

Government of Bihar, Water Resources Department,
Office of The Director, Dam Safety Cell
3rd Floor, Block-B, Jal Sansadhan Bhawan, Anisabad, Patna-800002

Request for Expression of Interest
(Consulting Services-Firms Selection)

For

**Conducting reservoir survey including hydrographic survey, preparation of
DEM & AEC Curve, sedimentation study and estimation of revised design
flood for Kohira Reservoir**
E- Procurement

India
National Hydrology Project
Loan No. IBRD Loan 8725-IN

Ref No: BIHAR/WRD/Kohira Reservoir/NHP-SW/EOI/01/2020-21
Procurement plan No-NHP-2020-2021-BRSW-587880

1. This Invitation for Bid follows the General Procurement Notice for this Project that appeared in Development Business on 09/03/2017.
2. The Government of India has received financing from the World Bank toward the cost of the National Hydrology Project and intends to apply part of the proceeds for the consulting services.
3. Water Resources Department, Govt. of Bihar, which is the implementing agency for Bihar (Surface Water Component), is interested in **Conducting reservoir survey including hydrographic survey, preparation of DEM & AEC Curve, sedimentation study and estimation of revised design flood for Kohira reservoir** to estimate and study the sedimentation behavior of **Kohira reservoir**. The objective of the study to upgrade Elevation-Area-Capacity tables/curves of the reservoir at regular intervals to assess and review life expectancy of the reservoir, particularly in view of some apprehensions from certain quarters about the higher rate of sedimentation in reservoirs. On the basis of the study, planner can recommend suitable measures for increased benefits and enhanced life of reservoir, specific measures for Soil conservation, Catchment area treatment, watershed details etc. To create database for developing regional sediment indices and facilitate Rational Sedimentation Planning of future reservoirs. To prepare contour map of reservoir beds and estimation of revised design flood for the reservoir. The detailed topographic & hydrographic survey aims at 05 cm absolute and relative vertical accuracy for proper fitment into various proposed model studies on the reservoir.
4. **Scope of Consultancy:** The present consultancy package aims at addressing the challenging problem of creating a precise elevation model of **Kohira reservoir** and enclosing structures using modern survey techniques. The data received from this Consultancy would be used in sedimentation study of **Kohira reservoir** as well as for other flood management works. Conducting hydrographic and topographic survey to cover the entire area of the reservoir

up to maximum water Level for obtaining a fully representative bed profile of the reservoir. Analysis of data to obtain elevation-area-capacity table/curves, contour plots, balance life of reservoir, vertical sediment distribution curve/table, estimation of sedimentation in different zones of reservoir, Mathematical modeling studies etc. keeping in line with the objectives laid down for the study for obtaining a fully representative bed profile. The scope of this consultancy will cover to carry out Reservoir capacity Survey including Hydrographic Survey with preparation of DEM of resolution of 1 m with minimum accuracy 0.3 m for more realistic estimate of rate of siltation for updating the area elevation curve relationship to provide reliable criteria for studying the implication of annual loss of storage area over a definite period of time with particular reference to reduction of intended benefit in the form of irrigation potential and flood absorption. The hydraulic model developed with the rectified DEM prepared using the data obtained through reservoir survey. Data should be of such a quality that allows its future usage for flood forecasting during the monsoon season.

Broad Terms of Reference (ToR) is attached with this EoI.

5. The duration of the assignment is 18 (**Eighteen**) months.
6. Director, Dam Safety Cell, Water Resources Department, and Govt. of Bihar now invites eligible consultant to indicate their interest in providing the consultancy services for **Conducting reservoir survey including hydrographic survey, preparation of DEM & AEC Curve, sedimentation study and estimation of revised design flood for Kohira reservoir.**
7. Interested Consultants must provide information indicating that they are qualified to perform the services (brochures, description of similar assignments in similar conditions, availability of appropriate skills among staff etc.). Consultants may associate with other firms in the form of a joint venture or a sub-consultancy to enhance their qualifications. Number of partners in a JV shall be limited to two including the lead partner
8. The criteria for short listing of the Consulting firms shall be as follows:

i) The eligible consultants shall be a consultancy firm with minimum ten (10) years experience in providing consultancy services in the water sector, with particular emphasis and a track record of successfully delivering major analytical projects in the field of Hydrological modelling, Hydrographic Survey and Hydraulic modelling, Reservoir Sedimentation Studies, flood forecasting and flood inundation modelling.

ii) The firm shall have at least two (2) experiences during the last ten (10) years in field as mentioned above in point (i). Each similar work costing not less than Indian National Rupee (INR) 25 million (US\$ 0.38 million) or equivalent is required. **In case of the JV, firm shall have similar experience (as stated above) of providing minimum two similar completed consultancy services contracts each costing not less than Rs25 million (US\$ 0.38 million) or equivalent. The lead partner shall at least have completed one similar contract costing not less than Rs. 17.5 million (70 % of this criteria) and other partner shall at least have completed one similar contract costing not less than Rs. 10 million (40 % of this criteria) .**

(Documentary evidence indicating the value and acceptance/completion certification should be provided by the consultancy firms)

- iii. The firms shall be financially sound with an average annual turnover of more than INR 36 million during the previous five years(2014-2015, 2015-16, 2016-17, 2017-18 and 2018-19).(Audited financial statements should be provided by the bidder). In case of joint venture (JV) the minimum turn-over of lead partner should be INR 25 million.(70 % of the required turn over) whereas other member in Joint Venture minimum turn-over should be INR 14.5 million (40% of the required turn over) for a firm. This should be clearly stated in the submission.
- iv. Firm's Organization set-up, structure and availability of key professionals with the firm (Team Leader-Water Resources expert, Co-Team Leader-Bathymetric survey Expert, GIS Specialist, Database Specialist, Hydrologist, Environmental Expert, Meteorology Expert, Surveyors, Technical support staff etc.) along with qualification and experience i.e. Technical team and expertise available with the organization should be as per ToR.
- v. All Annexures attached should be duly filled up and signed.
- vi. **Undertaking towards correctness of information furnished with REOI**
9. The attention of interested Consultants is drawn to paragraph 1.9 of the World Bank's *Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers* January 2011 revised in July 2014 ("Consultant Guidelines"), setting forth the World Bank's policy on conflict of interest.
10. A consultant will be selected in accordance with the **QCBS (Quality And Cost Based Selection)** procedures set out in the World Bank's "*Guidelines: Selection and Employment of Consultants Under IBRD Loans and IDA Credits & Grants by World Bank Borrowers- Jan 2011, modified July 2014*". The Guidelines are available at www.worldbank.org/procure.
11. Interested Consultants may obtain further information at the address given below from 10.00 – 17.00 hours (IST) on all working days.

This notice for Expression of Interest has also been posted on websites-<http://fmis.bih.nic.in> and <http://wrd.bih.nic.in>

12. Expression of Interest with all relevant information and documents must be uploaded on <https://eprocure.gov.in> for "**Conducting reservoir survey including hydrographic survey, preparation of DEM & AEC Curve, sedimentation study and estimation of revised design flood for Kohira reservoir**" by not later than 06 October, 2020 time 15.00 hrs Server time. In the event, this last date being declared as holiday by the State Government, due date for submission of above EOI will be the next working day up till the same appointed time. **The Expression of Interests received till the appointed time and date shall be opened same day at 15.30 hrs Server time.** The electronic bidding system will not allow any late submission of the REOIs after due date and time as per server time. Physical, Email, Telex, cable or facsimile submission of REOIs will be rejected as non-responsive.

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Annexure-I

Expression of Interest Form for Consulting Engineering Firm or Joint Venture

(To be filled up by each of the constituent in case of a Joint Venture)

1.

Consultant	Date of Establishment	Country	Type of organization			
			Individual	Partnership	Corporation	Other
Name						

2. *Corporate/registered Office / Business Address / Telephone Nos. / Cable Address/ E-mail address of consultant and its branch offices for Consultant (including members in case of JV)*
3. *Consultant's former name and year of establishment (including that of members in case of JV)*
4. *Narrative description of Consultant firms if any (Use other sheet, if necessary)*

Financial Statement of the five financial Years

Sr. No.	Particulars		2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
1.	Annual turnover from Consulting business	Lead member					
		other member					
2	Net Profit.	Lead member					
		other member					

Notes:

- i. Values should be duly certified by statutory body like Chartered Accountant or Independent Auditors who are competent to do so as recognized by the Government of India.
- ii. The amount shall be stated in Indian Rupees (INR).
- iii. For the purpose of short listing, conversion to Indian Rupees shall be based average of the buying and selling rates of Reserve Bank of India as on the Proposal submission date.
- iv. In case the exchange rate for any currency is not available as per the provision of this section, then Water Resources Department, Government of Bihar reserves the right to use the rate available from an alternative source at its sole discretion.

Organizational Strength

1. Staff strength of the Organization/s

Sl No.	Area of Expertise	Total No. of Staff	No. with Doctoral Degree	No. with Post-graduate Degree	No. with Graduate Degree	No. of Permanent Employees	No. of years with the firm
i.							
ii.							
iii							
n							

Annexure-IV

Details of Experience

Sl. No	Projects Name / Year	Type of services rendered	Cost of the assignment	Client (With complete address, contact person, telephone No. Fax No and E mail address)	Fee in INR (Applicant's share in case of JV/ Consortium)	Completion certificate from client (whether attached)	Project Duration in months	Funding Agency	Sole / JV/ Consortium (if JV-state Lead /Partner with share)
1	2	3	4	8	9	10	11	12	13
1									
2									

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Note: Type of services rendered to be as follows

- A. Hydrological analysis and modeling,
- B. Reservoir Survey including Hydrographic Survey and Hydraulic modeling, Preparation of DEM & A.E.C curve,
- C. Flood forecasting and flood inundation modeling,
- D. Reservoir Sedimentation Study,
- E. Development of Estimation of revised design flood for reservoir.

Only those assignments shall be considered for which consultant has provided services as lead member in case that work is done by a JV/ Consortium. Each assignment shall be supported by a performance certificate comprising of the following details:

Name of Project :

Client's Name and Address :

Cost of assignment :

Description of assignment:

Description of Services provided by the firm:

Authorized Signatory of client

Undertaking

To,

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I certify that the information in the above Expression of Interest forms is true to the best of my knowledge. I also understand that any misleading or wrong information will disqualify this application straightaway.

President/Managing Director
or
Authorized Signatory