

**GOVERNMENT OF BIHAR  
RURAL WORKS DEPARTMENT**

**Expression of Interest cum Request for Proposal  
(Notice No:-RWD/MR/HQ/AI/2021-22/01)**

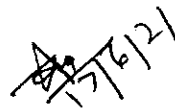
**for**

**Consultancy Services for Development of Technology based Intelligent Rural  
Road Maintenance and Monitoring System**

1. RWD intends to develop an online road maintenance and monitoring system using 3-D Imaging device mounted on vehicle followed by the analysis of data captured and report generation there off to manage assets on its rural road network in an efficient and effective manner. **The proposed system is planned to be developed for Hajipur division in Vaishali District on Pilot Basis.**
2. Proposals are invited from prospective **Knowledge Partners** of national and international repute to provide the aforesaid consulting services.
3. The Knowledge Partner will be selected through Quality and Cost Based Selection (QCBS) procedure based on the information provided which demonstrates that they have required know how to perform the services and are meeting the eligibility criteria as laid out in the EOI cum RFP.
4. The detailed EOI cum RFP can be downloaded from the website : [www.rwdbihar.gov.in](http://www.rwdbihar.gov.in) from 01/07/2021,15:00 Hrs to 15/07/2021, 17:00 Hrs. Further information can be obtained from Sri Amrendra Kumar Sinha, CE-2 cum Nodal Officer (MR) on Mobile No.8986915038 at the address below during office hours i.e. 10:00 to 17:00 Hrs from 01/07/2021 to 15/07/2021.

**Engineer-in-Chief  
Rural Works Department  
5<sup>th</sup> Floor, Vishweshwaraiya Bhawan  
Bailey Road, Patna-800001**

5. This EOI cum RFP does not entail any commitment on the part of under signee, either financial or otherwise. Under signee reserves the right to accept or reject any or all proposal without incurring any obligation to inform the affected applicant/s of the grounds.

  
(Ashok Kumar Mishra)  
Engineer-in- Chief

EXPRESSION OF INTEREST

CUM

REQUEST FOR PROPOSAL

CONSULTANCY SERVICES FOR  
DEVELOPMENT OF TECHNOLOGY  
BASED INTELLIGENT RURAL  
ROAD MAINTENANCE AND  
MONITORING SYSTEM

RURAL WORKS DEPARTMENT

GOVERNMENT OF BIHAR

June 2021

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## DISCLAIMER

1. The information contained in this Expression of Interest cum Request for Proposal document (“EOI cum RFP”) or subsequently provided to Applicants, whether verbally or in documentary or any other form by or on behalf of the Client or any of its employees or advisers, is provided to Applicants on the terms and conditions set out in this EOI cum RFP and such other terms and conditions subject to which such information is provided.
2. This EOI cum RFP document is neither an agreement nor an offer by the Rural Works Department (RWD) to the prospective Applicants or any other person. The purpose of this EOI cum RFP is to provide information to the interested parties that may be useful to them in the formulation of their proposal pursuant to this EOI cum RFP.
3. RWD does not make any representation or warranty as to the accuracy, reliability or completeness of the information in this EOI cum RFP document and it is not possible for RWD to consider particular needs of each party who reads or uses this EOI cum RFP document. This EOI cum RFP includes statements, which reflect various assumptions, and assessments arrived at by RWD in relation to the consultancy. Such assumptions, assessments and statements do not purport to contain all the information that each Applicant may require. Each prospective Applicant should conduct its own investigations and analyses and check the accuracy, reliability and completeness of the information provided in this EOI cum RFP document and obtains independent advice from appropriate sources.
4. RWD will not have any liability to any prospective Consultancy Company/ Firm/ Consortium or any other person under any laws (including without limitation the law of contract, tort), the principles of equity, restitution or unjust enrichment or otherwise for any loss, expense or damage which may arise from or be incurred or suffered in connection with anything contained in this EOI cum RFP document, any matter deemed to form part of this EOI cum RFP document, the award of the Assignment, the information and any other information supplied by or on behalf of RWD or their employees, any Knowledge Partners or otherwise arising in any way from the selection process for the Assignment. RWD will also not be liable in any manner whether resulting from negligence or otherwise however caused arising from reliance of any Applicant upon any statements contained in this EOI cum RFP.
5. The Applicant shall bear all its costs associated with or relating to the preparation and submission of its Proposal including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by the Client or any other costs incurred in connection with or relating to its Proposal. All such costs and expenses will remain with the Applicant and the Client shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by an Applicant in preparation or submission of the Proposal, regardless of the conduct or outcome of the Selection Process.
6. RWD may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumption contained in this EOI cum RFP



7. RWD will not be responsible for any delay in receiving the proposals. The issue of this EOI cum RFP does not imply that RWD is bound to select an Applicant or to appoint the Successful Applicant, as the case may be, for the consultancy and RWD reserves the right to accept / reject any or all of proposals submitted in response to this EOI cum RFP document at any stage without assigning any reasons whatsoever. RWD also reserves the right to withhold or withdraw the process at any stage with intimation to all who submitted the EOI cum RFP Application.
8. The information given is not an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. RWD accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on the law expressed herein.

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# PART- I

## Section-1. Letter of Invitation

EOI cum RFP No. - \_\_\_\_\_

Dated ...../...../.....  
Vishweshwaraiya Bhawan, Patna

Dear Mr. / Ms.

1. Rural Road Connectivity, and its sustained availability, is a key component of Rural Development as it assures continuing access to economic and social services and thereby generates sustained increase in agricultural incomes and productive employment opportunities. It is also as a result, a vital ingredient in ensuring sustainable poverty reduction, which demands a permanent rural connectivity, encompassing a high level of quality of construction followed by continuous post-construction maintenance of the road asset and in fact of the entire network.
2. Rural Works Department over the years developed into a big and prestigious works organisation of the state Government of Bihar entrusted with the ambitious responsibility of connecting about 1.0 lac rural habitations with populations 250 and above. This entails construction of over 1.20 Lac Km of rural roads under the centrally sponsored scheme of Pradhan Mantri Gram Sadak Yojana (PMGSY) and state sponsored Mukhya Mantri Gram Sampark Yojana (MMGSY) along with a few more state schemes. Task of connecting all eligible habitations with an all-weather road has been substantially completed and the network already in place faces a challenging task of maintenance and rehabilitation.
3. As a step forward, RWD intends to develop an online maintenance and monitoring system using 3-D Imaging device mounted on vehicle followed by the analysis of data captured and report generation there off to manage assets on its rural road network in an efficient and effective manner. **The proposed system is planned to be developed for Hajipur division in Vaishali District on Pilot Basis.**
4. The objective of the proposed is to improve and implement a sustainable methodology for data collection of the rural road assets; analysis of the support data and hosting of the system at a secured centralized facility; use tools in the application to identify, evaluate, select, and prioritize road/bridge maintenance works under distress; and disseminate asset information within the department for necessary use as deemed fit.



5. The Client now invites proposals from prospective Knowledge Partners of national and international repute to provide the following consulting services (hereinafter called "Services"): **Consultancy Services for Development of Online Intelligent Maintenance and monitoring System on Pilot Basis ( Hajipur Division) in Vaishali District in the state of Bihar.** More details on the Services are provided in the Terms of Reference.
6. This Expression of Interest cum Request for Proposal (EOI cum RFP) is open to all those eligible firms who are interested to participate in the bidding provided they meet eligibility criteria's.
- ~~7. The Knowledge Partner will be selected under Quality and Cost Based Selection (QCBS) procedures as described in this EOI cum RFP.~~
8. Details of the proposal submission date, time and address are as provided in the EOI cum RFP being issued to the Knowledge Partners.

Yours sincerely,



**Engineer in Chief**

Rural Works Department

5<sup>th</sup> Floor, Vishweshwaraiya Bhawan

Off-Bailey Road, Patna - 800001

E-mail:encrwdbihar@gmail.com



## Section-2

### Instructions to Knowledge Partner (ITC) and Data Sheet

1. **Introduction**
  - 1.1 The Client named intends to select a Knowledge Partner in accordance with the method of selection as Quality and Cost Based Selection.
  - 1.2 The interested Knowledge Partner are invited to submit a Technical Proposal, for consulting services required for the assignment. The submitted proposal will be the basis for negotiating and ultimately signing the Contract with the selected Knowledge Partner.
  - 1.3 The Knowledge Partner should familiarize themselves with the local conditions and take them into account in preparing their Proposals.
  - 1.4 The Client will timely provide, at no cost to the Knowledge Partner, the inputs, relevant project data, and reports required for the preparation of the Knowledge Partner's Proposal.
2. **Conflict of Interest**
  - 2.1 The Knowledge Partner is required to provide professional, objective, and impartial advice, at all times holding the Client's interest's paramount, strictly avoiding conflicts with other assignments or its own corporate interests and acting without any consideration for future work.
  - 2.2 The Knowledge Partner has an obligation to disclose to the Client any situation of actual or potential conflict that impacts its capacity to serve the best interest of its Client. Failure to disclose such situations may lead to the disqualification of the Knowledge Partner or the termination of its Contract and/or sanctions by the Client.
    - 2.2.1 Without limitation on the generality of the foregoing, the Knowledge Partner shall not be hired under the circumstances set forth below:
      - (i) Conflict between consulting activities and procurement of goods, works or non-consulting services: a firm that has been engaged by the Client to provide goods, works, or non-consulting services for a project, or any of its Affiliates, shall be disqualified from providing consulting services resulting from or directly related to those goods, works, or non-consulting services. Conversely, a firm hired to provide consulting services for the preparation or implementation of a project, or any of its Affiliates, shall be disqualified from subsequently providing goods or works or non-consulting services resulting from or directly related to the consulting
- a. **Conflicting activities**









services for such preparation or implementation.

**b. Conflicting assignments**

(ii) Conflict among consulting assignments: a Knowledge Partner (including its Experts and Sub-Knowledge Partners) or any of its Affiliates shall not be hired for any assignment that, by its nature, may be in conflict with another assignment of the Knowledge Partner for the same or for another Client.

**c. Conflicting relationships**

(iii) Relationship with the Client's staff: a Knowledge Partner (including its Experts and Sub-Knowledge Partners) that has a close business or family relationship with a professional staff of the client who are directly or indirectly involved in any part of (i) the preparation of the Terms of Reference for the assignment, (ii) the selection process for the Contract, or (iii) the supervision of the Contract, may not be awarded a Contract, unless the conflict stemming from this relationship has been resolved in a manner acceptable to the client throughout the selection process and the execution of the Contract.

**3. Unfair Competitive Advantage**

3.1 Fairness and transparency in the selection process require that the Knowledge Partners or their Affiliates competing for a specific assignment do not derive a competitive advantage from having provided consulting services related to the assignment in question.

**4. Corrupt and Fraudulent Practices**

4.1 The client requires compliance with its policy in regard to corrupt and fraudulent practices as set forth in Section 3.

4.2 In further pursuance of this policy, Knowledge Partners shall permit and shall cause their agents, Experts, Sub-Knowledge Partners, sub-contractors, services providers, or suppliers to permit the Client to inspect all accounts, records, and other documents relating to the submission of the Proposal and contract performance (in case of an award), and to have them audited by auditors appointed by the Client.

**5. Eligibility**

5.1 The Client permits Knowledge Partners (individuals and firms, including Joint Ventures and their individual members) to offer consulting services for projects being undertaken by Client.

5.2 Furthermore, it is the Knowledge Partner's responsibility to ensure that its Experts, joint venture members, Sub-Knowledge Partners, agents (declared or not), sub-contractors, service providers, suppliers and/or their employees meet the eligibility requirements as established by the Client in the Applicable Guidelines.

5.3 As an exception to the foregoing Clauses 5.1 and 5.2

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above:

A firm or an individual sanctioned by client in accordance with the above Clause 4.1 or in accordance with "Anti-Corruption Guidelines" shall be ineligible to be awarded a contract, or to benefit from a contract, financially or otherwise, during such period of time as the client shall determine.

6. The Knowledge Partner would be appointed for until the end of the project with the provision that either party (Client or the Knowledge Partner) may terminate the contract by giving each other a 45 days notice without specifying any reason.
7. Interested Knowledge Partner are invited to submit their proposals for the assignment, which must include a **Technical Proposal**.
8. It may be noted that (i) the costs of preparing the proposal are not reimbursable, and (ii) client is not bound to accept any of the proposals submitted with regards to this RFP.
9. The Knowledge Partner is required to provide professional, objective and impartial service and at all times and hold the project's interest paramount, without any consideration for future work and strictly avoid conflicts with other assignments or their own corporate interests.
10. The Knowledge Partner has an obligation to disclose any situation of actual, or potential conflict, that impacts its capacity to serve the best interest of client, or that may be reasonably perceived as having this effect. Failure to disclose such situations by the Knowledge Partner may lead to disqualification or termination of the contract.
11. The Knowledge Partner must observe the highest standards of ethics during the selection and execution of the contract. Client may reject a proposal at any stage if it is found that the firm recommended for award has indulged in corrupt or fraudulent activities in competing for the contract in question and may also declare a firm ineligible or blacklist the firm, either indefinitely or for a stated period of time.
12. **Minimum Eligibility Criteria** (Refer Section 2-D-1 Format for Supporting requirement/Annexures/Standard formats)
  - (a) The Knowledge Partner must have been in operation for a minimum of 01 years as on the date of the issue of this RFP and have relevant expertise in the area.
  - (b) The Knowledge Partner must have a presence in India.
  - (c) The Knowledge Partner should be able to provide a qualified, dedicated servicing and research team, for undertaking the said work and study. The Knowledge Partner team would work closely with Client.
  - (c) The Knowledge Partner should have never been black-listed ever by any department of the Government of India till the date of issue of this RFP.



### 13. Terms of Reference

- 13.1 Introduction:** There is a need for a faceless autonomous road monitoring and maintenance system for rural roads. Rural roads in India are commonly referred to as Other District Roads (ODR) provide connectivity by way of All-weather roads to unconnected habitations, which are serving rural areas and providing them with outlets to market centres, block development headquarters or major district roads. They connect villages. As rural roads are access to economic and social infrastructure and services thereby generating improved agriculture income, access to basic health & education facilities and occupational prospects in rural areas. This in real sense contributes to overall socio-economic development of the region. Rural Works Department manages rural roads in Bihar under PMGSY and MMGSY schemes. The road development under these schemes need proper monitoring for identification and rectification of the pavement damage (that is visible at the surface of the pavement is called Surface Distress) like Cracks, Potholes, Rutting, Bleeding etc, due to traffic road usage and extreme climate conditions.
- 13.2** Bihar has about 1.2 lakhs kilometers of rural roads and new roads being developed every year, thus maintaining motorable year on year such a huge asset is an ardent task for RWD. RWD has Internet Technologies Infrastructure like MIS etc in place for managing the road assets. Now RWD is looking to adapt new state of art technologies, solutions and system for road monitoring and maintenance. RWD intends to roll out an autonomous faceless workflow for gathering road distress and road maintenance based on latest modern IT solution/Technologies.
- 13.3** To roll out such a solution/process for the entire state of Bihar, it is essential to evaluate all the candidate solutions and technologies. RWD intends to run a Pilot proof of concept project for Hajipur Division in Vaishali District, where interested system/solution integrations/providers can demonstrate their solution and technologies.
- 14. Objective:** Here are the key objectives that are defined for the faceless autonomous road monitoring and maintenance system that RWD intends to have a RMMS (Remote Maintenance Monitoring System) solution.
- 14.1** RWD intends to rollout a sustainable and expandable application that can advance and implement a viable method of autonomous road network distress data acquisitions, an application that can process these distress and road condition analysis along with geo-tagged location, type of distress, road attributes like road name, scheme under which road was developed and maintained, contractor & engineer responsible for maintaining that road, last condition of road etc. Hosting of this application at a secured location.
- 14.2** Requirements for Proof of Concept for the RMS
- Cover approx.1000Kms of Rural Roads in Hajipur Division in Vaishali District.
  - Use automatic multisensory solution for road monitoring system.
  - The system is mounted on the vehicle.

- d) Identification of Cracks, Potholes, Crocodile Cracks and similar deformities on rural roads.
- e) The defects mentioned above be geo-tagged (based on GPS).
- f) Display colored differences for different issues.
- g) Display polygon on map.
- h) Display start and end point of covered road stretch.
- i) Display captured video of road stretch along with issues (cracks, potholes, etc)
- j) Display statistics for number and type of issues, condition category (Good, Average, Poor), Road stretch in kms and similar statistics with configurable thresholds.
- k) The existing GIS system with current UI to be integrated and display road monitoring parameters.
- l) Application from Government/Private R&D organizations are welcome.
- m) Acceptance criteria will be to meet the objectives.

**15. Scope of Work:** The Scope of services will include but not limited to the following:

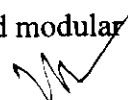
**15.1 Services:**

- a) Collection of historical available data with the department which may be helpful to the Knowledge Partner in prioritizing the Data collection activity.
- b) Data collection on the type of distress on the roads such as pothole, depression, cracks, rutting, shoving, upheal, surface deterioration, edge failure etc. to be taken continuously with an logic that the identified defects would be communicated to defect rectifying agency duly instructing them to get the defect repaired/rectified within the designated response time and the entire process of would be completed within the envisaged time period of 30 days.
- c) All surveyed assets should be tagged with geo-coordinates/geo-location.
- d) Data cleansing and removing abnormalities to make data ready for analysis.
- e) Development of IT application depending upon the type of distress collected.
- f) Analysis of the data collected through the IT Application developed.
- g) Generation of Statistics for each road using the distress information.
- h) Develop a pavement condition database and derive a predictive maintenance schedule.
- i) Maintaining a Dashboard with all essential features for the purpose of monitoring.
- j) Regular updation required for application security and application documentation.
- k) Perform operations and maintenance work related to re-training the model, bug fixing, enhancements etc.
- l) Ensure the highest standard of safety, security and health for all road surveyors and also all other persons entering the site for survey in conformance with legal provisions, codes, standards and good practices.

**15.2 IT Components:** Hardware Requirements: Server space for the above objective will be provided by RWD and other survey and technology-based hardware is to borne by the eligible consultancy.

**15.3 Software Interventions:**

- a) Should have a uniform, map-based and modular interface for easy acceptability and decision making.



- b) Allow for menus, interface and reports in English.
- c) Be designed according to the accepted international practices (e.g. common user interface, data import/export standards, truth-in-data standards).
- d) Be web-based to ensure operability and data uploading / downloading using the internet.
- e) Have data entry forms (with in-built validation routines), including labels in English language, so that the user does not need to use a table view for entering data.
- f) Have an inbuilt alert system to ensure updating of road and pavement condition data periodically and flag the year of data collection while analysing for each parameter.
- g) Be able to check the data accuracy, inconsistencies, beyond the acceptable ranges.
- h) Be able to export to Excel / Access / Dbf etc. the road network data stored/viewed in respective modules along with road attributes for road sections.
- i) Accommodate various network numbering rules, including any change in road classification, no. etc.
- j) Preserve the integrity of the current and historical data for the sections of road subject to split/join or modification as per requirements.
- k) Store additional data that the client may require, with their attributes.
- l) Allow the storage of data for different time periods, to enable comparison of such data. There should be facility to view/select the most current data or for a user defined period.
- m) Have the facility to display multi-media objects (e.g. geo-tagged photographs, video clips etc.) as attributes of data items. It should allow viewing of video data at a road location, bridge, culvert or any asset, based on the chainage or spatial location, or by selecting them on the map.
  - a) Roads surveyed to be digitally available on maps with proper color coding assigned for different type of distress.
  - b) Maps to be zoomed in and out to 100 meter resolution of the road showing entire road network if needed.
  - c) By clicking on the road, the condition of the road at that particular chainage should get displayed.
  - d) Road wise analytics of the distress condition divided into Good/Average/Poor categories.
  - e) Precise geo-location of road assets with latitude and longitude duly plotted on maps with condition and coding of roads.
  - f) Facility to compare road condition over multiple surveys (time) to identify newly emerged poor driving condition spots or repaired locations resulting in good driving condition.

#### 15.4 Other Requirements

- a) Vehicles having required sensor equipment fitted on each vehicle for identification of defects including video recording of defects . where Vehicle will be provided by RWD.
- b) Required no. of hardware like desktops/ laptops/ printers/scanners etc.
- c) Trained manpower as per this TOR.







### 15.5 Staffing and Other Inputs:

The firm is expected to provide the following personnel:

| Position    | Designation                        | Nos.  |
|-------------|------------------------------------|-------|
| Position K1 | Principal Advisor                  | 1 No. |
| Position K2 | Product Architect                  | 1 No. |
| Position K3 | Technology Research Scientist      | 1 No. |
| Position K4 | Practices Manager                  | 1 No. |
| Position K5 | Research Scientist (Deep Learning) | 1 No. |
| Position K6 | Research Developer                 | 1 No. |

### 15.6 Basic Qualification of the Team:

| Sl. No. | Key Staff                          | Qualification and Experience   | Overall Responsibility   |
|---------|------------------------------------|--|--|
| 1.      | Principal Advisor                  | Masters/PhD with 18+ years of experience in Industry and Academia. Good record of innovation at global level, managing technical teams and execution of projects.                                  | Overall Program Management   |
| 2.      | Product Architect                  | Bachelors/Masters degree from top-tier institute with 12+ years of industry experience in product design and execution of multiple projects. Handling of AI/ML/DL, IoT and Data Analytics projects | Designing Overall Requirements of the project in an optimised manner (Including Hardware and Software) |
| 3.      | Technology Research Scientist      | Bachelors/Masters degree from top-tier institute with 6+ years of industry experience in AI/ML/DL.   | Develop the application as per the requirement of the project.   |
| 4.      | Practices Manager                  | Bachelors/Masters degree from top-tier institute with 8+ years of industry experience in handling/managing customer requests and liaison.  | Responsible for data input into the model and any other IT support during the project duration.        |
| 5.      | Research Scientist (Deep Learning) | Bachelors/Masters degree with 5+ years of industry experience in AI/ML/DL algorithm development.   | Responsible for data input into the model and any other IT support during the project duration.        |
| 6.      | Research Developer                 | Bachelors/Masters degree with 3+ years of industry experience in data analytics and Web/GUI algorithm development and integration  | Overall responsible to ensure accuracy of data collection and its analysis.                            |

Note:

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Age of the key expert proposed should not be more that 60 (sixty) years on the last day of submission of the proposal.

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The Authority reserves the right to ask for details regarding the proof of age, qualification, experience and association of the key experts

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- ✦ The key experts proposed by the Knowledge Partner should be available for presentations/ discussions/ meetings with the client
- ✦ Curriculum Vitae for each key expert to be provided in the proposal with a summary of experiences

**16. Project Duration:**

The overall duration of the project shall be **12 months** (from the date of signing of the contract) with option to renew the contract every year upon satisfactory performance of the Knowledge Partner.

**17. Facilities:**

The Consultancy Agency will have to make his own arrangements for office, utilities, accommodation and should include cost of all these elements in his Financial Offer.

**18. Additional Services:**

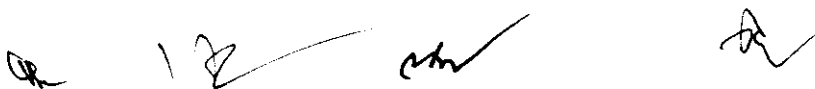
The Consultancy Agency shall, if so required by the Employer, provide any additional services at man month rates as per the contract, or as mutually agreed upon as a variation order.

**19. Performance Security:**

The Consultancy firm shall be required to submit acceptable Fixed Deposit Receipt (FDR)/Unconditional Bank Guarantees issued from scheduled bank situated within the State of Bihar for an amount equal to 5% of the accepted consultancy cost towards Performance Security whose validity should cover entire duration of the consultancy period plus **6 months**. If performance of the Consultancy Agency is not found satisfactory this security will be liable to be forfeited. In addition, the Consultancy Agency shall be liable for action under relevant clauses of the Contract.

**20. Penalties:**

In case Knowledge Partner fails to render satisfactory services (to be determined by the State Nodal Agency based inter-alia on PIU report) with regard to any portion of the Activities comprising the Consultancy or in providing timely Reports with regard thereto, the Knowledge Partner shall be liable to pay penalty as may be decided by the



client subject to a maximum of 5% (five percent) of the contract sum calculated prorata for the Activity.

## 21. Preparation of Technical Proposal

Knowledge Partners are required to submit a Technical Proposal as specified below:

### (a) Technical Proposal

- i) Knowledge Partners are expected to provide the Technical Proposal as specified in the RFP document. Material deficiencies in providing the information requested, may result in rejection of a proposal.
- ii) The Technical Proposal shall contain the following documents, to be submitted in the standard formats given in Section 2 & 3 of this RFP document:

### (b) Letter of Technical Proposal Submission.

- i) The exact information on eligibility criteria as mentioned in para 22 with supporting documents. Supporting documents/certificates towards fulfilling eligibility criteria must be submitted, otherwise Financial Bids will not be opened.
- ii) Profile and track record of Knowledge Partners, including strength and credentials of the agency network (details of global network, number of employees, details of the specialist partners/affiliates/associates, in-house facilities).
- iii) Client will require inputs on a regular basis. The Knowledge Partners will enclose synopsis of his inputs managed by them along with sample related work.
- iv) Proposed vision for a three years period and details of the strategy for a three-year period, including any new and innovative ideas. A presentation will be made by shortlisted companies (post opening technical proposal) propounding the activities performed in the sector.
- v) Details of the team proposed to be dedicatedly deployed to work with client, with qualifications and experience of the team members.
- vi) Sample Knowledge Paper.
- vii) Photo copy of PAN Card.
- viii) An undertaking on the letterhead of the Knowledge Partner and signed by an authorized signatory, that the Knowledge Partner will undertake the assignment, in accordance with the Scope of Work detailed in the RFP document). The above undertaking submitted by the Agency would be binding on the Knowledge Partner.



## 23. Submission of Proposals

- i) The original proposal (Technical Proposal) shall be prepared in indelible ink. It shall contain no interlineations or overwriting, except as necessary to correct errors made by the firm itself. Any such corrections must be authenticated by the persons or person who sign(s) the proposals.
- ii) An authorized representative of the firm should authenticate all pages of the Technical Proposal.
- iii) The Technical Proposal should be placed in a sealed envelope and super scribed "Technical Proposal" for Appointment of Knowledge Partner.
- iv) The sealed envelope should be put into an outer envelope and sealed. The outer envelope shall be super-scribed "Consultancy Services for **Development of Online Intelligent Maintenance and monitoring System on Pilot Basis (Hajipur Division) in Vaishali District in the state of Bihar**" with the due date for submission. The Bottom Left corner of the outer cover should carry the full name, address, telephone nos, mobile numbers, e-mail ID etc. of the Knowledge Partner submitting the Proposal.
- v) The outer envelope containing the sealed Technical Proposal should be addressed to:

**The Engineer-in-Chief  
Rural Works Department  
5<sup>th</sup> Floor, Vishweshwaraiya Bhawan  
Patna - 800001  
E-mail:encrwdbihar@gmail.com**
- vi) The Proposal should be submitted on or before 1700 hrs. , **15/07/2021**.
- vii) No proposal will be accepted after the deadline for submission and in the event of any proposal being received after the closing time for submission of proposals, the same shall be returned un-opened.
- viii) The Contact Person appointed for this RFP: Sri Amrendra Kumar Sinha, CE-2 cum Nodal Officer (MR), RWD, Patna. Mobile No.-8986915038.

## 24. Opening of Proposals and Selection Process

- i) Technical Proposals received will be opened in the presence of authorized representatives of the Agency who have submitted proposals on a date /time to be specified by client on the website [www.rwdbihar.gov.in](http://www.rwdbihar.gov.in).
- ii) The Technical Proposals will, in the first instance, be examined by client to ascertain fulfillment of eligibility criteria and submission of required documents. Knowledge Partner that fulfill the eligibility criteria and have submitted all required documents in their Technical Proposal would be invited to make presentations on their Technical Proposal on a date specified by client. The presentation should be made by team members identified to work with Client.
- iii) The Technical Proposals, on which presentations will be made, will carry weightage of 100% and be evaluated by a Committee, on the basis of the Strategy presented for clients requirement. A presentation will be made by

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the Knowledge Partner propounding the concept (s, research work, overall strategy).

iv) Criteria for Technical Evaluation:

| Sl. No. | Criteria   | Requirement  | Marks Assigned |
|---------|--|--|----------------|
| 1.      | <b>Quality of Approach &amp; Methodology</b>                         | Adequacy and quality of the proposed methodology and work plan in responding to the Terms of Reference (TORs) with Power point Presentation by the Knowledge Partner | 40             |
| 2.      | <b>Involvement/Association with any institute of repute</b>          | Undertaking by any institute of repute in India in regards to technology support as per the requirements of the pilot project  | 30             |
| 3.      | <b>Key Experts' qualifications and competence for the Assignment</b> | As per Scope of Work   | 30             |
| Total   |  |  | 100            |

**Key Experts' qualifications and competence for the Assignment: 30**

| Position   | Designation and No. Of Key Expert      | Marks per Staff | Total Marks |
|--|--|-----------------|-------------|
| Position K1  | Principal Advisor (1 Nos.)             | 8               | 8           |
| Position K2  | Product Architect (1 Nos.)             | 6               | 6           |
| Position K3  | Technology Research Scientist (1 Nos.) | 4               | 4           |
| Position K4  | Practices Manager (1 Nos.)             | 6               | 6           |
| Position K5  | Research Scientist ((1 Nos.))          | 4               | 4           |
| Position K6  | Research Developer(1 Nos.)             | 2               | 2           |
| <b>Sub Criteria for qualification of Key Experts</b> |  |                 |             |
| General Qualification                                |  |                 | 50          |
| Adequacy for the project                             |  |                 | 30          |
| Employment with the Knowledge Partner                |  |                 | 20          |
| <b>Total</b>   |  |                 | <b>100</b>  |

- v) Knowledge Partner who secure 75% marks will be shortlisted based on the Technical Evaluation and Presentation.
- vi) The Technical Proposal (Tm) which secures the highest marks will be given a technical score (St) of 100 points. The technical scores (St) of the other Technical Proposals will be determined using the following formula:

$$St = 100 \times T/Tm;$$

## 25. Terms of Payment to the Knowledge Partner

- i) The payments will be made monthly for the fixed component and other work only after completion of the required work for the quarter and on submission of a statement of work having been executed as per the requirements detailed in the RFP Document, or communicated subsequently by client.
- ii) Taxes as applicable will be paid as per actuals.
- iii) For facilitating Electronic transfer for funds the selected Knowledge Partner will be required to indicate the name of the Bank and Branch, account number (i.e. bank names, IFSC Code and Bank A/c No.) and also forward a cheque leaf duly cancelled to verify the details furnished. These details should also be furnished on the body of every bill submitted for payments by the selected Knowledge Partner.

## 26. Other Important Information

- i) The Knowledge Partner will be responsible for obtaining any permission that may be required for undertaking work as detailed in this RFP Document. Client will assist the Knowledge Partner in this regard, wherever possible.
- ii) The Knowledge Partner will at no time resort to plagiarism. Client will not be a party to any dispute arising on account of plagiarism resorted to by the agency.
- iii) The RFP is valid from the date of announcement (01/07/2021) till last date of submission, 15/07/2021.
- iv) A formal contract will be signed up between the successful Knowledge Partner and Client.
- v) Client is however not bound to accept any tender or to assign any reason for non - acceptance. Client reserves its right to accept the tender either in full or in part thereof. Conditional, erroneous and incomplete Bids will be rejected outright.
- vi) Client reserves its right to summarily reject offer received from any agency on national security considerations, without any intimation to the bidder.
- vii) Client reserves the right to place an order for the full or part quantities under any items of work under scope of work and for a shorter duration.
- viii) The Knowledge Partner submitting proposals will not be permitted to alter or modify their bids at any time post submission to Client.
- ix) Client reserves its right not to accept bids from Knowledge Partner resorting to unethical practices or on whom investigation/enquiry proceedings has been initiated.

27. **Termination:** Either party can terminate the Contract at any time by giving 45 days written notice.



in which  $S_t$  is the technical score,  $T_m$  is the highest score secured by a Technical proposal, and  $T$  is the score of the Technical Proposal under consideration.

- vii) The minimum technical score required to qualify technical evaluation is **75 Points out of 100**. A proposal will be considered unsuitable and will be rejected at this stage if it fails to achieve the minimum technical score. The Client will notify Applicants who fail to score the minimum technical score about the same and return their Financial Proposals unopened after completing the selection process.
- viii) The Client will notify the Applicants who secure the minimum qualifying technical score, indicating the date and time set for opening the Financial Proposals. The notification may be sent by registered letter, facsimile, or electronic mail.
- ix) The Financial Proposals will be opened publicly in the presence of Applicants representatives who choose to attend. The name of the Applicants, their technical scores and the proposed prices will be read aloud and recorded when the Financial Proposals are opened.
- x) Prior to evaluation of the Financial Proposals, the Evaluation Committee will determine whether the Financial Proposals are complete in all respects, unqualified and unconditional, and submitted in accordance with the terms hereof.
- xi) The cost indicated in the Financial Proposal shall be deemed as final and reflecting the total cost of services and should be stated in INR only. Omissions, if any, in costing of any item shall not entitle the Applicant to be compensated and the liability to fulfil its obligations as per the Terms of Reference within the total quoted price shall be that of the Applicant. The evaluation shall exclude those taxes, duties, fees, levies and other charges imposed under the Applicable Law as applicable on foreign and domestic inputs. The lowest Financial Proposal ( $F_m$ ) will be given a financial score ( $S_f$ ) of 100 points. The financial scores ( $S_f$ ) of the other Financial Proposals will be determined using the following formula:

$$S_f = 100 \times F_m / F;$$

in which  $S_f$  is the financial score,  $F_m$  is the lowest Financial Proposal, and  $F$  is the Financial Proposal (in INR) under consideration. Proposals will be finally be ranked in accordance with their combined technical ( $S_t$ ) and financial ( $S_f$ ) scores:

$$S = S_t \times T_w + S_f \times F_w;$$

where  $S$  is the combined score, and  $T_w$  and  $F_w$  are weights assigned to Technical Proposal and Financial Proposal that will be 0.80:0.20.

- xii) The Applicant achieving the highest combined technical and financial score will be considered to be the successful Applicant and will be invited for contract signing (the – Successful Applicant).

