input type="checkbox"/> rent a car <input type="checkbox"/> 2w <input type="checkbox"/> car <input type="checkbox"/> bus <input type="checkbox"/> Train <input type="checkbox"/>					

Annexure 10: Check list for commercial bid

To be filled and submitted as a part of the Commercial bid.

Sno.	Attachments	Description	Included (Yes/No)	Page no. in the bid document
1	Annexure 12	Commercial bid including Bill of quantities		

Annexure 11: Check list for technical bid

To be filled and submitted as a part of the Technical bid.

Sno.	Attachments	Description	Included (Yes/No)	Page no. in the bid document
1		Certificate of Incorporation , Refer section 2, serial no. 1		
2		Certificate of Incorporation or Sales tax certificate or Certificate issued by any other government authority. Refer section 2, serial no. 2		
3		Certificate from current authorized signatory of the bidder. Refer section 2, serial no. 6		
4	Annexure 1	Letter of submission of bid		
5	Annexure 2	Business Details		
6	Annexure 3	Details of Turnover		
7	Annexure 4	Details of Similar work done		
8	Annexure 5	Details of Key & Other personnel		
9		CV of the key personnel, Refer section 5.4.2.4		
10	Annexure 6	Declaration that the bidder has not been blacklisted		
11	Annexure 7	Project implementation schedule		
12		Self-declaration on simultaneous execution of multiple household transportation survey projects as per section 3		

Annexure 12: Format for Commercial bid including Bill of Quantities

For zones 1 to 12

Tender Reference no. _____

Part	Description	Unit	Unit Rate (INR)
1	To conduct Worker's Mode Choice Survey		
1. a	Survey Material Cost	Per completed household	
1.b	Cost per enumerator / surveyor	Per completed household	
1.c	Other Manpower cost (personnel involved in the survey)	Per completed household	
1.d	Compensation for opportunity cost for responding to the worker's mode choice survey (must not be less than 100 Rs.)	Per completed household	
1.e	Transport and Logistics	Per completed household	
2	Data digitization	Per completed household	

Cost for worker's mode choice survey and data digitization for one completed household (part 1 + part 2) = _____ **INR**

Estimated cost for 3000 completed households

Sno.	Description	Unit	Amount (INR)
1	Total (sum of worker's mode choice survey & Data digitization)	3000 completed households	
2	Applicable taxes and duties (Mention as percentage of Sno.1)	%	
Total Cost (in Figures)			

Note:

1. Price inclusive of taxes and duties and all other costs excluding service tax
2. Data Digitization Includes Coordination, Data Entry, Quality verification and Submission in electronic format.
3. Survey Includes Data collection, Data Entry and Submission.
4. The cost is all-inclusive of all the costs of the infrastructure, deliverables, etc. for data entry of records.

Place:

Bidder's signature

Date:

and seal.