

# **Instructions to Bidders**

# **SECTION - A**

#### **1.** Scope of Works

#### Installation, collection and supply data from Gauge-Discharge Sites in Bagmati-Adhwara Basin.

The objective is to select locations and install stage/discharge gauge sites, collect stage/discharge data during the period at specified frequency, and supply such data at specified interval and at end-of-season for use in flood modeling.

The Non-Consulting Services will consist of the following:

- The objective is to select and install stage/discharge gauge sites, collect stage/discharge data during the consultancy period at specified frequency, and supply such data at specified interval and at end-of-season for use in flood modeling,
- Establish site including survey of cross-section at each site, establishing precise location and datum and description, and setting up graduated staff/s for manual observation or sensors with AWLRs/DWLRs. The most-cost-effective solution would be selected, and make necessary logistic arrangements to maintain the sites during 2016 flood season, and to measure/collect stage data, and
- Conduct discharge measurements through ADPCs or current meters, develop rating curve, observe stage data, convert stage data to discharge, and supply the stage-discharge data every week through the flood season, and the compilation for the whole season

The Flood Management Improvement Support Centre (FMISC), Water Resources Department, Govt. of Bihar, Patna (Employer) invites quotations for the non-consulting services as given in Terms of Reference attached.

The successful bidder will be expected to complete the assignment by the intended completion period as specified in the TOR.

- 2. **Qualification of the bidder**: The bidder shall provide qualification information which shall include:-
  - (a) Income tax clearance certificate from the concerned IT circle;
  - (b) Report on his financial standing; and
  - (c) Details of any litigation, current or during the last 3 years in which the bidder is involved, the parties concerned and disputed amount in each case.

#### 3. To qualify for award of the contract the bidder:-

(a) The bidder should have been in similar business since at least 5 years.

- (b) The bidder/firm shall be financially sound with an average annual turnover of more than INR 3,00,000 during the last five years (2010-11 to 2014-15),
- (c) The firms should have at least two similar experiences in designing, implementing and operationalizing hydrological network.

# 4. **Bid Price**

- a) The contract shall be for the whole works as described in the TOR. Corrections, if any, shall be made by crossing out, initialing, dating and re writing.
- b) All duties, taxes and other levies payable by the contractor under the contract shall be included in the total price.
- c) The rates quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
- d) The rates should be quoted in Indian Rupees only.

## 5. Submission of Quotations

- **5.1** The bidder is advised to visit the site of works at his own expense and obtain all information that may be necessary for preparing the quotation.
- **5.2** Each bidder shall submit only one quotation.
- 5.3 The quotation submitted by the bidder shall comprise the following:-
  - (a) Quotation in the format given in Section **B**.
  - (b) Signed Terms of reference; and
  - (c) Qualification information form given in Section B duly completed.

### 5.4 The bidder shall seal the quotation in an envelope addressed to the: Joint Director, Flood Management Improvement Support Centre, 2nd Floor, Jal Sansadhan Bhawan, Anisabad, Patna- 800002, Bihar, India. Telefax : +(91)612-2256999, E-mail: fmiscbihar@gmail.com

The envelope will also bear the following identification:-

- Quotation for <u>Installation, collection and supply data from Gauge-Discharge Sites in</u> <u>Bagmati-Adhwara Basin</u> (Name of the Contract)
- Do not open before **15:30 Hours (IST) on Wednesday, 08<sup>th</sup> June 2016** (time and date of quotation opening).

- **5.5** Quotations must be received in the office of the Joint Director, Flood Management Improvement Support Centre, 2nd Floor, Jal Sansadhan Bhawan, Anisabad, Patna-800002. Bihar, India not later than the time and date given in the letter of invitation. If the specified date is declared a holiday, quotations shall be received upto the appointed time on the next working day.
- **5.6** Any quotation received by the Joint Director, Flood Management Improvement Support Centre, 2nd Floor, Jal Sansadhan Bhawan, Anisabad, Patna- 800002. Bihar, India after the deadline for submission of quotations will be rejected and returned unopened to the bidder.

#### 6. Validity of Quotation

Quotation shall remain valid for a period not less than 45 days after the deadline date specified for submission.

#### 7. **Opening of Quotations**

Quotations will be opened in the presence of bidders or their representatives who choose to attend on the date and time and at the place specified in the letter of invitation.

8. Information relating to evaluation of quotations and recommendations for the award of contract shall not be disclosed to bidders or any other persons not officially concerned with the process until the award to the successful bidder is announced.

#### 9. Evaluation of Quotations

The Employer will evaluate and compare the quotations determined to be substantially responsive i.e. which

- (a) meet the qualification criteria specified in clause 3 above;
- (b) are properly signed ; and
- (c) conform to the Terms of Reference.

#### **10.** Award of contract

The Employer will award the contract to the bidder whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price and who meets the specified qualification criteria.

- **10.1** Notwithstanding the above, the Employer reserves the right to accept or reject any quotations and to cancel the bidding process and reject all quotations at any time prior to the award of contract.
- **10.2** The bidder whose bid is accepted will be notified of the award of contract by the Employer prior to expiration of the quotation validity period.

#### **11. Performance Security**

Within 15 days of receiving letter of acceptance, the successful bidder shall deliver to the Joint Director, Flood Management Improvement Support Centre, 2nd Floor, Jal Sansadhan Bhawan, Anisabad, Patna- 800002 (Employer) the performance security (either a bank guarantee or a bank draft in favour of the Director, Water and Land Management Institute, Patna for an amount equivalent of 3 % of the contract price. The Performance Security shall be valid till the expiry of the period of maintenance of the work, specified in clause 12.

## **12. Period of Maintenance**: (Not Applicable)

The "Period of Maintenance" for the work is six months from the date of taking over possession or one full monsoon season whichever occurs later. During the period of maintenance, the contractor will be responsible for rectifying any defects in construction free of cost to the Employer.

#### **13.** Fraud and Corruption

The Bank requires compliance with its policy in regard to corrupt and fraudulent practices as set forth in Annexure-3.

In further pursuance of this policy, Contractor shall permit and shall cause its agents, Experts, Sub-consultants, sub-contractors, services providers, or suppliers to permit the Bank 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 Bank.

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# **SECTION - B**

- 1. Format for Qualification Information.
- 2. Format for Submission of Quotation.
- **3.** Format of Letter of Acceptance.

# **QUALIFICATION INFORMATION**

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- **1** For Bidders
- 1.1 Name and Address of prime Bidder/Firm:
- 1.2 Principal place of business:
- 1.3 Power of attorney of signatory of Quotation.

[Attach copy]

# *1.4* Year of Incorporation:*1.5* Financial Turnover

- - (a) 2010-11: -----Million INR
  - (b) 2011-12: -----Million INR
  - (c) 2012-13: -----Million INR
    (d) 2013-14: -----Million INR
  - (e) 2014-15: -----Million INR
  - (f) Average Annual Turnover for above period of five years:
- **1.6** Work performed/similar experiences in designing, implementing and operationalizing hydrological network as prime contractor over the last five years.

<u>Project</u> <u>Name</u>	<u>Name of</u> Employer	<u>Descrip-</u> <u>tion of</u> <u>work</u>	<u>Contract</u> <u>No.</u>	<u>Value of</u> <u>contract</u> <u>(Rs.Lakhs)</u>	<u>Date of</u> <u>issue of</u> <u>work</u> order	<u>Stipulated</u> period of comple- tion	<u>Actual</u> <u>date of</u> <u>compl</u> <u>e-tion</u>	<u>Remarks</u> explaining <u>reasons</u> for delay and work completed
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Existing commitments and on-going works:

Description of Work	Place & State	Contract No. & Date	Value of Contract (Rs. Lakh)	Stipulated period of completion	Value of works* remaining to be completed (Rs. Lakhs)	Anticipated date of completion
(1)	(2)	(3)	(4)	(5)	(6)	(7)

\* Enclose a certificate from Engineer concerned.

Sections of the works	Value of Sub- contract	Sub-contractor (name & address)	Experience in similar work
*	*	*	*
	*	*	
*	*	*	*
	*	*	
*	*	*	*
	*	*	

**1.4** Proposed subcontracts and firms involved.

- **1.5** Evidence of access to financial resources to meet the requirements of working capital: cash in hand, lines of credit, etc. List them below and attach copies of support documents.
- **1.6** Name, address, and telephone, telex, and fax numbers of the Bidders' bankers who may provide references if contacted by the Employer.
- **1.7** Information on litigation history in which the Bidder is involved.

#### **QUOTATION**

\*

Description of the Non-Consulting Services: Installation, collection and supply data from Gauge-Discharge Sites in Bagmati-Adhwara Basin.

To:	Joint Director, Flood Management Improvement Support Centre, 2 <sup>nd</sup> Floor, Jal Sansadhan Bhawan, Anisabad, Patna- 800002, Bihar, India. Telefax : +(91)612-2256999, E-mail: <u>fmiscbihar@gmail.com</u>
Subject	: Quotation for Installation, collection and supply data from Gauge-Discharge Sites in Bagmati-Adhwara Basin.
Reference	: IFQ No. WRD/FMISC/SAWI/IFQ/ 01 /2016-17 dated 28 <sup>th</sup> May 2016
Sir,	
We offer to e	xecute the non-consulting services as described in your Invitation for Quotation

referred to above in accordance with the Conditions of Contract enclosed there with for a total Contract Price of -Rs.\*\* \_\_\_\_\_ [ in figures ]

Rs. \_\_\_\_\_ [ in words ].

This quotation and your written acceptance of it shall constitute a binding contract between us. We understand that you are not bound to accept the lowest or any quotation you receive.

We hereby confirm that this quotation is valid for 45 days as required in Clause 6 of the Instructions to Bidders.

Yours faithfully,

Authorized Signature	:	Date:
Name & Title of Signatory Name of Bidder	:	
Address	•	

\* To be filled in by the Employer before issue of the Letter of Invitation.

\*\* To be filled in by the Bidder, together with his particulars and date of submission at the bottom of this Form.

## LETTER OF ACCEPTANCE CUM NOTICE TO PROCEED WITH THE NON-CONSULTING SERVICES

#### (LETTERHEAD OF THE EMPLOYER)

Dated : \_\_\_\_\_

To: [Name and address of the Contractor]

Dear Sirs,

This is to notify you that your Quotation dated \_\_\_\_\_\_ for execution of the Installation, collection and supply data from Gauge-Discharge Sites in Bagmati-Adhwara Basin for the contract price of Rupees [amount in words and figures], is hereby

accepted by us.

You are hereby requested to furnish performance security for an amount of Rs. \_\_\_\_\_ (equivalent to 3% of the contract price) within 15 days of the receipt of the letter. The Performance Security in the form of Bank guarantee or a Bank draft in favour of Director, Water and Land Management Institute, Patna shall be valid till the expiry of the period of maintenance i.e. upto \_\_\_\_\_. Failure to furnish the Performance Security will entail cancellation of the award of contract.

You are also requested to sign the agreement form and proceed with the work not later \_\_\_\_\_ under the instructions of the Engineer, than and ensure its completion within the contract period.

With the issuance of this acceptance letter and your furnishing the Performance Security, contract for the above said work stands concluded.

Yours faithfully,

Joint Director, Flood Management Improvement Support Centre, 2<sup>nd</sup> Floor, Jal Sansadhan Bhawan, Anisabad, Patna

#### **Authorized Signature** Name and title of Signatory

# Draft Agreement form for Non-Consulting Services through Shopping

# **ARTICLES OF AGREEMENT**

This deed of agreement is made in the form of agreement on \_\_\_\_\_ day \_\_\_\_\_ month \_\_\_\_\_ 20 \_\_\_\_, between the \_\_\_\_\_ (Employer) or his authorized representative (hereinafter referred to as the first party) and \_\_\_\_\_\_ (Name of the Contractor), S/O \_\_\_\_\_ resident of \_\_\_\_\_ (hereinafter referred to as the second party), to execute the work of construction of \_\_\_\_\_\_ (hereinafter referred to as the second party), to execute the work of construction of \_\_\_\_\_\_ (hereinafter referred to as the following terms and conditions.

#### 2. Cost of the Contract

The total cost of the works (hereinafter referred to as the "total cost") is Rs. \_\_\_\_\_ as reflected in Annexure - 1.

#### **3.1** Payments under its contract:

Payments to the second party for the construction work will be released by the first party in the following manner:-

Mobilization Advance against Bank Guarantee	:	10% (Ten percent) of total cost		
Acceptance of Methodology and work schedule and	:	10% (Ten percent) of total cost		
measurement protocol document				
Acceptance of Report on establishment of sites		20% (Twenty percent) of the total cost		
Receipt of hydrologic data for first two months and	:	30% (Thirty percent) of the total cost		
certification by FMISC, WRD, Patna				
Acceptance of Final Report	:	30% (Thirty percent) of the total cost		
Note: Validity period of Bank Guarantee will be valid up till one month after final payment on acceptance				
and approval of Final Report.				

- **3.2** Payments at each stage will be made by the first party:
  - (a) on the second party submitting an invoice for an equivalent amount ;
  - (b) on certification of the invoice (except for the first installment) by the engineer nominated by the first party with respect to quality of services as per terms of Reference in the format in Annexure 2; and

#### 4. Notice by Contractor to Engineer

The second party, on the works reaching each stage of work, issue a notice to the first party or the Engineer nominated by the first party (who is responsible for supervising

the contractor, administering the contract, certifying the payments due to the contractor, issuing and valuing variations to the contract, awarding extensions of time etc.), to visit the site for certification of stage completion. Within 15 days of the receipt of such notice, the first party or the engineer nominated by it, will ensure issue of stage completion certificate after due verification.

#### 5. Completion time

The works should be completed in Six Months from the date of this Agreement. In exceptional circumstances, the time period stated in this clause may be extended in writing by mutual consent of both the parties.

- 6. If any of the compensation events mentioned below would prevent the work being completed by the intended completion date, the first party will decide on the intended completion date being extended by a suitable period:
  - a) The first party does not give access to the site or a part thereof by the agreed period.
  - b) The first party orders a delay or does not issue completed drawings, specifications or instructions for execution of the work on time.
  - c) Ground conditions are substantially more adverse than could reasonably have been assumed before issue of letter of acceptance and from information provided to second party or from visual inspection of the site.
  - d) Payments due to the second party are delayed without reason.
  - e) Certification for stage completion of the work is delayed unreasonably.
- 7. Any willful delay on the part of the second party in completing the construction within the stipulated period will render him liable to pay liquidated damages. @ Rs. 0.05% per day which will be deducted from payments due to him. The first party may cancel the contract and take recourse to such other action as deemed appropriate once the total amount of liquidated damages exceeds 2 % of the contract amount.

## 8. Duties and responsibilities of the first party

- **8.1** The first party shall be responsible for providing regular and frequent supervision and guidance to the second party for carrying out the works as per specifications. This will include written guidelines and regular site visit of the authorized personnel of the first party, for checking quality of material and construction to ensure that it is as per the norms.
- **8.2** The first party shall supply 3 sets of drawings, specifications and guidelines to the second party for the proposed works.

- **8.3** Possession of the site will be handed over to the second party within 10 days of signing of the agreement.
- **8.4** The Engineer or such other person as may be authorized by the first party shall hold meeting once in a month where the second party or his representative at site will submit the latest information including progress report and difficulties if any, in the execution of the work. The whole team may jointly inspect the site on a particular day to take stock of activities.
- **8.5** The Engineer shall record his observations/instructions at the time of his site visit in a site register maintained by the second party. The second party will carry out the instructions and promptly rectify any deviations pointed out by the engineer. If the deviations are not rectified, within the time specified in the Engineer's notice, the first party as well as the engineer nominated by it, may instruct stoppage or suspension of the construction. It shall thereupon be open to the first party or the engineer to have the deviations rectified at the cost of the second party.

#### 9. Duties and responsibilities of the second party

- **9.1** The second party shall:
  - a) take up the works and arrange for its completion within the time period stipulated in clause 5;
  - b) employ suitable skilled persons to carry out the works ;
  - c) regularly supervise and monitor the progress of work ;
  - d) abide by the technical suggestions / direction of supervisory personnel including engineers etc. regarding building construction ;
  - e) be responsible for bringing any discrepancy to the notice of the representative of the first party and seek necessary clarification :
  - f) ensure that the work is carried out in accordance with specifications, drawings and within the total of the contract amount without any cost escalation ;
  - g) keep the first party informed about the progress of work ;
  - h) be responsible for all security and watch and ward arrangements at site till handing over of the building to the first party ; and
  - i) maintain necessary insurance against loss of materials/cash, etc. or workman disability compensation claims of the personnel deployed on the works as well as third party claims.
  - f) Pay all duties, taxes and other levies payable by construction agencies as per law under the contract (First party will effect deduction from running bills in respect of such taxes as may be imposed under the law).

## **10.** Variations / Extra Items

The works shall be carried out by the second party in accordance with the approved drawings and specifications. However, if, on account of site conditions or any other factors, variations are considered necessary, the following procedure shall be followed:-

- a) The second party shall provide the Engineer with a quotation for carrying out the Variation when requested to do so by the Engineer. The Engineer shall assess the quotation, which shall be given within seven days of the request before the Variation is ordered.
- **b)** If the quotation given by the second party is unreasonable, the Engineer may order the Variation and make a change to the Contract Price which shall be based on Engineer's own forecast of the effects of the Variation on the Contractor's costs.
- c) The second party shall not be entitled to additional payment for costs which could have been avoided by giving early warning.

## 11. Securities

The Performance Security shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount and form and by a bank or surety acceptable to the Employer. The Performance Security shall be valid until a date 28 days from the date of issue of the Certificate of Completion in the case of a Bank Guarantee.

## 12. Termination

- 12.1 The Employer may terminate the Contract if the other party causes a fundamental breach of the Contract.
- 12.2 Fundamental breaches of Contract include, but shall not be limited to the following:
  - (a) the contractor stops work for 28 days and the stoppage has not been authorized by the Engineer;
  - (b) the Contractor has become bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
  - (c) the Engineer gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Engineer;
  - (d) the Contractor does not maintain a security which is required;
- 12.3 Notwithstanding the above, the Employer may terminate the Contract for convenience.

12.4 If the Contract is terminated the Contractor shall stop work immediately, make the Site safe and secure and leave the Site as soon as reasonably possible.

## 13. **Payment upon Termination**

- 13.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Engineer shall issue a certificate for the value of the work done less advance payments received up to the date of the issue of the certificate, less other recoveries due in terms of the contract, less taxes due to be deducted at source as per applicable law.
- 13.2 If the Contract is terminated at the Employer's convenience, the Engineer shall issue a certificate for the value of the work done, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works and less advance payments received up to the date of the certificate, less other recoveries due in terms of the contract and less taxes due to be deducted at source as per applicable law.

#### 14. Dispute settlement

If over the works, any dispute arises between the two parties, relating to any aspects of this Agreement, the parties shall first attempt to settle the dispute through mutual and amicable consultation.

In the event of agreement not being reached, the matter will be referred for arbitration by a Sole Arbitrator not below the level of retired Superintending Engineer, PWD to be appointed by the first party. The Arbitration will be conducted in accordance with the Arbitration and Conciliation Act, 1996. The decision of the Arbitrator shall be final and binding on both the parties.

#### **15.** Fraud and Corruption :

It is the Bank's policy to require that Borrowers (including beneficiaries of Bank loans), contractors, and their agents (whether declared or not), sub-contractors, sub-consultants, service providers, or suppliers, and any personnel thereof, observe the highest standard of ethics during the selection and execution of Bank-financed contracts [footnote: In this context, any action taken by a consultant or any of its personnel, or its agents, or its sub-consultants, sub-contractors, services providers, suppliers, and/or their employees, to influence the selection process or contract execution for undue advantage is improper.]. The Contract would be subject to Fraud and Corruption as attached in Annexure-3.

#### 16 Right to Audit

The Contractor shall keep, and shall make all reasonable efforts to cause its Subcontractors to keep, accurate and systematic accounts and records in respect of the Works in such form and detail as will clearly identify relevant time changes and costs. The Contractor shall permit and shall cause its Sub-contractors to permit, the Bank and/or persons appointed by the Bank to inspect the Site and/or all accounts and records relating to the performance of the Contract and the submission of the Bid, and to have such accounts and records audited by auditors appointed by the Bank if requested by the Bank. The Contractor's attention is drawn to Clause 13 which provides, inter alia, that acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under this Clause 14 constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility under the Bank's prevailing sanctions procedures.)

# **TERMS OF REFERENCE**

1. Bihar is India's most flood-prone State, with 76 per cent of the population in the north living under the recurring threat of flood devastation. Recurrent floods are devastating to Bihar's economy and undermine poverty alleviation efforts. There is a need to develop a longterm flood management strategy for Bihar based on analysis and stakeholder inputs that builds upon the wisdom of the substantial documentation that currently exists on the problem. The Flood Management Improvement Support (FMIS) Centre developed under two previous DFID-financed grants, aims to generate and disseminate timely and customized information to move from disaster response to improved disaster preparedness and to effectively support flood control and management in the flood-prone areas of the State. The FMIS Centre .under a previous consultancy has developed a flood forecasting model (using a proprietary software) and inundation mapping tools from Dheng Bridge to Hayaghat for the B-A basin. It is now proposed to update and consolidate this model, and extend to Dumri (confluence of Bagmati with Kosi) to cover the entire basin. It is also proposed to develop a model with Public Domain / License free Software to compare, and if appropriate, enable scaling up to other basins in the State. Both modelling consultancies are constrained by inadequate stage/discharge measurements downstream of Hayaghat to Dumri (confluence point with Kosi River). A Real-Time Data Acquisition System (RTDAS) of automatic rain gauges and river gauges with real-time telemetry is planned to augment data availability in the basin, but may be realized only later. This consultancy addresses the installation and operation of stage/discharge sites below Hayaghat, and collection and supply of discharge data during the flood season of 2016 to further the flood modelling activity.

# 2. OBJECTIVES

The objective is to select and install stage/discharge gauge sites, collect stage/discharge data during the consultancy period at specified frequency, and supply such data at specified interval and at end-of-season for use in flood modeling.

# 3. SCOPE

The flood forecast modeling and inundation mapping would cover the entire B-A basin. To extend modeling below Hayaghat, stage /discharge sites would be selected and established in the main stem and the three important tributaries (Western Channel, Kamala-Balan, and Kosi offshoot channel) and other sites as agreed with WRD, and collect hydrometry data and supply to FMIS Centre. The establishment of site would include survey of river cross-section at each site, establishing precise location and Bench Mark (MUSTO Type) and description, and setting up graduated gauge staff/s for manual observation or sensors with AWLRs/DWLRs. The consultant would make necessary logistic arrangements to maintain the sites during one flood season, position observers to measure/collect stage data, make discharge measurements through ADCPs or current meters, develop rating curve, convert stage data to discharge, and supply the data every week. The specifications for water level and discharge measurements shall follow Hydrology Project norms implemented by Ministry of Water Resources and may be revised as needed based on agreement with WRD.

## 4. Tasks and Deliverables

#### Task 1

Select sites below Hayaghat in main stem and tributaries to measure river water level/discharge data during a flood season 2016 (15-June to 15-Oct) consistent with modeling requirement, and conduct field visits to finalize the sites.

#### <u>Output</u>

Inception Report covering Task 1 findings and proposed site details including location map, establishment, data collection and reporting arrangements.

#### Task 2 (by month 1)

2.1 Establish site including establishing precise location with Latitude & Longitude, Bench Mark (MUSTO Type) and description, and setting up graduated gauge staff/s for manual observation or sensors with AWLRs/DWLRs. The most-cost-effective solution would be selected. This will also include Bank to Bank cross-sectional survey across the river at 100 m up-stream, centre line of the site and 100 m down-stream of the centre line both pre-monsoon and post monsoon. The cross-section point should be located to enable at least 15 points across the river ensuring that no abrupt change in profile is missed.

2.2 Make necessary logistic arrangements to maintain the sites during one flood season, and to measure/collect stage data

#### <u>Outputs</u>

Report on establishment of sites, measurement protocols including setting-up rating curve, and logistic arrangements by month 1. Bank to bank River cross-section both pre-monsoon, post-monsoon at up-stream line, centre line and down-stream line.

#### Task 3 (during flood season 2016: 15-June to 15-Oct)

Conduct discharge measurements through ADCPs or current meters, develop rating curve, observe stage data, and convert stage data to discharge, and supply the stage and discharge data every week.

#### <u>Outputs</u>

Weekly report on measured data in Excel format till end of flood season Final report on data collection

#### 5. Reporting and Review

All reports should be submitted in hardcopy (10 copies) and soft copy (5) of each report in word format in DVD/CD media.

The following reports will be reviewed and approved within 2 weeks after submission, by a Standing Review Committee constituted by WRD.

- 1. Inception Report.
- 2. Report on establishment of sites, measurement protocols including setting up of rating curve for each site, bank to bank cross-section of sites and logistic arrangements.
- 3. Final report on data collection

#### Reporting Schedule

- Inception Report will be submitted within two weeks after effective contract
- Report on establishment of sites and measurement protocols including setting up of rating curve for each site, bank to bank cross-section of each site and logistic arrangements within one month.
- Final report on data collection by end of flood season

#### **Standing Review Committee**

SL No. Designation Position in Standing Review
--

		Committee
1	Chief Engineer, Planning & Monitoring, Patna	Chairman
2	Chief Engineer Muzaffarpur / Samastipur	Member
3	Superintending Engineer, Monitoring Circle -1, Patna	Member
4	Superintending Engineer, Flood Monitoring Circle, Patna	Member
5	Joint Director, FMISC, WRD, Patna	Member
6	Deputy Director-1, FMISC, WRD, Patna	Member Secretary
7	Executive Engineer, Flood Control & Monitoring	Member
	Division-1, Patna	
8	E-in-C (Retd.), WRD, GOB,	Member
9	Director (Retd.), GFCC	Member
10	Chief Engineer (Retd.), WRD, GOB	Member

Note:- The above review committee is expected to be reorganized which will be communicated in time.

#### 6. DATA, SERVICES AND FACILITIES TO BE PROVIDED BY THE CLIENT

- Information on current hydrologic network and additional needs
- Facilitate access to State WRD offices in the basin for network implementation and data collection

#### 7. RESPONSIBILITIES OF THE CONSULTANT

- Establish hydrologic network, and collect river water level and discharge data as per agreed protocol and supply data
- Conduct field visits as required for site selection and arranging logistics
- Hand over the gauge/discharge site along with all ground fixtures to WRD, Bihar for data collection in the forthcoming flood seasons.

#### 8. KEY STAFF

The key staff to be provided by the consultant are shown below. However, the consultants are free to propose their own team composition suitable for the project duration of the consultancy for development of flood model.

Discipline of the Consultant	Qualification and Experience	Suggested Man-Months
Project Team Leader	Basic degree in Hydrology, Hydraulic and / or Water Resources (or allied field) engineering,; experience in	6
	network design, establishment and data collection	
	-10 years working experience in flood / water resources modeling / GIS use for	
	modeling. -Extensive knowledge of hydrological	
	and hydrodynamic modeling tools used in flood forecasting	

Observers for data collection and site maintenance and data entry operators for data entry in Excel form may be deployed as per need.

#### 9. Financial Proposal

The bidder would quote cost of setting up, operating, and data collection for one station, which will be used for calculating the overall cost for seven tentative sites. However the number of stations may change based on network design in inception report with the approval of the Employer.

**10. Duration of non-consulting services:** 

Six months after effective date of contract which will be signing of contract.

Gross Total Cost : Rs. .....

We agree to execute the works in accordance with above Terms of Reference with total price of Rs. .....(amount in figures ) (Rs. ..... amount in words) including the Government Taxes.

**Signature of Contractor** 

# Format of certificate

Certified that the services up to ------- level in respect of Installation, collection and supply data from Gauge-Discharge Sites in Bagmati-Adhwara Basin have been executed in accordance with the approved Terms of Reference.

Signature Name & Designation (Official address)

Place : Date :

Office seal

NR/ls Wednesday, August 08, 2001 m:\pdat\sbd\works\doc\w-5.doc

# Bank's Policy – Corrupt and Fraudulent Practices

# Guidelines for Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers, dated January 2011:

#### **"Fraud and Corruption**

1.23 It is the Bank's policy to require that Borrowers (including beneficiaries of Bank loans), consultants, and their agents (whether declared or not), sub-contractors, sub-consultants, service providers, or suppliers, and any personnel thereof, observe the highest standard of ethics during the selection and execution of Bank-financed contracts [footnote: In this context, any action taken by a consultant or any of its personnel, or its agents, or its sub-consultants, sub-contractors, services providers, suppliers, and/or their employees, to influence the selection process or contract execution for undue advantage is improper.]. In pursuance of this policy, the Bank:

- (a) defines, for the purposes of this provision, the terms set forth below as follows:
  - (i) "corrupt practice" is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party<sup>1</sup>;
  - (ii) "fraudulent practice" is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation<sup>2</sup>;
  - (iii) "collusive practices" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party<sup>3</sup>;
  - (iv) "coercive practices" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party<sup>4</sup>;
  - (v) "obstructive practice" is
    - (aa) deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede

<sup>&</sup>lt;sup>1</sup> For the purpose of this sub-paragraph, "another party" refers to a public official acting in relation to the selection process or contract execution. In this context "public official" includes World Bank staff and employees of other organizations taking or reviewing selection decisions.

 $<sup>^{2}</sup>$  For the purpose of this sub-paragraph, "party" refers to a public official; the terms "benefit" and "obligation" relate to the selection process or contract execution; and the "act or omission" is intended to influence the selection process or contract execution.

<sup>&</sup>lt;sup>3</sup> For the purpose of this sub-paragraph, "parties" refers to participants in the procurement or selection process (including public officials) attempting either themselves, or through another person or entity not participating in the procurement or selection process, to simulate competition or to establish prices at artificial, non-competitive levels, or are privy to each other's bid prices or other conditions.

<sup>&</sup>lt;sup>4</sup> For the purpose of this sub-paragraph, "party" refers to a participant in the selection process or contract execution.

a Bank investigation into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation, or

- (bb) acts intended to materially impede the exercise of the Bank's inspection and audit rights;
- (b) will reject a proposal for award if it determines that the consultant recommended for award or any of its personnel, or its agents, or its sub-consultants, sub-contractors, services providers, suppliers, and/or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;
- (c) will declare misprocurement and cancel the portion of the Loan allocated to a contract if it determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the Loan were engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the selection process or the implementation of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner they knew of the practices;
- (d) will sanction a firm or an individual at any time, in accordance with prevailing Bank's sanctions procedures<sup>5</sup>, including by publicly declaring such firm or an ineligible, either indefinitely or for a stated period of time: (i) to be awarded a Bank-financed contract, and (ii) to be a nominated<sup>6</sup> sub-consultant, supplier, or service provider of an otherwise eligible firm being awarded a Bank-financed contract.

<sup>&</sup>lt;sup>5</sup> A firm or an individual may be declared ineligible to be awarded a Bank-financed contract upon (i) completion of the Bank's sanctions proceedings as per its sanctions procedures, including inter alia: cross-debarment as agreed with other International Financial Institutions, including Multilateral Development Banks, and through the application of the World Bank Group corporate administrative procurement sanctions procedures for fraud and corruption; and (ii) as a result of temporary suspension or early temporary suspension in connection with an ongoing sanctions proceedings. See footnote 12 and paragraph 8 of Appendix 1 of these Guidelines.

<sup>&</sup>lt;sup>6</sup> A nominated sub-consultant, supplier, or service provider is one which has been either (i) included by the consultant in its proposal because it brings specific and critical experience and know-how that are accounted for in the technical evaluation of the consultant's proposal for the particular services; or (ii) appointed by the Borrower.