



REQUEST FOR PROPOSAL (RFP)
FOR
CONSULTANCY SERVICES FOR TRAFFIC &
TRANSPORTATION STUDY AND SOCIO-ECONOMIC
SURVEY FOR MASTER PLAN OF RAJGIR REGIONAL
PLANNING AREA AND WORLD HERITAGE SITE OF
NALANDA MAHAVIHARA, BIHAR

February, 2024

Executive Director (Construction & Consultancy & Wing)
Housing & Urban Development Corporation Limited,
IV Floor, HUDCO Bhawan, Core 7-A,
India Habitat Centre, Lodhi Road, New Delhi – 110 003
An ISO 9001: 2015 Certified Company

www.hudco.org

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Tender Title: Request for Proposal (RFP) for ‘Consultancy services for Traffic & Transportation Study and Socio-economic Survey for Master Plan of Rajgir Regional Planning Area and World Heritage Site of Nalanda Mahavihara, Bihar’ as detailed in the Scope of Work.

Tender No: HUDCO/C&P_MPRRPA/101/2

The schedule of Bidding Process shall follow the events as detailed in **Table 1.1**

Table 1.1 Schedule of Bidding Process

S. No.	Event Description	Date/Time
1.	Date of Publication of Newspaper Advertisement	09-02-2024
2.	Pre-bid meeting/clarifications	(As per Section 3 Clause 3.3)
3.	Last date of submission of proposals on GeM Portal: https://gem.gov.in	01-03-2024 3:00 P.M.
4.	Date of opening of EMD, Pre-qualification Proposals and Technical Proposals	01-03-2024 3:30 P.M.
5.	Date of Opening of Financial Proposals	Shall be intimated after Evaluation of Technical Proposals
6.	Validity of Proposals	180 days from the Due Date of submission of proposals/ bids
7.	Signing of Agreement	Within 15 days from the issue of LOA
Other details		
EMD		Rs 15,000/- (Rupees Fifteen thousand only)
Estimated fee		Rs. 14,16,000/- inclusive of applicable GST (Rupees Fourteen Lakhs Sixteen Thousand only)

For further information:

Executive Director (C&C)

Housing & Urban Development Corporation Limited,

IV Floor, HUDCO Bhawan, Core 7-A,

India Habitat Centre, Lodhi Road, New Delhi – 110 003

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1 Letter of Invitation for Proposals

File No. HUDCO/C&P_MPRRPA/101/VI

Date:09-02-2024

Letter of Invitation

for

Appointment of Consultant for ‘Consultancy Services for Traffic & Transportation Study and Socio-economic Survey for Master Plan of Rajgir Regional Planning Area and World Heritage Site of Nalanda Mahavihara, Bihar’ as detailed out in Scope of Work

To,

Prospective bidders

1. Housing & Urban Development Corporation Limited (HUDCO), through Executive Director (C&C) invites proposals from Consultancy firms to provide **‘Consultancy Services for Traffic & Transportation Study and Socio-economic Survey for Master Plan of Rajgir Regional Planning Area and World Heritage Site of Nalanda Mahavihara, Bihar’ as detailed out in the Scope of Work.**
2. The ‘Terms of Reference’ for the Consulting Services are provided in Section 2 of the ‘Request for Proposal’ (RFP)
3. A firm will be selected under 4 stage method and procedure described in this RFP. This RFP includes the following Sections:
 - Section 1 –Letter of Invitation for Proposals
 - Section 2 - Terms of Reference
 - Section 3 –Information to Consultants
 - Section 4- Annexures
4. The last date for receipt of proposals shall be **01/03/2024, till 3:00 P.M.**
5. HUDCO reserves the right to accept or reject any or all proposals, and to annul the selection process and reject all proposals at any time prior to the award of contract, without thereby incurring any liability or any obligation in any form to the affected firms on any grounds.

Yours Sincerely,

Executive Director (C&C)

Housing & Urban Development Corporation Limited,

IV Floor, HUDCO Bhawan, Core 7-A,

India Habitat Centre, Lodhi Road, New Delhi – 110 003

2 Terms of Reference (TOR)

2.1 Introduction

Housing and Urban Development Corporation Ltd (HUDCO) an existing company under the Companies Act, 2013 and a Government of India undertaking having its registered Corporate Office at HUDCO Bhawan, Core 7-A, India Habitat Centre, Lodhi Road, New Delhi-110003, is inviting proposals from qualified and experienced Individual Consultant/ Consultancy Firms, Govt. Agencies, PSUs, CPSUs, academic institutions of repute, having offices in India for carrying out Traffic & Transportation Study and Socio-economic Survey for Master Plan of Rajgir Regional Planning Area (RRPA) and World Heritage Site of Nalanda Mahavihara, Bihar. The total site area in which the study is to be carried out is approximately 413.46 sq. km. Out of the total 413.46 sq.km, urban area is approx. 151.28 sq.km comprising of 5 urban centres viz. Rajgir Nagar Parishad, Silao, Nalanda, Giriak and Pawapuri Nagar Panchayats and rural area is approx. 262.18 sq.km.

2.2 Scope of Work

The consultant shall conduct necessary primary surveys & collection of secondary data for the study, as per the requirements indicated in the RFP document. The consultant will be responsible for

- Conduction of Socio-Economic & Transportation related surveys, Collection of data and its submission in the required formats (See Section 4, Annexure 4.18 to 4.27 for survey formats)
- Submission of Traffic & Transportation study with proposals in consultation with HUDCO

Study output will include compilation and analysis of socio-economic survey & traffic data as collected from various primary surveys & secondary sources and proposal of a sustainable transportation system with due consideration and special emphasis to heritage and tourism, religious and cultural events, environment, disaster prevention & mitigation, regional linkages, & projections and proposals for future planning. The analysed data report and proposals will be submitted in soft and hard copies by consultant to HUDCO, as per stages & timelines given in the RFP document.

The consultant will depute a nodal officer to work in close coordination with HUDCO officials who will be responsible for onsite procedures and activities including primary/field surveys.

Objectives:

The main goal of the study is to provide short, medium and long-term strategy for the desirable mobility pattern of the region's populace which will be part of the Master Plan of the region.

To achieve this goal the following are the main objectives:

- To understand the demographic composition of the populace through primary socio-economic & transportation study
- To understand present circulation along and around the urban centres of RRPA with special emphasis on the major tourist attractions.
- To promote integrated landuse and transport planning with due recognition to functional character of the region
- To identify feasible short term, medium term and long-term traffic management

measures and transport infrastructure need to facilitate safe and efficient movement of people for the present and future. (Projected population figures to be shared by HUDCO)

- Suggest improvements and promote cost-efficient and environment friendly transport facilities for the region with special emphasis on urban centres.
- Propose a comprehensive solution to decongest area around World Heritage Site of Nalanda Mahavihara and Kund area of Rajgir with focus on improvement of circulation and transportation infrastructure.
- Prepare Thematic Maps to convey the transport issues and solutions (Existing land use map to be provided by HUDCO)

The following tasks are involved in the work:

A. Task 1: Inception Report

Consultant has to identify and propose traffic survey locations methodology and socio-economic survey approach and the same should be listed in the inception report. The inception report shall include the following, but not limited to:

- Site understanding
- Approach and methodology of the study
- Project understanding
- Identification of survey locations
- Identification of the data sources
- Detailed work schedule and survey plan

The consultant must prepare a clear description of key personnel and other support team and details of all the surveys to be carried out as part of the study. The survey plan should describe the number of survey locations, schedule, sampling approach and staffing plan for each survey.

The Consultant will prepare layouts of survey locations at all cordon points. Each survey location will have one survey team (comprising of minimum two enumerators) for making observations and recording information.

Prior intimation to the Traffic Police and soliciting their support for conducting the survey will be the responsibility of the Consultant. The inception report should include all the survey forms finalized in consultation with HUDCO. Any change in the survey formats provided in Annexure 4.18 to 4.27 may be finalised in discussion with HUDCO.

B. Task 2: Traffic & Transportation and Socio-economic Surveys

Summary of Tentative number of survey locations and number of samples to be collected during surveys at site is as follows.

S no.	Type of survey	Tentative no. of survey locations	Sample to be collected	Minimum requirements for Surveys
1.	Road Network Inventory Survey	To be given by consultant in inception report as per Task 1	Along all the NHs, SH, Bypasses, MDRs, ODRs, important city & village roads	Data to be collected as per survey formats given in the Annexure 4.26
2.	Classified Traffic Volume Count at Outer cordon points, Inner cordon points and Screen Lines (CTVC)		100%	At mid-blocks and screen lines in the study area for 1 day (continuous for 16 hours - 06:00 A.M. to 10:00 P.M., direction-wise) using Manual Method. Data to be collected as per survey formats given in the Annexure 4.18
3.	Classified Turning Movement Surveys at Major Junctions/Intersections		100%	At major junction and intersection in the study area for 1 day (16 hours (06:00 A.M. to 10:00 P.M), direction-wise) (see Annexure 4.19)
4.	Origin - Destination Survey		10% of Volume count*	At Outer and Inner cordon points for 1-day (24 hours, direction-wise). (see Annexure 4.20)
5.	Speed and Delay Survey		Along all the NHs, SH, Bypasses, MDRs, ODRs and Major city roads	Surveys during peak and off-peak hour along the roads in the study area. The data should be collected as per the survey formats given in the Annexure 4.25
6.	Parking Survey		100%	At on-street and off-street parking locations for 1 day (working day) 12 hours from 08:00 Hrs to 20:00 Hrs (see Annexure 4.21 and Annexure 4.22)
7.	Passenger OD Survey at Bus terminal, Railway station and Intermediate Public Transport (IPT) stands		1 in 10 passengers	At major bus stands, railway stations and IPT stands for 1 day (continuously for 16 hours - 06.00 A.M. to 10.00 P.M.). (see Annexure 4.23)
8.	Bus/Auto/Intermediate Public Transport (IPT) Operator Survey		1 in 10 operators/drivers*	At major bus stands, railway stations and IPT stands for 1 day (continuously for 16 hours - 06.00 A.M. to 10.00 P.M.) (see Annexure 4.24)
9.	Household Socio-economic Survey	38 Gram Panchayats and 5 Urban Local Bodies	800 samples i.e. (700 + 100**) (1% sample of Total households in urban areas and 1% sample of total households in rural areas)	Survey to be conducted using Stratified Random Sampling method wherein the survey of 1% of the total households in urban areas and 1% of the total household of each Gram Panchayat in rural areas shall be carried out. Additionally, 100 samples shall also be collected from villages surrounding Nalanda Mahavihara World Heritage Site (Bargaon, Surajpur, Mohanpur and Begampur). The data should be collected as per the survey formats given in the Annexure 4.27.

*Note 1: *Samples to be collected proportionate to the volume of Bus/Auto/ Intermediate Public Transport such as Tonga, E-rickshaw, Cycle rickshaw, Van/Jeeps etc. as collected in CTVC survey.*

*Note 2: ** 100 samples may additionally be collected from villages of Bargaon, Surajpur and Mohanpur in the Nalanda Nagar Panchayat.*

Note 3: Exact number and locations for traffic and transportation survey shall be finalised in consultation with HUDCO as detailed in task 1 after issuance of LOA/ Work order.

Note 4: Give complete name for NH, SH, MDR, ODRs etc.

Additionally, the consultant shall also depute a qualified professional to be available full-time during the study duration with HUDCO for:

- Review of survey formats
- Finalization of survey locations
- Work plan
- Study update
- Data verification
- Data analysis and its presentation in required formats

The studies, surveys, investigations, analysis, proposals and reports shall be based on relevant provisions of IRC Standards, Codes, and Special Publications (with latest amendments); URDPFI Guidelines-2014; AMRUT Standards; BUPD act/rules-2012; MoRTH and MoHUA specifications/ circulars/guidelines/ toolkits etc.

The consultant shall be responsible for curation of the primary survey as per the approved inception report in Task I. Type of primary/field surveys pertaining to Traffic & Transportation and Socio-economic survey to be taken up by consultant on a typical working day to analyse the traffic & travel characteristics and expected outputs from the same.

The filled-in survey formats given in the Annexure 4.16 to Annexure 4.26 (hard copy duly signed by surveyors) should be submitted by the end of the surveys. Survey data of all the surveys should be compiled and furnished in a Master Sheet/spread sheet in Microsoft Excel file(.xlsx).

i. Road Network Inventory Survey

Road network inventory survey on all major roads such as National Highways (NH), State Highways (SH), By-passes, Major District Roads (MDRs), Other District Roads (ODRs) and important city/village roads/ streets etc.

ii. Classified Traffic Volume Count at Outer cordon points, Inner cordon points and Screen Lines

The classified traffic volume count surveys at mid-blocks and screen lines shall be carried out for **1 day (continuous for 16 hours - 06:00 A.M. to 10:00 P.M., direction-wise) using Manual Method**. The vehicle classification system as given in relevant Indian Road Congress (IRC) code may be followed.

iii. Classified Turning Movement Surveys at Major Junctions/Intersections

The traffic movement surveys shall be carried out at major junction and intersection in the study area for 1 day (16 hours (06:00 A.M. to 10:00 P.M), direction-wise) at major Junctions/Intersections.

iv. Origin - Destination Survey

The consultants shall carry out 1-day (24 hours, direction-wise) Origin- Destination (O-D) surveys at Outer and Inner cordon points.

v. Parking Survey

Parking survey (on-street and off-street) would be carried out along the identified stretches/locations to collect the details about parking accumulation, peak parking index and parking turnover. Inventory and location of the parking lots/stretches shall be

finalised in consultation with HUDCO.

vi. Passenger OD Survey at Bus terminal, Railway station and Intermediate Public Transport (IPT) stands

Passenger OD surveys shall be carried out at major bus terminals/stops, Railway station and IPT stands. The survey will be carried out at major bus stands, railway stations and IPT stands for 1 day (continuously for 16 hours - 06.00 A.M. to 10.00 P.M.).

vii. Bus/Auto/Intermediate Public Transport (IPT) Operator Survey

Bus driver and IPT operator surveys are to be carried out at identified bus terminals/depots and IPT stops/stands. The survey locations shall be finalized in consultation with HUDCO.

viii. Speed and Delay Survey

The Consultants shall carry out appropriate field studies on all the relevant stretches to determine running speed and journey speed. The consultant shall carry out speed and delay surveys during peak and off-peak hour.

ix. Household Socio-economic Surveys

Household Socio-economic survey of approx. 1% of the total 69,247 households i.e. approx. 700 samples in the planning area is required to be carried out. Additionally, 100 samples shall also be collected from villages surrounding Nalanda Mahavihara World Heritage Site.

C. Task 3: Traffic and Transportation Study

The study outputs include compilation and analysis based on the primary as well as secondary information/data collected and submission of report in both soft copy and two set of hard copy. An analysis of the transport and traffic situation should be carried out identifying characteristics, issues and its solutions/proposals in the Rajgir Regional Planning Area. The output data and analysis are desired as below:

- i. Daily & peak hour (morning, evening & midday) classified traffic turning movements at identified junctions and directional movement at mid blocks, screen lines and outer cordons in terms of numbers and PCUs.
- ii. Composition of traffic, directional distribution and hourly variation
- iii. Daily and peak hourly travel demand on the surveyed road sections.
- iv. Volume/ Capacity Ratio and level of service of roads and junctions/intersections in the study area.
- v. Factors affecting level of service of roads & junctions and their solutions
- vi. Identification of major intersections and roads with congestion, areas prone to accidents and needing junction improvement.
- vii. Identification of requirements of suitable remedial measures, such as construction of underpasses, fly-overs, interchanges, grade separated intersections. Intersections and roads with high traffic volume requiring special treatments either presently or in future shall be identified.
- viii. Origin-Destination survey analysis for outer & inner cordons locations (passenger and goods vehicles). Overall and location wise information of Trip length, Trip

- purpose, Trip time, Number of passengers, Commodity type and load.
- ix. Outer cordon traffic analysis in terms of traffic volume and travel pattern.
- x. Details about availability of parking space, parking accumulation and parking duration for peak period.
- xi. Parking demand assessment and requirements.
- xii. Origin – destination, operator survey analysis for various bus, rail, IPT stops and other road side locations.
- xiii. Travel pattern of Bus/Rail/IPT passengers
- xiv. Other travel characteristics of intercity passengers/ tourists etc.
- xv. Operation and financial details of private bus and IPT operators.
- xvi. A brief study on Tonga and E-rickshaw services in Rajgir, Nalanda, Pawapuri, and Ghora katora mentioning its usage, route, income, employment, environmental considerations etc.
- xvii. Traffic forecast on major roads (till horizon year of 2040)
- xviii. Identification of need for widening of major roads and other infrastructure.
- xix. Special issue of traffic & transportation in and around World Heritage Site of Nalanda Mahavihara.
- xx. Issues with regard to transportation for tourists

D. Task 4: Proposals and Recommendations

- i. Prepare Road Network Development Plan for the whole RRPA for the horizon year of 2040 – Future transport network (existing & additional network), Proposed hierarchy of roads, Existing Road network improvements, New Ring Roads/ Expressways/ Highways, establishing new links/roads, New Bridges/flyovers/underpasses etc.
- ii. Proposed typical cross-sections for the existing and new roads.
- iii. Public Transport Improvement Plan should be developed including routes, services, facilities and infrastructure. The proposed system should be a hierarchical one differentiating among local and higher order, ie., trunk services, stations/stops locations, general location of terminals and depots should be included. Proposed routes for the trunk system (eg., Bus system/LRT/BRT/Metro) should also be included.
- iv. Proposed location, plan and area of Airport/ Railway stations and yards, Intermodal Facilities (public transport terminals and truck terminals) and other circulation infrastructure like freight corridors etc. as part of the overall master plan of RRPA and smooth traffic movement.
- v. Mobility management measures like Parking Plan; Traffic Control Measures; Intersection/junction Improvement; TDM Measures; Traffic Safety Plan; Paratransit Facility Plan; Non-Motorized Transport facilities and technological measures; Intelligent Transport System (ITS).
- vi. Explore the potential of e-vehicles as component of both private & public transportation system in RRPA
- vii. Proposed location of Alternate routes, bypasses, Parking sites with size (area & no. of parking), sustainable and green transport infrastructure facilities in and around the World Heritage Site of Nalanda Ruins, and for stretches of the urban areas

- including towns of Rajgir, Pawapuri, Giriak and Silao considering heritage conservation as well as tourism development factors.
- viii. Proposals to decongest area around World Heritage site of Nalanda Mahavihara with focus on improvement of circulation and transportation infrastructure.
 - ix. All proposals around the World Heritage Site of Nalanda Mahavihara ruins and other Heritage Sites of Rajgir Regional Planning Area shall be made in consultation with Heritage Conservation Expert/ASI/Nalanda District Administration.
 - x. Estimated costs, source and phasing of proposed projects/recommendations
 - xi. Marking and submission of necessary survey analysis/existing/proposed road network & facilities improvement plan in GIS shapefile format.
 - xii. Address the sustainability concerns in the transportation sector and provide solutions accordingly

2.3 Time Schedule and Deliverables

The entire project is expected to be carried out as per the timelines given in **Table 2.1**:

2.3.1 Finalisation of survey locations for Traffic & Transportation survey and Socio-economic survey formats in consultation with HUDCO and commencement of field survey shall be done within 15 days of date of issuance of Letter of Award (LOA)/Work order. The deliverables should meet the objectives/requirements set-out in the Scope of Work.

T = Date of Issuance of LOA/Work order.

Table 2.1: Time Schedule and Deliverables

Stage	Deliverable	Submission Type	Timelines
1	Submission of Inception Report, Mobilisation of team and initiation of field survey on site.	One Hardcopy and Soft copy: Inception report word/pdf format in CD/pendrive.	T +15 days
2	Submission of Raw and Final traffic and socio-economic survey data in master sheet in xlsx. format.	Hardcopy: Duly filled formats of all surveys/ questionnaires in hardcopy duly signed by the surveyor. Softcopy: Compiled and presented in Master sheet in xlxs format in CD/pendrive.	T+30 days
3	Submission of Draft Traffic and Transportation study report with proposals and recommendations.	One Hardcopy and Softcopy: Traffic and Transportation study report in word and pdf format.	T+45 days
4	Submission of Final Traffic and Transportation study with proposals/ recommendations.	One Hardcopy and Softcopy: Final Traffic and Transportation study with proposals/recommendations in GIS shapefiles, Word and .pdf format.	T+60 days

Note 1: Activities/Surveys which can be undertaken simultaneously shall be done to complete the consultancy services as per the desired timelines.

Note 2: If there are any revisions of any detail in any of the survey location/data/analysis/report for any reason, same shall be done without any extra charge.

Note 3: The Consultant may be required to prepare any other survey data analysis required for the work.

Note 4: All the reports and data collected by the consultant would become the intellectual property of HUDCO and these shall be submitted by the consultant to HUDCO in the form collected along with respective submissions, These shall not be used by the consultant for assignments/works other than the said project or shared with any individual or organisation by the consultant without prior permission in writing from HUDCO.

Note 5: Any suggestion/correction should be incorporated and submitted in 3 days' time from the date of submission of respective deliverables/ HUDCO's comments.

2.4 Terms for Provision of the Services and Reporting

- 2.4.1 The consultant will correspond with and report to the concerned authorized official from HUDCO.
- 2.4.2 The consultant shall strictly adhere to the timelines provided in the Table 2.1 of the RFP.
- 2.4.3 The consultant will conduct itself in a professional and ethical manner and will ensure that none of its actions have an adverse effect on HUDCO.
- 2.4.4 The consultant shall deploy various key professionals as per Table 3.6 for field and desk activity, who shall work in close coordination with HUDCO officials.
- 2.4.5 A trained and experienced Supervisor shall be present at all times at all the survey locations.
- 2.4.6 As mentioned in the survey plan, the mentioned number of enumerators shall be placed at all the survey locations for all the days of the surveys.
- 2.4.7 All the survey forms in hard copies for conducting all traffic surveys and stationery items (pens, pads etc.) shall be procured by the consultant; based upon the softcopy of the survey format provided by the Client
- 2.4.8 All the necessary infrastructure and safety precautions required for smooth conduct of surveys such as safety jackets, lighting (for night times or low light conditions), temporary seating arrangements, tents, traffic cones, batons, etc. should be provided by the consultant and it is the responsibility of the consultant to maintain the same for the whole duration of the surveys.
- 2.4.9 All the traffic survey enumerators and supervisors should be well trained and experienced before the start of each survey. The mandatory age of all the enumerators shall be minimum as prescribed and applicable by the local laws.
- 2.4.10 Manpower deployment should be as per commitment. HUDCO reserves the right to conduct checks at random, and in case of any discrepancy or HUDCO is not satisfied with the quality of the data, the consultant would have to repeat that particular survey on the same day of the week and the cost of the repeated survey shall be borne by the consultant.
- 2.4.11 Data Coding and punching in MS Excel has to be done for all the traffic surveys in the English language only and submitted vide e-mail and CD/Pendrive within the stipulated time agreed prior to the commencement of survey.
- 2.4.12 The cost of local conveyance (to and fro from survey locations), food and any other daily allowance of all the Supervisors and enumerators shall be borne by the consultant.

2.4.13 Survey schedule and contact numbers of the deployed team should be communicated to the Client (HUDCO) at least 3 days prior to commencement of the survey.

2.4.14 Consultant team should follow the checklist given below at all the time of the traffic survey.

Traffic Survey Checklist	
1	Enumerators should be clearly briefed and tested about category of vehicle and its identification, that they are counting and interviewing (OD survey)
2	Survey locations should be set up on either side of the road to cater to each direction of traffic
3	Survey is to be carried out with relievers (already considered in the manpower requirement) at all locations - to cover during breaks/shifts
4	Frequent checks to be done to ensure that enumerators are completely aware of the category of vehicle that are counting
5	Coded and punched data shall be sent to HUDCO in English language only

2.5 Terms and Schedule of Payment.

2.5.1 For carrying out the scope of work to the entire satisfaction of HUDCO, the consultant shall be paid the lumpsum Fee (plus applicable GST) as per the following schedule of payment mentioned in **Table 2.2**.

Table 2.2: Payment Schedule

S no.	Stage of work	Payment Schedule
1	After successful completion and approval of Stage – 1 of Time schedule and deliverables as detailed in Table 2.1	10% of the fee payable
2	After successful completion and approval of Stage – 2 of Time schedule and deliverables as detailed in Table 2.1	30% of the fee payable less the payment already made
3	After successful completion and approval of Stage – 3 of Time schedule and deliverables as detailed in Table 2.1	60% of the fee payable less the payment already made
4	After successful completion and approval of Stage – 4 of Time schedule and deliverables as detailed in Table 2.1	90% of the fee payable less the payment already made
5	Final Payment after final approval and notification of the master plan	100% of the fee payable less the payment already made

*Note 1: 10% of the fee payable at each payment interval/stage shall be retained as performance security deposit, which shall be paid at the end of the project in the manner as contained in **sub clause 3.7.2** hereunder.*

2. Payment to the consultant shall be made on production of bill for the stage, after receipt of payment from Urban Development & Housing Department, Govt. of Bihar.

2.5.2 The Consultant may be required to attend meetings and/or make presentations as and

when required by HUDCO at Patna/Biharsharif/Rajgir. Number of visits to Patna/Biharsharif/Rajgir shall be limited to 4 visits. No extra cost shall be paid for the aforesaid travel.

- 2.5.3 The fee quoted should be all inclusive and shall include all charges i.e. all taxes (except GST which will be paid extra), duties, levies, out of pocket expenses, TA/DA, procurement cost, professional fee, vetting charges etc. and nothing extra shall be payable by the HUDCO.
- 2.5.4 The fee shall be inclusive of fees payable by the Consultant for any other services, products etc. procured by the consultant for the project including software License cost, if any.
- 2.5.5 The Consultant shall have to make all the necessary arrangements for the staff for out station visits at their own cost.
- 2.5.6 Consultant shall acquaint itself with all the legislation and standards prescribed from time to time.
- 2.5.7 HUDCO reserves the right to curtail any part of scope of work depending on its requirement. Accordingly, fee will be reduced proportionately.

3 Information to Consultants

3.1 Instructions to Bidders

- a) The bids shall be submitted online on GEM portal before the last date and time of submission. Only on receipt of valid EMD or valid EMD exemption document, the prequalification and technical bid shall be opened and evaluated as per criteria given in the detailed tender/bid document (section 3) to the satisfaction of HUDCO. The financial bid of only those bidders who are technically qualified, will be opened. Evaluation will be done as per the criteria indicated under the proposal evaluation.
- b) The Proposals should be prepared strictly as per terms & conditions failing which the bid is liable to be rejected without any further notice.
- c) The bidder shall also submit the duly stamped and signed scanned copy of complete RFP document along with other schedules/annexures on GEM portal.
- d) All the bidding schedules/annexures which shall be identified as mandatory by HUDCO have to be filled in compulsorily. The Proposal will be rejected if all the mandatory bidding schedules are not filled up and signed by the authorized representative of the bidder. Bidders have to provide clarifications through email or as physical documents if required, for proper evaluation of bids.
- e) The fee quoted should clearly specify the cost and GST amount. The lumpsum fee should be quoted in **Table 4.16** given in **Annexure 4.17**. No extra cost will be paid on account of transportation, insurance, packaging & forwarding or any other account including budget levies, if any. Please note that no other alternate items(s) will be considered.
- f) Proposals are to be submitted online on GEM Portal on or before prescribed last date and time. HUDCO shall not be responsible for non-submission of bids in time. No communication in this regard shall be entertained.
- g) Bidders who are registered with MSME may also participate in the bidding as notified by the Ministry of Micro, Small and Medium Enterprises, Govt. of India. No EMD shall be payable by these bidders provided that they are registered on the date of opening of this tender under single point registration scheme of NSIC/udyogadhaar/other schemes under MSME/other documented eligibility as per concerned state. Relaxations as announced by Govt. from time to time shall be applicable to these bidders subject to full compliance of other terms and conditions of the tender and contract. Product range mentioned in such certificate should be similar to requirements of this RFP. Valid documentary evidence of MSME's registration is to be submitted.
- h) The sellers/ agency shall follow the link for reading the training module for GEM participation as follows:

S. no	Module	Link for Training Module
1	Introduction to Seller/ Service Provider Functionality	https://assets-bg.gem.gov.in/resources/upload/shared_doc/training_content/Introduction-Seller-Functionality-v1-1652261184.pdf
2	Seller/ Service Provider Registration Using PAN	Using PAN https://assets-bg.gem.gov.in/resources/upload/shared_doc/training_content/Seller-Registration-Using-PAN-v1-1652261232.pdf Using Aadhaar https://assetsbg.gem.gov.in/resources/upload/shared_doc/training_content/Seller-Registration-Using-Adhaar-v1-1652261280.pdf
3	Profile Updation (Seller/Service Provider)	https://assets-bg.gem.gov.in/resources/upload/shared_doc/training_content/Seller-Profile-Updation-Approved-07th-Feb-2022-1657021156.pdf
4	Secondary User Creation	https://assets-bg.gem.gov.in/resources/upload/shared_doc/training_content/Secondary-User-Creation-Seller-v2-1652261408.pdf
5	Overview of Dashboard – Seller/Service Provider	https://assets-bg.gem.gov.in/resources/upload/shared_doc/training_content/Seller-Dashboard-v2-1652261449.pdf
6	Vendor Assessment	https://assets-bg.gem.gov.in/resources/upload/shared_doc/training_content/Vendor-Assessment-Approved-16th-Feb-2022-1657021088.pdf
7	Bid Participation Services	https://assets-bg.gem.gov.in/resources/upload/shared_doc/training_content/Bid-Participation-Services-v2-1652262839.pdf
8	Earnest Money Deposit (EMD) Process	https://assets-bg.gem.gov.in/resources/upload/shared_doc/training_content/EMD-Requirements-Seller-v1-1652262911.pdf
9	Bill of Quantities [BoQ] – Seller	https://assets-bg.gem.gov.in/resources/upload/shared_doc/training_content/Item-Wise-BOQ-seller-v2-1652262676.pdf

The bidders are required to submit soft copies of their bids electronically on the GeM Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the GeM Portal, prepare their bids in accordance with the requirements and submitting their bids online on the GeM Portal.

More information useful for submitting online bids on the GeM Portal may be obtained at: <https://gem.gov.in>.

i) Assistance to bidders

- i. Any queries relating to the RFP document and the terms and conditions contained therein should be addressed to the RFP Inviting Authority for a RFP or the relevant contact person indicated in the RFP.
- ii. Any queries relating to the process of online bid submission or queries relating to GeM Portal in general may be directed to the 24x7 GeM Portal Helpdesk.
Toll Free Numbers (Inbound): Call 1800-419-3436 / 1800-102-3436
(9:00 am - 10:00 pm Mon to Sat)
Mail: helpdesk-gem@gov.in
Helpdesk Outbound No's: 0755-6627270, 0120-6921990

j) Minimum requirements at bidder's end

Computer System having configuration with minimum Windows 7 or above, and Broadband Connectivity.

- Microsoft Internet Explorer 7.0 or above
- Digital Certificate(s)

k) Submission of bids

Online submission of Bid

The bidders shall submit their Technical and Financial Bid electronically through GEM Portal.

- 3.1.1 HUDCO will select the Consultant for carrying out the Consultancy Services as per the selection criteria mentioned in the RFP
- 3.1.2 Interested consultancy firms should submit their proposals in English Language only.
- 3.1.3 The applicant/bidder shall be a single 'legal entity' and must be operational in India for not less than last five years from the date of issue of this RFP.
- 3.1.4 Formation of Joint venture/Consortium to perform the assignment in part or full and appointment of sub-consultant for performing the assignment in part or full shall not be allowed.
- 3.1.5 Any Individual Consultant/ Firms, Govt. Agencies, PSUs, CPSUs, academic institutions of repute having offices in India and fulfilling the eligibility/selection criteria are eligible for bidding.
- 3.1.6 Proposals must remain valid for 180 days after the submission date until validity extended by HUDCO. During this period, the consultant is expected to keep available the key professional staff proposed for the assignment. HUDCO will make the best effort to complete the tendering process within this period. If HUDCO wishes to extend the validity period of the proposals, HUDCO may do so and those who do not agree would have the right to exit supported by a written communication not to extend the validity of their proposals.
- 3.1.7 At any time before the due date of submission of Proposals, HUDCO may, for any reason, whether at its own initiative or in response to a clarification requested by an

invited consultancy firm, may modify the RFP documents by amendment/corrigendum. Interested agencies should visit www.hudco.org from time to time and before final submission of bid to take into account any such developments.

3.2 Method of Selection

3.2.1 Selection will be done on basis of 4-stage process under Two packet bid system as per GEM portal as detailed below:

S no.	Stage as per RFP document	Packets as per GEM Portal
a	Stage 1 – EMD	Packet 1
b	Stage 2 - Pre-Qualification requirements	
c	Stage 3 – Technical Proposal	
d	Stage 4 – Financial Proposal	Packet 2

3.2.2 Stage 1 – EMD (Online)

- Bidder shall submit the copy of receipt of the payment of Earnest Money Deposit of Rs. 15,000/- (Rupees Fifteen thousand only). In case of an MSME the bidder has to submit the copy of MSME registration certificate by **01/03/2024, 3:00 P. M.** The EMD amount shall only be accepted electronically in the current a/c of HUDCO as per details given in **Table 3.1**

Table 3.1 Current Account of HUDCO for EMD Deposit

Name of Beneficiary	HUDCO Ltd.
Bank	HDFC Bank
Branch	KG Marg, New Delhi
IFSC Code	HDFC0000003
A/c Type & No.	Current A/c No. 00030350017801
Purpose	Tender fee
Name of Agency	

The bidder has to ensure that the EMD amount is credited to HUDCO's account as mentioned in **Table 3.1** well before the stipulated date and time.

- Prequalification documents of only those bidders will be opened, whose valid EMD or MSME Registration certificate are submitted within the stipulated date and time.
- Earnest money of the unsuccessful bidder(s) shall be refunded within 60 days of award of work to successful bidder, no interest would be payable on EMD.
- On request of the successful Bidder, the Earnest Money Deposit (EMD) will be adjusted against the Security Deposit payable by the bidder and bidder shall deposit the balance amount in the prescribed mode as detailed in clause 3.7.2.

3.2.3 Stage 2 - Pre-Qualification requirements (Online)

- Interested Consultants shall submit information in the prescribed Pre-Qualification Forms provided in **Annexure 4.1** to **Annexure 4.7** of this document. Only those Consultants whose

documents are found complete and satisfactory will be considered for evaluation of next stage i.e Stage three /Technical Proposal. Material deficiencies in providing the information requested may result in rejection of the Proposal.

- b) Bidder shall submit the scanned copy documents pertaining to Pre-qualification requirements mentioned in the **Table 3.2:**

Table 3.2: Pre-qualification Requirements (online)

S No.	Contents of Pre-qualification requirements	Scanned copy of documents to be attached (Mandatory)
1	Pre-Qualification – covering letter on the letter head of consultant	Duly filled and signed Annexure 4.1
2	- Company Profile and Registration of the Firm/Certificate of Incorporation - Experience of at least 7 years in Conducting traffic & transportation surveys and Socio-economic surveys in India. - Three Completion Certificates and Work Orders/ Contract/ Agreements of previous projects regarding experience of successfully completed ‘*projects of similar nature’, during the last 7 years ending on last day of the preceding month in which the bids are invited.	- Duly filled and signed Annexure 4.2 along with Table 4.1 - Certificate of registration / incorporation. - Copy of Completion Certificates and Work Orders/ Contract/ Agreements[#] pertaining to at least three projects of similar nature. Note# Completion certificates / work orders /agreements/ contracts to include the scope of work executed by the consultant
3	Audited Financial Statements of the last 3 years. (Financial Year 2020-21, 2021-22 & 2022-23)	Scanned copy of balance sheet along with the profit & loss account authenticated by Chartered Accountant should be submitted.
4	Average Annual Turnover of at least Rs. 6 lakh through Professional fees from consultancy operations during the last three financial years (Financial Year 2020-21, 2021-22 & 2022-23).	Duly filled Annexure 4.3 along with Table 4.2 , Authenticated by the Statutory Auditor/Chartered Accountant.
5	The net worth of the applicant firm should not be negative on the date of tender and as on 31/03/2023 and also should have not eroded by more than 30% (thirty percent) in the last three years, ending on ‘The Relevant Date’.	A certificate authenticated by CA is required to be submitted. ‘Relevant date’ shall be the last date of the preceding month in which the EoI is invited.
6	GSTIN and PAN	- Copy of GSTIN Registration - Copy of PAN

7	Undertaking: Bidder is not Blacklisted by any government, semi-government, PSUs and CPSUs, ineligibility for corrupt and fraudulent practices.	Duly filled Annexure 4.4
8	Self-declaration and Power of Attorney to sign the bid	Duly filled Annexure 4.5 and Annexure 4.6 with signatures of Authorised signatory
9	EMD Refund Form	Duly filled in as per performa at Annexure 4.7
10	Each page of the all Volume of RFP document & Annexures/ Corrigendum shall be signed and stamped by the bidders submitting the proposal in token of his/their having acquainted himself/ themselves and accepted the entire RFP document including various conditions of contract.	Duly signed and stamped scanned copy of complete RFP document along with other schedules/annexures/corrigendum

**Note 1: 'Projects of similar nature' should include the following–*

- Comprehensive Mobility Plans (CMPs)
- Low Carbon Mobility Plan (LCMP)
- Integrated Mobility Plan (IMP)
- Comprehensive Traffic & Transportation Study
- Traffic Improvement & Management Plan
- Regional Transport Plan
- Transport Demand Management Plan
- Decongestion plan
- Road Network Development Plan
- Connectivity Plan
- Traffic Impact Assessment (TIA)
- Any other Transportation study having conducted at least 4 surveys mentioned in the table under Part B. Task 2: Traffic and Transportation and Socio-economic surveys of Scope of work of this RFP.

3.2.4 Stage 3 – Technical Proposal (online)

In preparing the Technical Proposal, consultancy firms are expected to examine the documents comprising this RFP in detail. Material deficiencies in providing the information requested may result in rejection of the Proposal. The Technical Proposal shall not include any financial information. Consultancy firm shall submit its technical proposals as per **Table 3.3** along with a covering letter on consultant's letter head as per **Annexure 4.8**

Table 3.3: Technical Proposal

Sl. No.	Evaluation Parameter	Scanned Copies of Eligible Documentary Evidence (Mandatory)
E1	Project References	

E1.1	The bidders who have completed ‘*Projects of similar nature’, as detailed below during last 7 years, ending last day of month previous to the one in which bid is invited, a) Three completed Projects of similar nature each costing not less than the amount equal to 40% of the estimated fee put to RFP. OR b) Two completed Projects of similar nature each costing not less than the amount equal to 60% of the estimated fee put to RFP. OR c) One completed Projects of similar nature costing not less than the amount equal to 80% of the estimated fee put to RFP.	1. Details of projects in Table 4.4 and Table 4.5 given in Annexure 4.9 2. Submission of certified copy of work orders and Completion Certificates[#] issued by the respective Clients 3. Corresponding agreements Note# Completion certificates / work orders /agreements/ contracts to include the scope of work executed by the consultant
E1.2	The bidders who have successfully completed projects of household level Socio-economic surveys or any other household level surveys, during last 7 years, ending last day of month previous to the one in which bid is invited.	1. Details of projects as per Table 4.6 and Table 4.7 given in Annexure 4.10 2. Submission of work orders and Completion Certificates[#] issued by the respective Clients 3. Corresponding agreements Note# Completion certificates / work orders /agreements/ contracts to include the scope of work executed by the consultant
E2	Qualifications and competence of the key professional staff to be deployed for the assignment like Team Leader, Transportation Engineer, Field Survey Supervisor, Data entry operators and Enumerators	Details and Curriculum Vitae of concerned personnel as per Table 4.8 & Table 4.9 in Annexure 4.11 and Table 4.10 in Annexure 4.12
E3	Proposed Approach, Survey schedule & Methodology and Organizational Structure with details of human resource/staff deployment etc.	Details as per Annexure 4.13, Annexure 4.14 and Annexure 4.15 along with Table 4.11, Table 4.12, Table 4.13, Table 4.14 and Table 4.15
E3.1	Certificate of Conformity/ No Deviation	Details as per Annexure 4.16

**Note : ‘Projects of similar nature’ should include the following–*

- Comprehensive Mobility Plans (CMPs)
- Low Carbon Mobility Plan (LCMP)
- Integrated Mobility Plan (IMP)
- Comprehensive Traffic & Transportation Study
- Traffic Improvement & Management Plan
- Regional Transport Plan

- *Transport Demand Management Plan*
- *Decongestion plan*
- *Road Network Development Plan*
- *Connectivity Plan*
- *Traffic Impact Assessment (TIA)*
- *Any other Transportation study having conducted at least 4 surveys mentioned in the table under Part B. Task 2: Traffic and Transportation and Socio-economic surveys of Scope of work of this RFP.*

3.2.5 Stage 4 – Financial Proposal (Online)

On evaluation of technical proposals by the Tender committee formed by HUDCO, Financial Proposals of only those agencies would be opened, who are found to be eligible as per the criteria defined in the RFP. The date of opening of financial bids shall be intimated to the shortlisted agencies at a later date. The last date for submission of the proposal is **01-03-2024 by 03:00 P.M.** The financial proposal shall be submitted online on GEM portal as per **Table 4.16** given in **Annexure 4.17**

3.3 Pre bid Clarifications

- 3.3.1 The applicant or his official representative are invited to attend a Pre-Bid meeting which will take place at Sammelan Kaksh, Ground floor, HUDCO Bhawan, Core 7A, India Habitat Centre, Lodhi Road, New Delhi – 110003 on **19/02/2024 at 03:00 PM**. The applicants are required to submit any question on issues relating to the RFP, in writing by E-mail so as to reach the official nominated for this purpose viz. Executive Director (C&C wing) through e-mail: cnp.hudco@hudco.org, not later than 3 (three) days before the date fixed for the meeting.
- 3.3.2 The purpose of the above is to clarify the issues raised and to answer supplementary questions on such issues, if any.
- 3.3.3 The text of the clarifications/questions raised and the responses given will be uploaded on GEM portal and HUDCO's website viz. www.hudco.org. Any modifications of the tender document which may become necessary as a result of clarifications shall be made exclusively through the issue of an Addendum/Corrigendum. Addendum/Corrigendum, if any, will also be uploaded on GEM portal and HUDCO's website <https://www.hudco.org> which will become part of bid document.

3.4 Proposal Evaluation

- 3.4.1 From the time the bids are opened to the time the contract is awarded, if any consultant wishes to contact HUDCO on any matter related to its proposal, it should do so in writing at the address indicated. Any effort by the firm to influence HUDCO in the proposal evaluation, proposal comparison or contract award decisions, may result in the rejection of the consultant's proposal.

3.4.2 Evaluation of Pre-Qualification Requirements Forms

The Committee duly constituted by Competent Authority of HUDCO for the purpose will evaluate the Pre-Qualification Forms based on successful submission/uploading of the documents mentioned in **Table 3.2**

*Failure to submit/upload any one or more of the documents as mentioned in **Table 3.2** will result in disqualification of the Bidder.*

3.4.3 Evaluation of Technical Proposals

The constituted Committee will evaluate the Technical Proposal using the evaluation parameters as detailed in **Table 3.4** and upload the marks in the GEM system.

Table 3.4 Technical Proposal Evaluation

S. No.	Evaluation parameter	Marks	Max. Marks
E1	Project References		
E1.1	General experience of successfully completion of ‘*Projects of similar nature’, as detailed below during last 7 years, ending on last day of month previous to the one in which bid is invited, a) Three completed Projects of similar nature each costing not less than the amount equal to 40% of the estimated fee put to RFP. OR b) Two completed Projects of similar nature each costing not less than the amount equal to 60% of the estimated fee put to RFP. OR c) One completed Projects of similar nature costing not less than the amount equal to 80% of the estimated fee put to RFP.	40	40
E1.2	General experience of successfully completion of projects of household level Socio-economic surveys or any other Household level surveys, during last 7 years, ending on last day of month previous to the one in which bid is invited.		10
i.	One completed Projects	5	
ii.	Two or more than two but less than 4 completed projects	7	
iii.	4 or more than 4 completed projects	10	
E2	Qualifications and competence of the key professional staff for the assignment.		30
i.	Team Leader	10	
ii.	Field Survey Expert/supervisor	10	
iii.	Traffic Management/ Modelling Expert	10	
E3	Adequacy of the proposed Approach, Work Plan and Methodology**		20

S. No.	Evaluation parameter	Marks	Max. Marks
i.	Approach, Methodology & Work Plan with brief note on in-house manpower and infrastructure	20	
	Total – (E1.1+E1.2) + E2+E3	100	100

**Note : ‘Projects of similar nature’ should include the following–*

- Comprehensive Mobility Plans (CMPs)
- Low Carbon Mobility Plan (LCMP)
- Integrated Mobility Plan (IMP)
- Comprehensive Traffic & Transportation Study
- Traffic Improvement & Management Plan
- Regional Transport Plan
- Transport Demand Management Plan
- Decongestion plan
- Road Network Development Plan
- Connectivity Plan
- Traffic Impact Assessment (TIA)
- Any other Transportation study having conducted at least 4 surveys mentioned in the table under Part B. Task 2: Traffic and Transportation and Socio-economic surveys of Scope of work of this RFP.

*** A clear and detailed Approach and methodology towards the assignment shall be given, not exceeding 10 pages. A work plan on how the methodology will be executed in the given time shall be attached*

3.4.4 The marking distribution of points for qualifications and competence of the key professional staff for the assignment is as detailed in **Table 3.5**.

Table 3.5 Marking Distribution of Points for Qualifications and Competence

S No.	Level / Designation	Mandatory Educational Qualification	Experience	Marks	Max. Marks
1	Team Leader	Bachelor’s Degree in Civil Engineering/ Planning/Architecture with Masters in Traffic/ Transport Planning/ Highway Engineering with minimum 10 years of experience in preparation of Traffic & Transportation studies	10-15 Years	2	10
			More than 15 Years	4	
			Experience in preparation of Traffic & Transportation study		
			2-3 assignments	2	
			4-6 assignments	4	
			More than 6	6	

S No.	Level / Designation	Mandatory Educational Qualification	Experience	Marks	Max. Marks
			assignments		
2	Field Survey Expert/supervisor	Graduate/Diploma in Surveying /Planning/Civil engineering & other equivalent qualifications with minimum 5 years of experience in Transport Surveys	5 - 8 Years	2	10
			More than 8 Years	4	
			Relevant experience in Transport and Socio-economic surveys		
			3- 5 assignments	4	
			More than 5 assignments	6	
3	Traffic Management/ Modelling Expert	Graduate in Traffic Engineering/Civil engineering/ Planning and any other equivalent qualifications with Post-Graduate in Transport Engineering/Planning with minimum 5 years of relevant experience	5 - 8 Years	2	10
			More than 8 Years	4	
			Relevant experience in Traffic management and modelling for Traffic and Transport Studies		
			3-5 assignments	4	
			More than 5 assignments	6	

3.4.5 Mandatory deployment of key professionals for the assignment should be as per **Table 3.6**

Table 3.6 Minimum no. of Key Professional

S. no.	Key Professional	Min. no. of resource persons to be deployed
i)	Team Leader	1
ii)	Field Survey Expert/supervisor	1
iii)	Traffic Management/ Modelling Expert	1
iv)	Field Surveyors and support staffs	As per requirement
v)	Data Entry Operators	As per requirement

Note:

- All the personnel mentioned in **Table 3.6** should be computer savvy and be able to use latest design software, project management software for the respective area of work.
- Proposed personnel must be proficient in both written and spoken English and Hindi.
- Field Survey Expert should be available at the project site with support staff as and when required by HUDCO /Govt. of Bihar in the entire project period.

Minimum Technical Score/Marks of 70 out of 100 is required to qualify for opening of Financial Bid.

Only those bidders that have achieved at least minimum qualifying score (70 marks out of 100) will be treated as qualified and only their Financial proposals will be opened.

3.5 Evaluation of Financial Proposal

The financial proposals of only technically shortlisted Applicants (qualified bidders) will be opened and will be ranked in terms of their total quoted amount using Quality and Cost Based Selection Method (QCBS) with Technical Score having weightage of 70% and Financial bid having weightage of 30%.

After filling *the technical score*, the system will open financial bid of all qualified Service Providers and compute QCBS score as per formula given below:

Calculation Formula= $B = [(C_{low} / C).X] + [T/T_{high} \cdot (1-X)]$

Where

C=evaluated Bid price

C_{low}=The lowest of all evaluated Bid price among responsive Bids

T= the total Technical score/marks awarded to the Bid

T_{high}=the Technical score/marks achieved by the Bid that was scored best among all responsive Bids.

X= weightage for the process as specified in Bids

After opening and evaluating the Financial Proposals of technically qualified bidders, a final combined score is arrived based on predefined relative weight ages.

The proposal with the highest weighted combined score (quality and cost) as per the predefined formula integrated in GeM portal shall be selected and considered as successful bidder.

3.6 Exclusion of Bids/ Disqualification

The HUDCO shall exclude/ disqualify a Bid, if

- a) The bidder is not qualified as per pre-qualification/ eligibility criteria mentioned in the bidding document.
- b) The information submitted, concerning the qualifications of the bidder, was materially inaccurate or incomplete
- c) The Bid materially departs from the requirements specified in the bidding document or it contains false information.

3.7 Award of Contract

- 3.7.1 On award of the consultancy assignment, the Consultant shall be required to enter into an agreement with HUDCO for the successful completion of the Consultancy assignment as per the Terms of Reference.

- 3.7.2 The selected consultant shall be required to give Performance security deposit of 10% of the fee payable at the award of contract. However, if consultant so desires the same can also be deducted from each payment in the manner detailed at clause 2.5.1 above. HUDCO shall be at liberty to forfeit the security deposit as damages without prejudice to any other rights or remedy that may be available to it under the present and/or any other applicable law. The security deposit will be discharged by HUDCO and returned to the Consultant after successful physical completion of the project at site, submission of drawing & documents to the satisfaction of HUDCO.
- 3.7.3 The firm is expected to commence the assignment as per stipulation in the LOA/Work Order.
- 3.7.4 Collecting all required data relevant to the assignment will be the responsibility of the consultants. The HUDCO will provide the necessary introductory letter to get information/data from other concerned agencies/departments, wherever applicable.
- 3.7.5 In case of delay in the conduct of consultancy services within the time fixed or in the event of repudiation of the contract, HUDCO reserves the right to recover liquidated damages, including administrative expenses, for breach of contract, a sum equivalent to 0.5% (half percent) of total contractual value, which the consultant has failed to deliver within the period fixed for delivery for each week or part thereof during which delivery is in arrears subject to an overall ceiling of 10% (ten percent) of the total contract price.

3.8 Abandonment of Works

- 3.8.1 That if the Consultant abandons the work for any reason whatsoever or become incapacitated from acting as Consultant as aforesaid, HUDCO may make full use of all or any of the drawings/surveys/report prepared by the Consultants and that the Consultants shall be liable to refund any excess fee paid to them up to that date plus such damages as may be assessed by HUDCO.
- 3.8.2 If at any time after start of work, the client decides to abandon or reduce the scope of work for any reason whatsoever and hence not required the whole or any part of the works to be carried out, HUDCO shall give notice in writing to this effect to the Consultant and the Consultant shall have no claim for any payment of compensation, or otherwise whatsoever, on account of any profit or advance which he might have derived from the execution of works in full but which he did not derive in consequence of the foreclosure of the whole or part of the work.

3.9 Termination

- 3.9.1 On failure to provide satisfactory service and thereby causing any delay or damage in the execution of the project, or committing a breach of any one or more of the terms and conditions of the agreement, HUDCO shall have the right to terminate the consultancy forthwith by giving thirty days advance notice at the address mentioned therein without prejudice to its rights to claim damages or remedies under the law and take all necessary action as stipulated in the contract. The decision of HUDCO

regarding dis-satisfaction of services/ delay/ damages caused/ breach of the terms of contract by the Consultant shall be final and binding in this regard.

3.10 Suspension of Works

- a. The Consultant shall, on receipt of the Order in writing from the Project in Charge, suspend the progress of works or any part thereof for such time and in such manner as the Project -in -Charge may consider necessary for any of the following reasons:
 - i. On account of any default on part of Consultant, or
 - ii. For proper execution of works or part thereof for reason other than the default of Consultant
 - iii. If works are partly or fully abandoned/ suspended by HUDCO/ clients for any reason, the Consultant shall, during such suspension, properly protect and secure the works to the extent necessary and carry out the instructions given in that behalf by the Project in Charge.
- b. If the suspension is ordered for reasons (ii) and (iii) in sub- para (a) above:-
 - i. The Consultant shall be entitled to an extension of time equal to the period of every such suspension plus 25%. No adjustment of contract fees will be allowed for reasons of such suspension.
 - ii. In the event of Consultant treating the suspension as an abandonment of the contract by HUDCO, he shall have no claim to payment of any compensation on account of any profit or advantage which he may have derived from the work in full or part.

3.11 Termination or Rescinding of Contract.

3.11.1 HUDCO without any prejudice to its right against the Consultant in respect of any delay by notice in writing may absolutely determine the contract in any of the following cases:

- i. If the Consultant being a company shall pass a resolution of its being wound up or the court shall make an order that the company shall be wound up or if a receiver or a manager on behalf of the creditor shall be appointed or if circumstances shall arise which entitle the court or creditor to appoint a receiver or a manager which entitles the court to make up a winding order.
- ii. If the Consultant commit breach of any of the terms of agreement by which the Consultants have made themselves liable for action under any of the clauses aforesaid, HUDCO shall in addition to any other right available to it under the contract and/or law, inter-alia, including the liquidated damages have powers a) to determine or rescind the agreement b) to engage another Consultant(s) to carry out the balance work at the risk and cost of the Consultant by debiting the Consultant(s) the excess amount, if any, so spent.
- iii. In case contract of Consultant is terminated, the Consultant shall be suspended from participating in the bids/ tenders issued by HUDCO for a period of one year from the date of issue of termination order. The decision of HUDCO in this regard shall be final and binding on the Consultant.

3.12 Fraud and Corrupt Practices

3.12.1 The Applicants and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Selection Process.

Notwithstanding anything to the contrary contained in this RFP, HUDCO shall reject the Proposal without being liable in any manner whatsoever to the Applicant, if it determines that the Applicant has, directly or indirectly or through an agent, is engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice (collectively the “Prohibited Practices”) in the Selection Process. In such an event, HUDCO shall, without prejudice to its any other rights or remedies, forfeit the EMD and the Security Deposit, as the case may be or mutually agreed genuine pre-estimated compensation and damages be payable to HUDCO for, inter alia, time, cost and effort of HUDCO, with regard to evaluation and processing of the RFP.

Without prejudice to the rights of HUDCO under clauses herein above and the rights and remedies which the HUDCO may have under the LOA/Work Order, if an Applicant or Consultant, as the case may be, is found by the HUDCO to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice after the issue of the LOA/Work Order, such Applicant or Consultant shall not be eligible to participate in any tender or RFP issued by HUDCO for a period of 2 (two) years from the date such Applicant or Consultant, as the case may be, is found by HUDCO to have directly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as the case may be.

3.12.2 For the purposes of this Clause, the following terms shall have the meaning hereinafter respectively assigned to them:

- a) “corrupt practice” means (i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of any person connected with the Selection Process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of the HUDCO who is or has been associated in any manner, directly or indirectly with the Selection Process or the LOA/Work Order or has dealt with matters concerning the Agreement or arising there from, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of the HUDCO, shall be deemed to constitute influencing the actions of a person connected with the Selection Process; or (ii) engaging in any manner whatsoever, whether during the Selection Process or after the issue of the LOA/Work Order or after the execution of the Agreement, as the case may be, any person in respect of any matter relating to the Project or the LOA/Work Order or the Agreement, who at any time has been or is a legal, financial or technical consultant/ adviser of the HUDCO in relation to any matter concerning the Project;
- b) “fraudulent practice” means a misrepresentation or omission of facts or disclosure of incomplete facts, in order to influence the Selection Process;
- c) “coercive practice” means impairing or harming or threatening to impair or harm, directly or indirectly, any persons or property to influence any person’s participation or action in the Selection Process;
- d) “undesirable practice” means (i) establishing contact with any person connected with or employed or engaged by the HUDCO with the objective

- of canvassing, lobbying or in any manner influencing or attempting to influence the Selection Process; or (ii) having a Conflict of Interest; and
- e) “restrictive practice” means forming a cartel or arriving at any understanding or arrangement among Applicants with the objective of restricting or manipulating a full and fair competition in the Selection Process.

3.13 Arbitration

All differences and disputes arising between HUDCO and the Consultant on any matter connected with these presents/assignments/agreements entered/to be entered between the parties or in regard to the interpretation of the contents thereof shall be referred for arbitration to a sole arbitrator appointed by Chairman & Managing Director, HUDCO in accordance with the provisions of Arbitration and Conciliation Act, 1996 and the decision and award of the arbitrator shall be final and binding on the parties hereof. The place of arbitration proceedings shall be New Delhi.

3.14 Force Majeure Clause

The Consultant shall be granted extension of the completion period date without any financial repercussion to cover the delay caused by the circumstances viz incidence of war, invasion, revolution, sabotage, work shutdown imposed by Govt. agencies or legislature or other authorities, act of God, epidemic, fire, earthquakes, floods, explosions, accidents or any other acts or events which are beyond the control, of HUDCO or which shall directly or indirectly prevent completion of the works within the time specified in the bid document.

3.15 Foreclosure of Contract by HUDCO

If any time after commencement of works, for any reason what-so-ever, HUDCO is required to foreclose the work or is not required the whole work as specified in the RFP, to be carried out, the Project In-charge shall give Notice in writing to this effect to the Consultant, who shall have no claim to any payment of compensation what-so-ever on account of any profit or advantage which he might have derived from the work in full, but which he couldn't as a consequence of the foreclosure of the whole or part of work as aforesaid.

4 Annexures

Annexure 4.1

Pre-Qualification – Covering Letter

[Letterhead of Consultant]

To

Executive Director
Construction and Consultancy Wing
Housing & Urban Development Corporation Limited,
Core -7A, HUDCO Bhawan, India Habitat Centre,
Lodhi Road , New Delhi -110003

Sub: “Consultancy services for Traffic & Transportation Study and Socio-economic Survey for Master Plan of Rajgir Regional Planning Area and World Heritage Site of Nalanda Mahavihara, Bihar”

Sir,

We, the undersigned, offer to provide the consultancy services for the above assignment in accordance with your Request for Proposal vide advertisement dated **09/02/2024**. We are hereby submitting our Proposal for **“Consultancy services for Traffic & Transportation Study and Socio-economic Survey for Master Plan of Rajgir Regional Planning Area and World Heritage Site of Nalanda Mahavihara, Bihar”**

2. The Proposal contains the following documents:

- EMD - copy of receipt of payment
- Pre-Qualification requirements
- Technical Proposal
- Financial Proposal

3. We have gone through the RFP documents and understand the terms and conditions. We understand that you are not bound to accept the proposal you receive.

Yours sincerely,

Name
Designation
Office Seal

Encl: As above.

Annexure 4.2

General

1. Name of the Consultancy firm:
2. In case the consultancy firm is a subsidiary of a larger organization, please write the name of the parent organization :
3. Consultancy firm's registered address in (a) India and (b) Office in Delhi:
4. Consultancy firm's address for correspondence regarding this project, including phone numbers (mention city code), fax numbers and email addresses :
5. Consultancy firm's GST no. and PAN number:
6. Details of the authorized signatory of the consultancy firm for communication regarding this project:
 - Name :
 - Designation :
 - Contact details of the authorized signatory :
 - Office Phone (Direct Line/ Extension) Number :
 - Fax Number :
 - Mobile Phone Number :
 - Email Id :
7. Experience of the Consultancy Firm
 - i. Total Experience since the inception of firm (in years) :
 - ii. Main line business :
 - iii. Experience in consultancy (in years) :
 - iv. Experience in consultancy projects of similar nature (in years) :

8. At least three major completed projects (of similar nature) to be filled in details as per **Table 4.1**

Table 4.1 Major Completed Projects (of similar nature)

S. no.	Name of Project	Client	Location of Project	Consultancy fee of the Project (in Rs.)	Completed as on date (Yes/No)	Year of completion
1						
2						
3						

**Note: 'Projects of similar nature' should include the following–*

- *Comprehensive Mobility Plans (CMPs)*
- *Low Carbon Mobility Plan (LCMP)*
- *Integrated Mobility Plan (IMP)*
- *Comprehensive Traffic & Transportation Study*
- *Traffic Improvement & Management Plan*
- *Regional Transport Plan*
- *Transport Demand Management Plan*
- *Decongestion plan*
- *Road Network Development Plan*
- *Connectivity Plan*
- *Traffic Impact Assessment (TIA)*
- *Any other Transportation study having conducted at least 4 surveys mentioned in the table under Part B. Task 2: Traffic and Transportation and Socio-economic surveys of Scope of work of this RFP.*

Encl. :

- a. Copies of Registration of the Firm/Certificate of Incorporation
- b. Completion Certificate/ Work Orders/ Contract/ Agreements of previous projects regarding experience of successful projects of similar nature.

Annexure 4.3

Average Annual Turnover and Financial Statement

Audited Balance sheet and Profit and Loss account for the last three financial years shall be submitted.

Format for Financial Details of the Firm

The information regarding the Turnover from Consultancy Services in last three years should be provided in the format given in **Table 4.2**.

Table 4.2 Turnover from Consultancy Services for Past Three FYs

S.No	Financial Years	Turnover from Consultancy Services (INR)
1.	2019-2020	
2.	2020-2021	
3.	2021-2022	
	Average Annual Turnover	

Certificate from the Statutory Auditor

This is to certify that [name of company] [registered address] has the turnover shown in **Table 4.2** against the respective years.

Name of Authorized Signatory

Designation

Name of firm

Signature of Authorized

Signatory Seal of Audit firm

Note:

1. In case the Consultant does not have a statutory auditor, it may provide the certificate from its Chartered Accountant.

Annexure 4.4

Declaration that the bidder has not been blacklisted by any organisation

[Letterhead of Consultant]

To

Executive Director (Projects)
Construction and Consultancy Wing
Housing & Urban Development Corporation Limited,
Core -7A, HUDCO Bhawan, India Habitat Centre,
Lodhi Road, New Delhi -110003

Subject: Self Declaration of not been blacklisted in response to the RFP for Selection of Consultant for **“Consultancy services for Traffic & Transportation Study and Socio-economic Survey for Master Plan of Rajgir Regional Planning Area and World Heritage Site of Nalanda Mahavihara, Bihar”**

Dear Sir,

We confirm that our Firm/company, _____, is not blacklisted, in any manner whatsoever by any of the State/UT/PSU/CPSE 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.

It is certified/confirmed that our firm has no pending litigation with HUDCO.

Place:

Date:

Bidder's Company Seal:

Authorized Signatory's Signature:

Authorized Signatory's Name and Designation:

Annexure 4.5

Self-Declaration

1. I/We _____ son/daughter/wife of
Shri _____ Proprietor/Director/Authorized
signatory of the agency/firm _____ is/are competent to sign this
declaration and execute this tender document.
2. I have carefully read and understood all the terms and conditions of the RFP and
undertake to abide by them.
3. The information/documents related to Work experience as a Transportation and Traffic
Consultancy Firm and any other documents furnished along with the application are
true and authentic to the best of my knowledge and belief. I/We, am/are well aware of
the fact that furnishing of any false information/fabricated documents would lead to
rejection of my bid at any stage beside liabilities towards prosecution under appropriate
law.

Signature of the authorized Signatory of the firm.

Date:

Full Name:

Place:

Seal:

Note: The Bidder shall necessarily provide a copy of 'Power of Attorney' authorizing the signatory for signing the Bid on behalf of the Bidder in its Pre-Qualification Bid.

Annexure 4.6

(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution.)

Format for Power of Attorney for Authorized Representative

Know all men by these presents, We, [name of organization and address of the registered office] do hereby constitute, nominate, appoint and authorize Mr/Ms [name], son/daughter/wife of [name], and presently residing at [address], who is presently employed with/retained by us and holding the position of [designation] as our true and lawful attorney (herein after referred to as the “Authorized Representative”), with power to sub-delegate to any person, to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our Proposal for and selection as consultant for [name of assignment], by Housing & Urban Development Corporation Ltd. (the “Client”) including but not limited to signing and submission of all applications, proposals and other documents and writings, participating in pre-bid and other conferences and providing information/responses to the HUDCO, representing us in all matters before the HUDCO, signing and execution of all contracts and undertakings consequent to acceptance of our proposal and generally dealing with the HUDCO in all matters in connection with or relating to or arising out of our Proposal for the said Project and/or upon award thereof to us until the entering into of the Contract with HUDCO.

AND, we do hereby agree to ratify and confirm all acts, deeds and things lawfully done or caused to be done by our said Authorized Representative pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Authorized Representative in exercise of the powers here by conferred shall always be deemed to have been done by us.

INWITNESS WHERE OF WE, [name of organization], THE ABOVE-NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS [date in words] DAY OF [month] [year in “yyyy” format].

For [name and registered address of organization]

[Signature]

[Name][Designation]Witnesses:

1. [Signature, name and address of witness]
2. [Signature, name and address of witness]

Accepted

[Signature]

[Name]

[Designation]

[Address]

(Power of Attorney to be provided by the Bidder Company/ Bidder in favour of its representative as evidence of authorized signatory’s authority)

Annexure 4.7

Format for Bank Details for EMD refund

The details of Bank Account in which payment is to be transferred and other details are as given in **Table 4.3**.

Table 4.3 Bank Account Details for EMD Refund

S. No.	Name of Bank	Details
1	Name of Bank	
2	Bank Account Number	
3	Bank Branch Name	
4	Bank Branch Address	
5	Bank Branch Telephone No.	
6	Type of Account (SB A/C/CA/Cash Credit with code)	
7	Bank Code No / MICR Code (9-digit code number of bank & Branch)	
8	PAN No. (copy to be attached)	
10	TIN No.	
11	GST No.	
12	IFSC Code No	

Authorized Signature:

Name:

Seal:

Annexure 4.8

Technical Proposal – Covering Letter

[Location, Date]

To

Executive Director (Projects)
Construction and Consultancy Wing
Housing & Urban Development Corporation Limited,
Core -7A, HUDCO Bhawan, India Habitat Centre,
Lodhi Road, New Delhi -110003

Subject: “Consultancy services for Traffic & Transportation Study and Socio-economic Survey for Master Plan of Rajgir Regional Planning Area and World Heritage Site of Nalanda Mahavihara, Bihar” – Technical Proposal

Sir,

We, the undersigned, offer to provide the consultancy services for the above assignment in accordance with your Request for Proposal vide advertisement dated **09/02/2024** for the **“Consultancy services for Traffic & Transportation Study and Socio-economic Surveys for Master Plan of Rajgir Regional Planning Area, Bihar”**.

We are hereby submitting our Technical Proposal

The Proposal contains the following documents in separate folders:

- Technical Proposal documents as mentioned in **Table 3.3**

We have gone through the RFP documents and understand the terms and conditions. We understand that you are not bound to accept any proposal you receive.

Yours sincerely,

Authorized Signature:

Name and Title of Signatory:

Name of Firm:

Address:

Encl: As above

Annexure 4.9

Summary of Project References

Furnish a summary of the Firm's Project References with reference to Table 3.4 E1.1 in the format given in Table 4.4: -

Table 4.4 Summary of Firm's Project References with reference to Table 3.3 E1.1

S. No	Name of Project	Client	Location of the Project	Nature of Assignment	Consultancy Fee for the Project	Completion Date	Proof Enclosed (Contract / Agreement / Work Order / LOA / Completion Certificate)
1							
2							
3							
...							

Using the format given in **Table 4.5**, provide information on each reference assignment for which your firm was legally contracted.

Project sheet indicating relevant services in the last seven years that best illustrate qualifications of the firm (Work Orders along with agreement and completion certificates to be annexed with each project sheet) with reference to **E1.1**.

Table 4.5 Project Sheet of Each Project

Assignment Name:		Country:
Location within Country:		Key professional staff provided by your Firm/ (profiles):
Name of Client:		No. of Staff:
Address:		No. of Staff-months: Duration of assignment:
Start Date (Month/Year):	Completion Date (Month/Year):	Approx. Value of Services (in Rs):
Name of Associated Consultants, if any:		No. of months of key professional staff provided by Associated Consultants:
Name of Senior Staff (Project Director/Coordinator, Team Leader) involved and functions performed:		
Narrative Description of Project:		

Annexure 4.10

Summary of Project References

Furnish a summary of the Firm's Project References with reference to Table 3.3 E1.2 in the format given in Table 4.6

Table 4.6 Summary of Firm's Project References with reference to Table 3.3 E1.2

S. No	Name of Project	Client	Location of the project	Nature of Assignment	Consultancy fee for the project	Completion Date	Proof Enclosed (Contract / Agreement / Work Order / LOA / Completion Certificate)
1							
2							
3							
...							

Using the format given in **Table 4.7**, provide information on each reference assignment for which your firm was legally contracted.

Project sheet indicating relevant services in the last seven years that best illustrate qualifications of the firm (Work Orders along with agreement and completion certificates to be annexed with each project sheet) with reference to **Table 3.3 E1.2**

Table 4.7 Project Sheet of Each Project

Assignment Name:		Country:
Location within Country:		Key professional staff provided by your Firm/ (profiles):
Name of Client:		No. of Staff:
Address:		No. of Staff-months: Duration of assignment:
Start Date (Month/Year):	Completion Date (Month/Year):	Approx. Value of Services (in Rs):
Name of Associated Consultants, if any:		No. of months of key professional staff provided by Associated Consultants:
Name of Senior Staff (Project Director/Coordinator, Team Leader) involved and functions performed:		
Narrative Description of Project:		

Annexure 4.11

Team Composition & Task Assignments

1. Technical/ Managerial Staff (Team Leader/ Field Survey Experts/ Traffic Management/ Modelling Expert)

Table 4.8 Team Composition & Task Assignments (Technical and Managerial Staff)

Sl. No.	Name	Educational Qualification	Proposed Position	Total experience (years)	Relevant experience in years	No. of years with company
1.						
2.						
3.						
4.						
..						
..						

2. Support Staff (Surveyors)

Table 4.9 Team Composition & Task Assignments Support Staff

Sl. No.	Name	Educational Qualification	Proposed Position	Total experience (years)	Tasks to be performed
1.					
2.					
3.					
4.					
..					
..					

Annexure 4.12

Format of Curriculum Vitae (CV) for Proposed Key Professional Staff

Proposed Position: _____

Name of Firm: _____

Name of Expert: _____

Profession: _____

Date of Birth: _____

Years with Firm/Entity: _____ Nationality: _____

Membership in Professional Societies: (if any) _____

Detailed Tasks Assigned: _____

Key Qualifications:

Education: _____

[Summarize college/university and other specialized education of expert member, giving names of schools, colleges, dates attended, and degrees obtained. Use about one quarter of a page.]

Relevant Work Experience:

Table 4.10 Relevant Work Experience

Sl No	Name of Project	Organization	Position held	Key Responsibilities

Employment Record: _____

[Starting with present position, list in reverse order every employment held. List all positions held by expert member since graduation, giving dates, names of employing organizations, titles of positions held, and locations of assignments.]

Languages:

[For each language indicate proficiency: excellent, good, fair, or poor; in speaking, reading, and writing]

Certification:

I, the undersigned certify that to the best of my knowledge and belief, these data correctly describe me, my qualifications, and my experience. If awarded the Contract, I undertake to work with this Firm only on this assignment.

[Signature of expert member]
Date: Day/Month/Year

[Signature of authorized representative of Firm]
Date: Day/Month/Year

Full name of expert:

Full name of authorized representative:

Annexure 4.13

Description of the Methodology and Workplan for Performing the Assignment

a) Technical Approach and Methodology: In this, the consultants explain their understanding of the objectives of the assignment, approach to the services, methodology for carrying out the activities and obtaining the expected output, and the degree of detail of such output. The consultants shall highlight the problems being addressed and their importance and explain the technical approach they would adopt to address them. The consultants shall also explain the methodologies they propose to adopt and highlight the compatibility of those methodologies with the proposed approach.

b) Work Plan: In this chapter, the consultants shall propose the main activities of the assignment, their content and duration, phasing and interrelations, milestones, and delivery dates of the reports. The proposed workplan shall be consistent with the technical approach and methodology, showing understanding of the TOR and ability to translate them into a feasible working plan. A list of the final documents, including reports, drawings, and tables to be delivered as final output, shall be included here. The workplan should be consistent with the Activity Schedule to be mentioned in **Table 4.11** and **Table 4.12** of **Annexure 4.14**.

c) Organization and Staffing: In this chapter, the consultants shall propose the structure and composition of the team. The consultants shall list the main disciplines of the assignment, the key expert responsible, and proposed technical and support staff.

*Note: * A clear and detailed Approach and methodology towards the assignment shall be given, not exceeding 10 pages. A work plan on how the methodology will be executed in the given time shall be attached*

*** Bidders should have necessary Survey equipment owned by them along with necessary softwares and other related infrastructure and available manpower to complete the project*

Annexure 4.14

Activity Schedule

A detailed schedule for the activities towards completing the assignment with deliverables indicated.

Table 4.11 Activity Schedule

Sl. No.	Item of Activity (Work)	Weeks from inception of the assignment (in the form of a Bar Chart)												
		1	2	3	4	5	6	7	8	9	10	...	Number of Weeks	
1.													Subtotal (1)	
2.													Subtotal (2)	
3.													Subtotal (3)	
4.													Subtotal (4)	
...														

Time schedule for Professional staff

Detailed week wise break-up of staff allocation for key staff and support staff

Table 4.12 Time Schedule of Professional Staff

Sl. No.	Name	Position	Activity (Work)	Weeks from inception of the assignment (in the form of a Bar Chart)												
				1	2	3	4	5	6	7	8	9	...	Total number of Weeks		
1.																
2.																
3.																
4.																
...																

Annexure 4.15

Self-Declaration on Transport Survey Infrastructure and Manpower Requirements

To,

In response to the RFP Ref. No. _____ dated _____ for {Project Title}, as an Owner/ Partner/ Director/ Auth. Sign. of _____, I/ We hereby declare that presently our Company/ firm _____, at the time of bidding has the Traffic Survey Equipment, Infrastructure as mentioned in **Table 4.13** and **Table 4.14** and sufficient qualified manpower as mentioned in **Table 4.15** to undertake **Traffic & Transportation Study and Socio-economic Survey for Master Plan of Rajgir Regional Planning Area and World Heritage Site of Nalanda Mahavihara, Bihar**:

List of Survey Instruments and Others

Table 4.13 List of Survey Instruments and others

Sr. No	Name, make, model of survey instruments and other equipment

List of Computers, Peripherals & Survey /Excel Software/Camera

Table 4.14 List of Computers, Peripherals & Survey/ MS excel Softwares/Camera

Sl. No.	Name, type and configuration of hardware and software (version/release)

Details of Proposed Resource Deployment

Table 4.15 Details of Resource Deployment

Sr. No	Resource Level (Team leader, Survey Expert, Traffic Management/ Modelling Expert, etc.)	Responsibility/ Area of expertise (Advisor, Surveying, Analysis etc.)	Brief Description of Education Qualification & Certifications	No. of Resources to be deployed for the work

If this declaration is found to be incorrect at any point of time then without prejudice to any other action that may be taken as per the provisions of the applicable Act and Rules thereto prescribed by HUDCO, my/ our EMD/ security deposit may be forfeited in full and our bid, to the extent accepted, may be cancelled and my firm could be blacklisted.

Thanking you,

Name of the Bidder: -

Authorised Signatory: -

Seal of the Organization: -

Date_____

Place _____

Annexure 4.16

Certificate of Conformity/ No Deviation

I/We undersigned certify that, the qualification of resources and other information which I/ We have mentioned in the Technical bid, and which I/ We shall provide / supply if I/ We am/ are awarded with the work, are in conformity with the minimum specifications / qualifications of the bidding document and that there are no deviations of any kind from the requirement specifications. Also, I/ we have thoroughly read the bidding document and by signing this certificate, we hereby submit our token of unconditional acceptance to all the terms & conditions of the bidding document without any deviations and assumptions.

[Signature of authorized representative of Firm]

Date: Day/Month/Year

Full name of expert: _____

Full name of authorized representative: _____

Annexure 4.17**Financial Proposal (To be uploaded/filled on GEM Portal)****Table 4.16 Financial Proposal**

DESCRIPTION	Lumpsum Amount (Rs.) Including GST	
	In Figures	In Words
“Consultancy services for Traffic & Transportation Study and Socio-economic Survey for Master Plan of Rajgir Regional Planning Area and World Heritage Site of Nalanda Mahavihara, Bihar”		

Note: The bidders are required to quote a Lumpsum fee inclusive of GST

Authorized Signature:

Name and Title of Signatory:

Name of the Firm:

Address:

Annexure 4.18

HOUSING AND URBAN DEVELOPMENT CORPORATION LTD.

TRAFFIC & TRANSPORTATION STUDY AND SOCIO-ECONOMIC SURVEY FOR RAJGIR REGIONAL PLANNING AREA AND WHS OF NALANDA MAHAVIHARA

CLASSIFIED TRAFFIC VOLUME COUNT SURVEY

NAME OF LOCATION: _____

NAME OF ENUMERATOR: _____ DATE, DAY & TIME: _____

ROAD NAME: _____

DIRECTION: _____

TIME	FAST MOVING VEHICLES									SLOW MOVING VEHICLES					TRACTOR TRAILOR	Others (Specify)
	CAR/ JEEP/Taxi	MOTORISED		LCV	BUS	MINI BUS /TEMPO/VAN	2 Axle TRUCK	3 Axle TRUCK	MAV	CYCLE	CYCLE RIKSHAW	TRACTOR	ANIMAL CART	HAND CART		
		2-Wheeler.	3-Wheeler.													
From :00 To :15																
Total																
From :16 To :30																
Total																

Annexure 4.19

HOUSING AND URBAN DEVELOPMENT CORPORATION LTD.

TRAFFIC & TRANSPORTATION STUDY AND SOCIO-ECONOMIC SURVEY FOR RAJGIR REGIONAL PLANNING AREA AND WHS OF NALANDA MAHAVIHARA

CLASSIFIED TURNING MOVEMENT SURVEYS - JUNCTION

NAME OF LOCATION AND JUNCTION: _____ NAME OF ENUMERATOR: _____ DATE, _____ DAY _____ &
TIME: _____

APPROACH ROAD NAME: _____ DIRECTION: _____ TURN : _____

TIME	FAST MOVING VEHICLES									SLOW MOVING VEHICLES					TRACTOR TRAILOR	Others (Specify)
	CAR/ JEEP/Taxi	MOTORISED		LCV	BUS	MINI BUS /TEMPO/VAN	2 Axle TRUCK	3 Axle TRUCK	MAV	CYCLE	CYCLE RIKSHAW	TRACTOR	ANIMAL CART	HAND CART		
		2-Wheeler.	3-Wheeler.													
From :00 To :15																
Total																
From :16 To :30																
Total																

Annexure 4.19

HOUSING AND URBAN DEVELOPMENT CORPORATION LTD.

TRAFFIC & TRANSPORTATION STUDY AND SOCIO-ECONOMIC SURVEY FOR RAJGIR REGIONAL PLANNING AREA AND WHS OF NALANDA MAHAVIHARA

CLASSIFIED TURNING MOVEMENT SURVEYS - JUNCTION

NAME OF LOCATION AND JUNCTION: _____ NAME OF ENUMERATOR: _____ DATE, _____ DAY _____ &
TIME: _____

APPROACH ROAD NAME: _____ DIRECTION: _____ TURN : _____

TIME	FAST MOVING VEHICLES									SLOW MOVING VEHICLES					TRACTOR TRAILOR	Others (Specify)
	CAR/ JEEP/Taxi	MOTORISED		LCV	BUS	MINI BUS /TEMPO/VAN	2 Axle TRUCK	3 Axle TRUCK	MAV	CYCLE	CYCLE RIKSHAW	TRACTOR	ANIMAL CART	HAND CART		
		2-Wheeler.	3-Wheeler.													
From :00 To :15																
Total																
From :16 To :30																
Total																
HOURLY TOTAL																

HOUSING AND URBAN DEVELOPMENT CORPORATION LTD.

ORIGIN DESTINATION SURVEY (outer and inner cordon points)

Date, Day & Time:

Surveyor's Name:

[illegible]

1. 1-Car/jeep, 2-wheelers, 3-taxi, 4-cycle, 5- auto rickshaw, 6-Bus, 7- Truck

2. 1-work, 2-education, 3-recreational, 4- health, 5- religious,6- social, 7- return home,8- goods delivery, 9-if any other, specify.

* Drivers in case of taxi/ auto-rickshaw/ personal vehicle are not to be included.

3. Daily, weekly, fortnightly, monthly, occasionally.

HOUSING AND URBAN DEVELOPMENT CORPORATION LTD.

ON STREET PARKING SURVEY

[illegible]

Annexure 4.22

HOUSING AND URBAN DEVELOPMENT CORPORATION LTD.

TRAFFIC & TRANSPORTATION STUDY AND SOCIO-ECONOMIC SURVEY FOR RAJGIR REGIONAL PLANNING AREA AND WHS OF NALANDA MAHAVIHARA

[illegible]

Annexure 4.23

HOUSING AND URBAN DEVELOPMENT CORPORATION LTD.

TRAFFIC & TRANSPORTATION STUDY AND SOCIO-ECONOMIC SURVEY FOR RAJGIR REGIONAL PLANNING AREA AND WHS OF NALANDA MAHAVIHARA PASSENGER ORIGIN-DESTINATION SURVEY AT BUS TERMINAL/RAILWAY STATION/IPT STANDS

Survey Location:

Entry / Exit :

Duration of Survey: Morning Peak / Off Peak / Evening Peak

Railway Station/ Bus Terminal/ IPT Stand Name:

Date, Day & Time:

S. no	Origin	Destination	Mode used for Main Line Haul trip			Mode Choice (Access/ Dispersal) to terminal				Trip Purpose				Frequency (Daily/Weekly/Monthly)	Waiting time at stand/station/terminal
1	Area/Location	Area/Location	1	Rail	8	ISBT (Interstate Bus)	1	Rail	8	ISBT (Interstate Bus)	1	Work	8	Other	
			2	2 Wheeler	9	Local City Bus	2	2 Wheeler	9	Local City Bus	2	Business	9		
			3	Car	10	Cycle	3	Car	10	Cycle	3	Education			
	Land Mark	Land Mark	4	Taxi	11	Cycle Rickshaw	4	Taxi	11	Cycle Rickshaw	4	Social			
			5	Auto	12	Walk	5	Auto	12	Walk	5	Shopping			
			6	Shared Auto			6	Shared Auto			6	Recreational			
	City / Out side	City / Out side	7	Mini Bus			7	Mini Bus			7	Return Home			
2	Area/Location	Area/Location	1	Rail	8	ISBT (Interstate Bus)	1	Rail	8	ISBT (Interstate Bus)	1	Work	8	Other	
			2	2 Wheeler	9	Local City Bus	2	2 Wheeler	9	Local City Bus	2	Business	9		
			3	Car	10	Cycle	3	Car	10	Cycle	3	Education			
	Land Mark	Land Mark	4	Taxi	11	Cycle Rickshaw	4	Taxi	11	Cycle Rickshaw	4	Social			
			5	Auto	12	Walk	5	Auto	12	Walk	5	Shopping			
			6	Shared Auto			6	Shared Auto			6	Recreational			
	City / Out side	City / Out side	7	Mini Bus			7	Mini Bus			7	Return Home			
3	Area/Location	Area/Location	1	Rail	8	ISBT (Interstate Bus)	1	Rail	8	ISBT (Interstate Bus)	1	Work	8	Other	
			2	2 Wheeler	9	Local City Bus	2	2 Wheeler	9	Local City Bus	2	Business	9		
			3	Car	10	Cycle	3	Car	10	Cycle	3	Education			
	Land Mark	Land Mark	4	Taxi	11	Cycle Rickshaw	4	Taxi	11	Cycle Rickshaw	4	Social			
			5	Auto	12	Walk	5	Auto	12	Walk	5	Shopping			
			6	Shared Auto			6	Shared Auto			6	Recreational			
	City / Out side	City / Out side	7	Mini Bus			7	Mini Bus			7	Return Home			
	Area/Location	Area/Location	1	Rail	8	ISBT (Interstate Bus)	1	Rail	8	ISBT (Interstate Bus)	1	Work	8	Other	
			2	2 Wheeler	9	Local City Bus	2	2 Wheeler	9	Local City Bus	2	Business	9		
			3	Car	10	Cycle	3	Car	10	Cycle	3	Education			
	Land Mark	Land Mark	4	Taxi	11	Cycle Rickshaw	4	Taxi	11	Cycle Rickshaw	4	Social			
			5	Auto	12	Walk	5	Auto	12	Walk	5	Shopping			
			6	Shared Auto			6	Shared Auto			6	Recreational			
	City / Out side	City / Out side	7	Mini Bus			7	Mini Bus			7	Return Home			

Annexure 4.24**HOUSING AND URBAN DEVELOPMENT CORPORATION LTD.****TRAFFIC & TRANSPORTATION STUDY AND SOCIO-ECONOMIC SURVEY FOR RAJGIR REGIONAL PLANNING AREA AND WHS OF NALANDA MAHAVIHARA****BUS/IPT OPERATOR SURVEY****Location (Route):****Name of enumerator:****Date:**

Sample No.	Driver 1	Driver 2	Driver 3	Driver 4	Driver 5	Driver 6	Driver 7	Driver 8	Driver 9	Driver 10
Type of vehicle (Bus, IPT, Tonga, Cycle rickshaw)										
Age of driver										
Collection / day (Rs.)										
Age of the Vehicle										
Vehicle Capacity										
Ownership (owned/ Hired)										
Total Trips / Day										
Empty Trips/Day										
Average daily Km										
No. of passengers carried/day										
Parking place at night										
Rent per day if hired (Rs.)										
Cost per KM (RS.)										
Hours of Operations / day										
Route From ____To____										
Maintenance expenses (Rs.)										

HOUSING AND URBAN DEVELOPMENT CORPORATION LTD.

SPEED AND DELAY SURVEY

NAME OF THE ROAD :	FROM _____ TO _____
FROM KM _____ TO KM _____	DATE _____ TIME _____
NAME OF ENUMERATOR :	NAME OF SUPERVISOR: _____

[illegible]

Note: # Cause of delay: 1- Traffic signal/police control, 2- Stop sign, 3- Pedestrian crossing, 4- Right turn/U-turn junction, 5- general congestion, 6- accident, 7- parked vehicles, 8- pedestrian interference, 9- level crossing, 10- road repair, 11-Passenger boarding/alighting. 12 -Other delay (mention)

HOUSING AND URBAN DEVELOPMENT CORPORATION LTD.

ROAD NETWORK INVENTORY SURVEY

[illegible]

Note : BT – Bituminous, CC- Cement Concrete, GR- Gravel, ER - Earthen

* 1- On-street Parking/ 2-Vendors/ 3-Trees/ 4- Electric poles/ 5- Other obstacle

Annexure 4.27
HOUSING AND URBAN DEVELOPMENT CORPORATION LTD.
TRAFFIC & TRANSPORTATION STUDY AND SOCIO-ECONOMIC SURVEY FOR RAJGIR REGIONAL PLANNING AREA AND WHS
OF NALANDA MAHAVIHARA
HOUSEHOLD SOCIO-ECONOMIC SURVEY

Surveyor's Name:	Survey Form No.:	Survey Date:
Street Name:	Locality in (urban Areas)/Town/Ward no.	House No.
Village name:	Gram Panchayat:	Block:

OBSERVATIONAL SURVEY

1. No. of Floors a) Single Storey b) Double Storey c) Multi Storey (Specify)			
2. Housing Condition a) Good b) Liveable c) Dilapidated			
3a. Roof Material	3b. Wall Material	3c. Floor Material	
G – Grass/thatch/bamboo, P -Plastic/Polythene, T -Tile, W - Wood, S -Slate/Stone, Sh -G.I./Metal/Asbestos Sheets, B -Burnt Brick, M -Mud/Unburnt Brick, C -Concrete, O -Others			
4. Housing Typology a) Plotted b) Apartment c) Group Housing d) Squatter e) Serviced Land f) Tribal Settlement g) Village			
5. Accessibility to the house a) Motorable Pucca b) Non Motorable Pucca c) Motorable Kucha d) Non-Motorable Kucha			
6. Type of drainage channel a) Pucca covered b) Pucca uncovered c) Kutcha uncovered d) No Drainage			

QUESTIONNAIRE SURVEY

1. Household Size _____ 2. No. of Married Couples _____ 3. Family Type _____ (N – Nuclear, J – Joint, M – Multi Family)

S N	Item	1.	2.	3.	4.	5.	6.	7.	8.
1	Gender (M/F/O)								
2	Age								
3	Education Level IL – Illiterate, P -Primary, S - Secondary, H -Higher Secondary, G -Graduate, PG -Post Graduate, O -Other								
4	Have you taken any skill upgradation training in past 5 years? Y/N								
5	If yes to (4), mention the skill acquired								
6	Marital Status (M/NM)								
7	Differently Abled (Y/N)								
8	Occupation: U -Unskilled Manual Worker (Labourer/Servant), AL - Agriculture Labourer, F - Land owing farmer, S -Skilled Manual Worker (Carpenter, Mason, Handloom etc), L -Low Professional and Administrators (Clerks, Nurse, Postman), I -Intermediate Professionals (Teacher, Engineer, Manager), H -High Professional and Salaried Posts (Doctors, Lawyers, Architect), B -Business (Small Shops, Contractor), S -Student (Specify Field), A -Animal husbandry, FP - food processing/Agricultural produce, HH - Household Industry								
9	Sector of Occupation P -Primary, S -Secondary, T -Tertiary								
10	Bank Account (Y/N)								
11	Are you availing any loan? (Y/N)								
11a	If Y to 11. Mention source of loan: (ML money lender, GB; Govt Bank, PB: Pvt. Bank, SHG: Self Help Group, MFI: Micro Finance Institutions)								
11b	If Y to 11. The loan availed is for what purpose? A – Agriculture, I-Industry, HHI- Household Industry, HF- Housing Finance, SF_ Small finance from asset procurement (T Fridge) PI- Personal loan (Marriage etc) E - education								
11c	Have availed the loan under the Govt scheme or subsidy? (Y/N) IF, Y Mention scheme PMAY etc.								
12	Life Insurance (Y/N) (specify if under govt scheme)								
13	Secondary Source of Income L- Laborer, AL- Agricultural laborer, R -Rental Income, Ps -Pension, PT -Part Time Business/Contract, C -Consultation, O -Others								
14	Secondary Income (monthly): A <5000 B-5000-15000 C- 15000-30000 D-30000-50000 E >50000								
15	Total Monthly Income : A <5000 B-5000-15000 C-15000-30000 D-30000-50000 E >50000								
16	Do you have a ration card? (Y/N)								

4. Household Expenditure Monthly (Rs.)		
a. Domestic		%
b. Education		%
c. Health		%
d. Shopping		%
e. Travel		%
f. Rent		%
g. Recreation		%
h. Savings		%
i. Others		%

5. No. of Live Births in Last 1 Year _____
 6. Mother's age at Child Birth _____
 7. No. of Deaths in Last 1 year _____
 8a. M/F (age) _____
 8b. Cause of Death _____
 9. No. of Persons Migrated (gender) ____
 9a. Place of Migration _____
 9b. Reason for Migration _____
 J-Job, E-Education, M-Marriage, B-Business, H-Health, O-Others
 Specify

Annexure 4.27
HOUSING AND URBAN DEVELOPMENT CORPORATION LTD.
TRAFFIC & TRANSPORTATION STUDY AND SOCIO-ECONOMIC SURVEY FOR RAJGIR REGIONAL PLANNING AREA AND WHS
OF NALANDA MAHAVIHARA
HOUSEHOLD SOCIO-ECONOMIC SURVEY

Housing Details

10. **House Ownership Status:** a. Owned b. Rented c. Leasehold d. Other (specify)
 10a. **If owned, land price** when bought _____ **Present Price** _____
 10b. **If rented, rent** _____
 11. **Age of house** a. <10 years b. 10-25 c. 25-40 d. 40-80 e. >80
 11a. **Plot size :** _____ 11b. **Carpet Area:** _____ 11c. **Building height:** _____
 12. **Area of unit** _____
 13. **No. of Habitable Rooms** a) No room b) 1 c) 2 d) 3 e) 4 f) >4
 14. **No. of Bed Rooms** a) No room b) 1 c) 2 d) 3 e) 4 f) >4
 15. **Plan Layout** a) Regular b) Irregular
 16. **Housing Finance** a) None b) Bank Loan c) Money Lender d) Govt. Housing Scheme (specify)
 17. **Degree of Satisfaction** (Scale 1-5) a) with natural ventilation _____ b) with natural lighting _____

Water Supply

18. Water Source

	Source 1	Distance	Source 2	Distance
18a. Potable				
18b. Non-Potable				

19. **Is water quality good?** (Y/N) _____ If No, why? _____ a. Odour b. Suspended Particles c. Colour D. Hardness
 20. 20a. **Water supply timings** _____
 20b. **Duration** _____
 20c. **Adequacy of supply** Scarce _____ enough _____ more than enough _____ Scarce only in dry _____
 20d. **Quality of water** Good _____ Poor _____ Unusable _____
 20e. **Are you willing to pay for municipal water services?** Y/N
 20f. If yes, are you willing to pay (monthly, Rs.) _____ 300/200/100/50
 21. **Do you practice rain water harvesting** Y/N 21b. If not, why _____
 22. **Location of kitchen** a) NA b) Separate within the house c) Sharing with a room in the house d) Separate outside the house

Physical Infrastructure

- 23a. **Type of toilet facility** a) Private b) Community c) Open defecation If private, a) attached b) semi-attached c) detached
 23b. **If community, is it sufficient?** Y/N is it maintained? Y/N Distance from house _____
 24. **Sewage disposal system** a. Pit latrine b. Municipal connection c. Septic tank d. Other, specify
 25. **Areas where open defecation takes place** _____
 26. **Issues and suggestions** _____
 27. **Drainage channel** a. Connected b. Non connected
 28. **Is there clogging in drains?** Y/N If yes 28a. which areas? _____ 28b. How often are they cleaned _____
 29. **Do drains get overflooded?** Y/N If yes 29a. which areas? _____ 29b. Issues and suggestions _____

Electricity

30. **Electricity source** a) Solar Power b) Municipal Connection c) Illegal Connection d) Others, specify
 31. **Average monthly bill** (Rs.) _____
 32. **Duration of power cuts** (if any) _____

Waste disposal

33. **Garbage disposal** a. Door to door b. Road-side c. Open drain d. Community bins e. Private collector f. Burning g. Other, specify
 33a. **If door to door, frequency** _____
 33b. If community bin, capacity _____
 33c. **Are you willing to pay for door to door collection?** Y/N If yes, are you willing to pay (monthly, Rs.) _____ 300/200/100/50
 34. **Are the streets swept?** Y/N

35. Rate the service (out of 5)

Item	1 (very poor)	2 (Poor)	3 (Fair)	4 (Good)	5 (Excellent)
Water supply					
Sewerage					
Solid Waste					
Electricity					
Open spaces					
Housing condition					

Annexure 4.27

HOUSING AND URBAN DEVELOPMENT CORPORATION LTD.

TRAFFIC & TRANSPORTATION STUDY AND SOCIO-ECONOMIC SURVEY FOR RAJGIR REGIONAL PLANNING AREA AND WHS OF NALANDA MAHAVIHARA

HOUSEHOLD SOCIO-ECONOMIC SURVEY

36. **Cooking fuel** a. Gas cylinder b. Gas pipeline c. Wood/coal

37. **Asset Ownership** (Tick if applicable) (if yes, mention number of asset)

Asset	Yes	NO
Television		
Internet connection		
Refrigerator		
Cooler/ AC		
Mobile Phone		
Telephone		
Laptop		
Cycle		
Two- wheeler		
Four wheeler		

38. **Access to facilities**

38. A. Education facilities										
Facility	Primary school		Secondary school		College		Technical institute		University	
Distance to facility	< 1km		< 1km		< 1km		< 1km		< 1km	
	1 -5 Km		1 -5 Km		1 -5 Km		1 -5 Km		1 -5 Km	
	5-10 km		5-10 km		5-10 km		5-10 km		5-10 km	
	>10 Km		>10 Km		>10 Km		>10 Km		>10 Km	
How satisfactory is the service?	Excellent		Excellent		Excellent		Excellent		Excellent	
	Good		Good		Good		Good		Good	
	Average		Average		Average		Average		Average	
	Poor		Poor		Poor		Poor		Poor	
	V. poor		V. poor		V. poor		V. poor		V. poor	

38. B. Health facilities										
Facility	Govt. Hospital		Pvt. Hospital		Govt. Health Centre		Pvt. Health Centre		Maternity Home	
Distance to facility	< 1km		< 1km		< 1km		< 1km		< 1km	
	1 -5 Km		1 -5 Km		1 -5 Km		1 -5 Km		1 -5 Km	
	5-10 km		5-10 km		5-10 km		5-10 km		5-10 km	
	>10 Km		>10 Km		>10 Km		>10 Km		>10 Km	
How satisfactory is the service?	Excellent		Excellent		Excellent		Excellent		Excellent	
	Good		Good		Good		Good		Good	
	Average		Average		Average		Average		Average	
	Poor		Poor		Poor		Poor		Poor	
	V. poor		V. poor		V. poor		V. poor		V. poor	

38. C. Market facilities									
Facility	Neighborhood shopping			Periodical shopping/ Main Market			Luxury/Occasional shopping		
Distance to facility	< 1km			< 1km			< 1km		
	1 -5 Km			1 -5 Km			1 -5 Km		
	5-10 km			5-10 km			5-10 km		
	>10 Km			>10 Km			>10 Km		
Quality of service	Excellent			Excellent			Excellent		
	Good			Good			Good		
	Average			Average			Average		
	Poor			Poor			Poor		
	V. poor			V. poor			V. poor		

38. D. Utilities/Recreation facilities												
Facility	Post Office		Bank		Bus stop		Park		Play ground		Cinema halls	
Distance to facility	< 1km		< 1km		< 1km		< 1km		< 1km		< 1km	
	1 -5 Km		1 -5 Km		1 -5 Km		1 -5 Km		1 -5 Km		1 -5 Km	
	5-10 km		5-10 km		5-10 km		5-10 km		5-10 km		5-10 km	
	>10 Km		>10 Km		>10 Km		>10 Km		>10 Km		>10 Km	
Quality of service	Excellent		Excellent		Excellent		Excellent		Excellent		Excellent	
	Good		Good		Good		Good		Good		Good	
	Average		Average		Average		Average		Average		Average	
	Poor		Poor		Poor		Poor		Poor		Poor	
	V. poor		V. poor		V. poor		V. poor		V. poor		V. poor	

Annexure 4.27
HOUSING AND URBAN DEVELOPMENT CORPORATION LTD.
TRAFFIC & TRANSPORTATION STUDY AND SOCIO-ECONOMIC SURVEY FOR RAJGIR REGIONAL PLANNING AREA AND WHS
OF NALANDA MAHAVIHARA
HOUSEHOLD SOCIO-ECONOMIC SURVEY

39. Identify the top three problems in Rajgir/Rajgir Planning area from the list below in order of importance. (1 being the most significant problem 14 being the least significant problem)

List of Problems	RANK
Shelter -Better/more housing required	
Air Pollution	
Drainage/water logging	
Poor Drinking water facility	
Poor sanitation/solid waste Management	
Inadequate Regional connectivity	
Inadequate Intra-city transport network	
Traffic congestion	
Poor Public Transport	
Lack of Employment	
Poor education facilities	
Poor health facilities	
Any other (specify)	

40. Agricultural Activity

- 40a. Do you own Agriculture land? Y/N _____
- 40b. Agriculture land under cultivation _____
- 40c. Crops grown in one year: _____
- 40d. Sources of irrigation: Ground water-----Canal _____ Rain dependent _____ Other(Specify) _____
- 40e. Have you faced shortage of water for agriculture? Y/N If yes for which crops? _____
- 40f. Are you aware of/using water conservation techniques? Y/N _____ If yes, which technique used: _____
- 40g. Do you use pesticides? Y/N _____
- 40h. Do you use fertilizers? Y/N _____
- 40i. Income from agriculture _____ (A:<5000, B: 5000-15000, C: 15000-30000, D:30000-50000, E>50000)
- 40j. What do you do with excess produce? (Both crop and cattle produce) _____

- 40k. Do you own any milch cattle? Specify type and number _____
- 40l. Income from cattle (if any): _____ ((A:<5000, B: 5000-15000, C: 15000-30000, D:30000-50000, E>50000)
- 40m. Do you utilize the dung as manure? (Y/N) _____
- 40n. Expenses incurred (annual) in maintaining cattle: _____ Other issues faced in keeping cattle: _____
- 40o. How do you dispose of dead/diseased cattle in your village ? Specify _____
- 40p. Do you use PDS (Ration shops)? Y/N _____
- 40q. Any other issues faced: _____

41. Household OD survey

41a. Trip summary

Details of each trip									
S. no.	Member no. ¹	Traffic Mode ²	No. in Vehicle	Where did this trip begin? ³	Where did this trip end? ³	Trip purpose ⁴	Travel time (Minutes)	Travel cost (rs.)	Travel distance (km)

Note:

¹ Referring to the numbers described in "Table under Sno. 1. Members of Household"

² 1.Bus, 2.Mini Bus, 3.Car, 4.Two-wheeler (motorcycle). 5.Three-wheeler (Auto-rickshaw), 6.Bicycle, 7.Railway, 8.Walk, 9. Tonga 10. Others (specify)

³ Put zone no. /village name/localities in case of Urban areas

⁴ 1.Going to work, 2.Going to school, 3.Going home, 4.Shopping, 5.Leisure, 6.Business, 7- Going to hospital

Annexure 4.27
HOUSING AND URBAN DEVELOPMENT CORPORATION LTD.
TRAFFIC & TRANSPORTATION STUDY AND SOCIO-ECONOMIC SURVEY FOR RAJGIR REGIONAL PLANNING AREA AND WHS
OF NALANDA MAHAVIHARA
HOUSEHOLD SOCIO-ECONOMIC SURVEY
(Section to be conducted only for villages around Nalanda World Heritage site)

Q 42. Are you aware that the Nalanda ruins is a UNESCO World Heritage site and one of the only two world heritage sites in Bihar
Y/N _____

Q 43. Does the presence of Nalanda ruins impact your daily life in any way
Y/ N _____

Q 44. If yes to Q43, Please choose the correct options below to explain the impact on daily life (any two):
a. The site helps create tourism and employment opportunity for the local community, which benefits me.
b. I feel pride due to national and international interest in the area
c. The area has received development due to the presence of the world heritage site
d. The restrictions due to World Heritage site create problems in my day to day life

Q 45. Which are the priority areas for development in your villages/ locality (indicate and rank any three)
. (1 being the highest priority and three being the least)

List of Problems	RANK
Shelter -Better/more housing required	
Reduction in traffic and pollution	
Drainage/water logging improvement	
Improving drinking water and sanitation	
Improving tourist facilities so that residents can also benefit	
Creating parking lots for tourist vehicles	
Improvement of roads	
Creating job opportunities for local people	
Any other (please specify	