



"TENDER DOCUMENT"

**FOR ENGAGEMENT OF CONSULTANCY SERVICES
FOR PREPARATION OF TECHNICAL ECONOMIC
FEASIBILITY REPORT FOR DEVELOPMENT OF
SUNDERBANS INLAND WATERWAYS**

Inland Waterways Authority of India

(Ministry of Shipping, Road Transport & Highways, Govt. of India)

Head Office: A-13, Sector-1, Noida-201301 (U.P.)

Tel: 0120-2521744 Faxes 0120 - 2544009/2543973

E-mail: hc.iwai@nic.in, ahsnoida@gmail.com,

Web site: www.iwai.nic.in/ www.iwai.gov.in, <http://eprocure.gov.in/eprocure/app>

MARCH 2016

Tender No. IWAI/PR/SUNDERBANS/2016/1

INDEX

S.N.	Content	Page no	
		From	To
	TECHNICAL BID : PART-I	3	
1.0	Notice Inviting Tender	4	6
2.0	Form of Tender	7	8
3.0	Information and instructions for bidders	9	24
4.0	Instructions to the Consultants/Bidders for e-submission of the bids	25	26
5.0	General Conditions of Contract	27	57
6.0	Terms of Reference (TOR)	58	73
7.0	Tender Acceptance letter	74	
8.0	Format for submission of Firms Credentials	75	76
9.0	Format for submission of Technical bid	77	82
10.0	Details of Bank Account for Release of Payment through Electronic Fund Transfer System	83	
PRICE BID: PART – II		84	
11.0	Schedule of Quantities (BOQ1)	85	
12.0	Integrity agreement	86	90
13.0	Agreement Format	91	92
14.0	Bank Guarantee Proforma for furnishing Performance guarantee)	93	94
	APPENDIX-I(A)/I(B)/I(C)/I(D)/I(E)	95	107
Annexure-I	Sample Form for Site Orders Book	108	
Annexure-II	Proforma For Hindrance Register	109	
Annexure-III	Notice for appointment of Arbitrator	110	111
	i) Traffic Template: at Annex-IV ii) Project Costing Template: at Annex-V iii) Financial Evaluation Template: at Annex-VI iv) Economic Evaluation Template: at Annex-VII v) Environmental & Social Screening Template: at Annex-VIII	112	117

TOTAL 117 (One hundred & seventeen) PAGES

PART – I TECHNICAL BID

**FOR ENGAGEMENT OF CONSULTANCY SERVICES
FOR PREPARATION OF TECHNICAL ECONOMIC
FEASIBILITY REPORT FOR DEVELOPMENT OF
SUNDERBANS INLAND WATERWAYS**



INLAND WATERWAYS AUTHORITY OF INDIA

(Ministry of Shipping, Road Transport and Highways, Govt. of India)

A-13, Sector-1, NOIDA- 201 301, U.P.

Phone No.- 0120-2544036, 2521684, 2522798, 2521724; TeleFax No.- 0120-2544009, 2544041
Email:-hc.iwai@nic.in, Web Site:-www.iwai.gov.in, <https://eprocure.gov.in/eprocure/app>

1. NOTICE INVITING TENDER No. IWAI/PR/SUNDERBANS/2016/1

Inland Waterways Authority of India (IWAI) invites online tenders/ bids in two envelope system (Envelope I - Technical bid and Envelope II - Financial Bid) from experienced and reputed agencies of India and abroad for engagement of "Consultancy Services for Preparation of technical, economic & financial feasibility report for proposed Sunderbans Inland Waterways, hereinafter referred to as the "Project"). The Bids will be placed online at <https://eprocure.gov.in/eprocure/app>.

1. **Name of Work: Consultancy services for preparation of technical economic feasibility report for Sunderbans Inland Waterways**
2. **Estimated Cost of the work and EMD requirement are as under:**

Sr No.	RIVERS	EMD (Rupees)	Estimated Cost Indian Rupees
1	Sunderbans	Rs. 90,000	Rs. 45,00,000/-

TERMS & CONDITIONS:-

3. Downloading of tenders: From 04.03.2016 to 04.04.2016.
4. Proposed date for pre-bid conference: 14.03.2016 at 1200 hours at IWAI, A-13, Sector-1, Noida-201301.
5. Last date of submission of tender : 04.04.2016 up to 1500 hours
6. Date of opening of bids of the tender: 04.04.2016 at 1530 hours.
7. The tender document can be downloaded from the IWAI's website www.iwai.nic.in and CPP Portal Website <https://eprocure.gov.in/eprocure/app>. Bidders submitting the downloaded version of tender document are required to submit Rs. 1,000/- (Rupees One thousand only), i.e., an amount equal to the cost of tender document. Cost of tender document is required to be submitted through RTGS/NEFT to the account "IWAI Fund (Security Deposits) - A/c No. 513202050000007, IFS Code: UBIN0551325, MICR Code: 110026055 at Union Bank of India, Sector-15, Naya Bans, NOIDA-201301." A signed declaration stating that no alteration has been made in any form in the downloaded tender document is to be enclosed with the tender by the bidder for downloaded tenders.

8. The Consultant will be selected under Quality cum Cost Based Selection (QCBS) and procedures described in this tender document.
9. IWAI reserves the right to accept or reject any or all tenders without assigning any reason and no correspondence shall be entertained in this regard.
10. The complete bid as per the tender documents should be placed online at <https://eprocure.gov.in/eprocure/app> by 1500 hours on 04.04.2016 and will be opened online on 04.04.2016 at 1530 hours at IWAI, A-13, Sector-1, and Noida-201301.

For further details please contact IWAI office or visit website at www.iwai.nic.in & <https://eprocure.gov.in/eprocure/app>.

Hydrographic Chief

NIT PUBLISHED IN THE NEWSPAPERS



**INLAND WATERWAYS AUTHORITY OF INDIA
A-13, Sector-1, Noida - 201 301**

NOTICE INVITING E-TENDER
Tender No. IWAI/PR/SUNDERBANS/2016/1

Inland Waterways Authority of India (IWAI) invites online bids from experienced and reputed Consultants of India and abroad for Consultancy Services for preparation of technical economic feasibility report for proposed development of Sunderbans Inland Waterways

Tender document cost: 1000/-. Date of downloading of tenders is from 04.03.2016 to 04.04.2016. Date for pre-bid meeting: 14.03.2016 at 1200 hrs. Last date of online submission of bids is up to 1500 hrs. on 04.04.2016. The online bids would be opened on 04.04.2016 at 1530 hrs.

For further details including EMD and other terms & conditions, please refer to IWAI website i.e. www.iwai.nic.in and <https://eprocure.gov.in/eprocure/app>

Hydrographic Chief

2.0 FORM OF TENDER

To

The Hydrographic Chief
INLAND WATERWAYS AUTHORITY OF INDIA,
A-13, Sector-1, NOIDA– 201 301, U.P.

Sub: Tender document for engagement of Consultancy Services for Preparation of technical economic feasibility report for proposed development of Sunderbans Inland Waterways

Sir,

1. Having examined the information and instructions for submission of tender, general conditions of contract, Special Condition of contracts, Technical, General and Detailed specification, Schedules and Bill of Quantities, agreement and bank guarantee forms, etc for the above named works, I/ We hereby tender for execution of the works referred to in the tender document in conformity with the said Conditions of Contract, Specifications, Schedule of quantities for the sum as stated in Bill of quantities of this tender document or such other sum as may be ascertained in accordance with the said conditions of contract.
2. I/ We undertake to complete and deliver the whole of the works comprised in the Contract within the time as stated in the tender and also in accordance in all respects with the specifications, Scope of work and instructions as mentioned in the tender document.
3. I/We are tendering for the works mentioned in the table below and submitting the EMD for the following description of work as per the details given therein:

Sl. No	Description of Work	RTGS/NEFT DETAILS	EMD (Rs.)	Details of Bank (Name of Bank, Branch and address)
1	Consultancy Services for Preparation of technical economic feasibility report for proposed development of Sunderbans Inland Waterways			

4. I/ We agree to abide by this tender. I/ We agree to keep the tender open for a period of 90 days from the date of opening of price bids or extension thereto as required by the IWAI and not to make any modifications in its terms and conditions.
5. I/ We agree, if I/ we fail to keep the validity of the tender open as aforesaid or I/ we make any modifications in the terms and conditions of my/ our tender if I/ We fail to commence the execution of the works as above, I/ We shall become liable for forfeiture of my/ our Earnest money, as aforesaid and IWAI shall without any prejudice to another right or remedy, be at the liberty to forfeit the said Earnest Money absolutely otherwise the said earnest money shall be retained by IWAI towards part of security deposit to execute all the works referred to in the tender document upon the terms and conditions contained or referred to therein and to carry out

such deviations as may be ordered. Should this tender be accepted, I/ We agree(s) to abide by and fulfil all the terms and conditions and provisions of this tender. No interest is payable on earnest money deposit and/ or security deposit.

6. I/ We have independently considered the amount of Liquidated Damages shown in the tender hereto and agree that it represents a fair estimate of the loss likely to be suffered by IWAI in the event of works not being completed in time.

7. If this tender is accepted, I/ We undertake to enter into execute at my/ our cost when called upon by the employer to do so, a contract agreement in the prescribed form. Unless and until a formal Agreement is prepared and executed this tender together with your written acceptance thereto shall constitute a binding contract.

8. If my/ our tender is accepted, I/We am/are to be jointly and severally responsible for the due performance of the Contract. **I/We also declare that the firm has not been banned or blacklisted by any Govt. or its department or any Quasi Govt. agency or Public Sector Undertaking or Multilateral or International Aid Agency/Development Bank.**

9. I/ We understand that you are not bound to accept the lowest or any tender you may receive and may reject all or any tender without assigning any reason.

10. I/ We certify that the tender submitted by me, us is strictly in accordance with the terms, conditions, specifications etc. as contained in the tender document, and it is further certified that it does not contain any deviation to the aforesaid documents.

Date

Signature

Name

Designation

duly authorized to sign & submit tender for an on behalf of

(Name and address of firm)

M/S

Telephone nos..... FAX No.....

3.0 INLAND WATERWAYS AUTHORITY OF INDIA

(Ministry of Shipping, Road Transport and Highways, Govt. of India)

(A) INFORMATION AND INSTRUCTIONS FOR BIDDERS

The details of work to be carried out and its scope are given in this tender document, which also indicate brief descriptions of the work to be executed. The bidders are advised to study the same carefully before tendering and they shall be deemed to have fully acquainted themselves with the same.

- 1. The bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders**, in respect of the site conditions including but not restricting to the following which may influence or affect the work or cost thereof under the contract:
 - a) Site conditions including access to the site, existing and required roads and other means of transport/ communication for use by him in connection with the work;
 - b) Source of extent of availability of suitable Boats including water and labour (technical, skilled and unskilled), manpower etc., required for work and Laws and Regulations governing their use and employment.
 - c) Geological, meteorological, topographical, hydrological, morphological and other general features of the site and its surroundings as are pertaining to and needed for the performance of the work.
 - d) The type of equipment and facilities needed, preliminary to / for and in the performance of the work and;
 - e) All other information pertaining to and needed for the work including information as to the risks, contingencies and other circumstances which may influence or affect the work or the cost thereof under this contract.
- 2.** The bidders shall note that information, if any in regard to the work site and local conditions as contained in these tender documents except for the works agreed to be conducted, has been given merely to assist the bidder and is not warranted to be complete.
- 3.** The bidders shall note and bear in mind that the Authority (IWAI) shall bear no responsibility for the lack of acquaintance with site condition etc. or any information relating thereto, on their part. The consequence of the lack of any knowledge aforesaid, on the part of the bidders shall be at their risk and cost and no charges or claims whatsoever consequent upon the lack of any information, knowledge or understanding shall be entertained or payable by the IWAI.

(B) INSTRUCTIONS FOR SUBMISSION OF BID

- 1.0 All covering letters and information to be included in the bid shall be submitted along with the bid itself.
- 2.0 This tender schedule is only for the work of “**Consultancy Services for Preparation of technical economic feasibility report for proposed development of Sunderbans Inland Waterway**”.
- 3.0 **Bank Solvency** for the following amounts: Rs. 18 lakhs (Rupees Eighteen Lakhs only)

If the bidder wishes to quote for the above mentioned project, then the bidder should furnish the stipulated Bank Solvency for that project.

The Bank Solvency should be in the name of the lead bidder only. The banker address, issuing authority, date of issue, validity, contact phone, e-mail ID of Bank are to be mentioned clearly in the Bank solvency. The Bank Solvency should be for minimum amount as mentioned above and issued during current financial year only.

4.0 **EARNEST MONEY DEPOSIT (EMD)**

The bidder shall furnish as part of its tender, EMD as Follows : Rs. 90,000 (Rupees Ninety thousand only)

The EMD shall be submitted through RTGS/NEFT to the account "IWAI Fund (Security Deposits) - A/c No. 513202050000007, IFS Code: UBIN0551325, MICR Code: 110026055 at Union Bank of India, Sector-15, Naya Bans, NOIDA-201301." No other form of payment, e.g. Fixed Deposit, BG etc., shall be accepted for EMD. No bidder shall be exempted from submission of EMD/tender document fee/ Security Deposit, under any circumstances.

- 4.1 The successful Bidder EMD will be converted into Security Deposit (SD) and the successful Bidder has to remit balance amount of SD as per clause 3 of “General Conditions of the Contract”.

4.2 The EMD may be forfeited if:

- a. Bidder withdraws his bid in part or in full or modifies his tender, during the period of bid validity specified on the bid form, or
- b. Make any modification in terms & conditions of tender, which is not acceptable to the IWAI, then the IWAI shall, without prejudice to any right or remedy, be at liberty to forfeit the EMD absolutely.
- c. The successful Bidder fails to furnish in full all the information as required by the tender, withdraws his tender or refuses to sign the contract in accordance with Clause 24 of “Instructions to the Bidder” on issue of letter of intent, or refuses to provide the Security Deposit in accordance with Clause 3 of “General Conditions of the Contract”.

- 4.3 The EMD will be returned to the unsuccessful Bidder after finalization of the tender and no interest will be paid on the EMD amount.

5.0 SUBMISSION OF BID

The submission of bid by any Bidder(s) shall itself imply that the Bidder(s) has read and understood the tender documents, contract, terms and condition, wherein, further that he has understood the details of works and has made all such inquires as may be necessary so as to satisfy himself as regards the entire scope of work specified in the tender document. And upon such satisfaction the Bidder(s) has found himself capable to perform all obligations mentioned under the tender document if adjudged successful bidder.

- 5.1 Bidder(s) shall be individual firm or Joint Venture (JV) or Indian lead firm supported by another firm (s). The bidder has to submit documentary proof of "intent of forming JV/consortium" on Rs.100/- notarized stamp paper at the time of submission of bid. However, successful bidder is required to submit proof of registration of JV/consortium after issue of letter of intent. Experience of individual firms of the JV/consortium will also be considered for evaluation.
- 5.2 Joint venture is allowed with two or more partners and limited to maximum three. The lead partner has to be an Indian Company and shall have minimum 51% equity participation. Shares of other partners shall be within rest 49% with a minimum share not less than 15% for any of the partners forming JV. If a Bidder constitutes (under applicable laws) a joint venture they shall submit and comply with the following requirements:
- a. There shall be a Joint Venture Agreement/ Memorandum of Understanding specific for the contract between the constituent firms, indicating clearly, amongst other things, the proposed distribution of responsibilities both financial as well as technical for execution of the work amongst them. For the purpose of this clause, the most experienced lead partner will be the one defined. A copy of the Joint Venture Agreement/ MOU in accordance with requirements mentioned shall be submitted along with the bid.
 - b. The bid, and in the case of the successful bidder, the Form of Agreement, etc., shall be signed and/ or executed in such a manner as may be required for making it legally binding on all partners (including operative parts of the ensuing Contract in respect of Agreement of Arbitration, etc.). On award of work, the Form of Agreement and Contract Documents shall be signed by all partners of the Joint Venture to conclude Contract Agreement.
 - c. The successful bidder will be required to register their JV under Registration Act, under payment of stamp duty, if the bidders want, then they may register under Indian Company Act 1956 or any other applicable law where the legality of the registration of JV/consortium is established beyond doubt. The proof of such registration of JV shall be submitted within 21 days of issue of Letter of

Acceptance (LOA) of IWAI. The expenditure on the account of registration of JV/consortium shall be borne by the successful bidder.

- d. Lead partner shall be nominated as being partner-in-charge; and this authorization shall be evidenced by submitting a power of attorney, duly notarized, signed by the legally authorized signatories of all the partners.
- e. The lead partner must meet the financial eligibility criteria. However, the technical eligibility criteria/experience can be met by all the JV members together.
- f. The partner-in-charge shall be authorized to incur liabilities and to receive instructions for and on behalf of the partners of the Joint Venture, whether jointly or severally, and entire execution of the Contract (including payment) shall be carried out exclusively through the partner-in-charge. A copy of the said authorization shall be furnished in this Bid.
- g. All partners of the Joint Venture shall be liable jointly and severally for the execution of the Contract in accordance with the Contract terms, and a relevant statement to this effect shall be included in the authorization mentioned under sub clause (c) above as well as in the Form of Bid and the Form of Agreement (in case of a successful bidder).
- h. In the event of default by any partner, in the execution of his part of the Contract, the Employer shall be so notified within 30 days by the partner-in-charge, or in the case of the partner-in-charge being the defaulter, by the partner nominated as partner-in-charge of the remaining Joint Venture. The partner-in-charge shall, within 60 days of the said notice, assign the work of the defaulting partner to any other equally competent party acceptable to the Employer to ensure the execution of that part of the Contract, as envisaged at the time of bid. Failure to comply with the above provisions will make the Consultant liable for action by the Employer under the Conditions of Contract. If the Most Experienced i.e. Lead Partner defined as such in the Communication approving the qualification defaults, it shall be construed as default of the Consultant and Employer will take action under the Conditions of Contract.
- i. Notwithstanding the permission to assigning the responsibilities of the defaulting partner to any other equally competent party acceptable to the Employer as mentioned in sub clause (f) above, all the partners of the Joint Venture will retain the full and undivided responsibility for the performance of their obligations under the Contract and/ or for satisfactory completion of the Works.
- j. The bid submitted shall include all the relevant information as required and furnished separately for each partner of the Joint Venture.

5.3 In case the Bidder is a Consortium, it shall comply with the following additional requirements:

- a) Number of members in a consortium shall be two or more partners and limited to maximum three;
- b) The Bid should contain the information required for each member of the Consortium;
- c) Members of the Consortium shall nominate one member as the lead member (the "Lead Member"), which has to be an Indian company and shall have an equity share holding of at least 51% (fifty one per cent) of the paid up and subscribed equity of the

Consultant during the License Period. The nomination(s) shall be supported by a Power of Attorney, as per the format at APPENDIX-I (A)., signed by all the other members of the Consortium;

- d) Shares of other partners shall be within rest 49%, with a minimum share not less than 15% for any of the partners forming consortium
- e) The lead partner must meet the financial eligibility criteria. However, the technical eligibility criteria/experience can be met by all the JV members together.
- f) The Bid should include a brief description of the roles and responsibilities of individual members, particularly with reference to financial and technical obligations;
 - g) The members of a Consortium shall incorporate a special purpose vehicle as Consultant under the provisions of Companies Act, 1956, (as their wholly owned subsidiary) to execute the Project, if awarded to the Consortium;
 - h) Members of the Consortium shall enter into a Joint Bidding Agreement, for the purpose of making the Bid. The Jt. Bidding Agreement, to be submitted along with the Bid, shall, inter alia:
 - i. Convey the intent to form with shareholding/ ownership equity commitment(s) in accordance with this TENDER DOCUMENT, which would enter into the Contract and subsequently perform all the obligations of the bidder in terms of the Contract,
 - ii. Clearly outline the proposed roles and responsibilities of each member;
 - iii. Commit that in case such consortium of entities is the Preferred Bidder, the Preferred Bidder shall incorporate a wholly owned special purpose company under the provisions of Indian Companies Act, 1956, as the Consultant; in who's subscribed and paid up capital, the Preferred Bidder shall collectively hold 100% equity during the License Period.
 - iv. The Lead Member of such Preferred Bidder consortium shall at all time during the License Period hold equity equivalent to at least 51% of the subscribed and paid up capital of the Consultant. Further, other consortium members whose technical/financial eligibility shall have been used for the purpose of qualification under this TENDER DOCUMENT shall hold at least 26% equity in the subscribed and paid up capital of Consultant/operator during the License Period; Provided however that Authority may in its sole and absolute discretion permit a consortium member to divest [in full/partially] its equity shareholding in the subscribed and paid up capital of the Consultant.
 - v. Include a statement to the effect that all members of the Consortium shall be liable jointly and severally for all obligations of the Bidder consortium in relation to the Project until the expiry of the contract.
 - vi. Statement of Legal Capacity as per Appendix-I(C);
 - vii. Copy of Memorandum and Articles of Association of the both members of the Consortium;
 - viii. Appendix-I (B) providing summary of financial capacity of the Bidder.

- 5.4 Except as provided under this TENDER DOCUMENT and the Bidding Documents, there shall not be any amendment to the Joint Bidding Agreement without the prior written consent of the Authority.
- 5.5 No change in the composition of a Consortium will be permitted by the Authority during the Bidding process
- 5.6 In computing the Technical Capacity and Financial Capacity of the Bidder/ Consortium Members, the Technical Capacity and Financial Capacity of their respective Associates would also be eligible as per the terms hereunder.
- 5.7 If the Bidder is a public listed company, it shall submit a copy of its Annual Financial statements for the last 3 (three) financial years preceding the Bid Due Date clearly setting out the relationship of Associates with the entity whose technical/financial capacity is relied upon. In case a bidder [other than a public listed company], relies on the eligibility capacity of its Associates, they shall be required to submit a Certificate from their respective statutory auditors stating that the entity whose Technical/Financial Capacity is considered for the purposes of this TENDER DOCUMENT and the Bidder are Associates in terms hereof. In case the experience of Associate is claimed by a Bidder, the Bidder shall ensure that such entity continues to remain its Associate through the term of Contract.
- 5.8 For purposes of this TENDER DOCUMENT, Associate means, in relation to the Bidder/ Consortium Member, a person who controls, is controlled by, or is under the common control with such Bidder/ Consortium Member (the "Associate"). As used in this definition, the expression "control" means, with respect to a person which is a company or corporation, the ownership, directly or indirectly, of more than 50% (fifty per cent) of the voting shares of such person, and with respect to a person which is not a company or corporation, the power to direct the management and policies of such person by operation of law.
- 5.9 The Bidder shall enclose with its Bid, to be submitted as per the format at Appendix-I(A), complete with its Annexes, the following:
- (a) Technical Capacity:
For demonstrating the technical capacity, bidder is required to submit the following:
- (i) Certificate of Incorporation of the company along with certified copies of the audited financial results for last three financial years preceding the Bid Due Date in case experience is claimed as owner and/or operator of the Eligible Project
 - (ii) Certificate(s) from its statutory auditors or the concerned client stating the nature of association of the bidder with the project(s) for which eligibility is claimed (refer Appendix I - E).
 - (iii) In case of operator only, duly notarized Certificate of Incorporation of the owner company (client) as well as of the operator and certificate (work order,

completion certificates/ agreements) from the owner for nature of association for the eligible projects

(b) Financial Capacity

- (i) Certificate(s) from its statutory auditors specifying the Net Worth of the Bidder, in the financial year preceding the Bid Due Date and also specifying that the methodology adopted for calculating such Net Worth conforms to the provisions of this Clause. For the purposes of this TENDER DOCUMENT, net worth (the “Net Worth”) shall mean the sum of subscribed and paid up equity and reserves from which shall be deducted the sum of revaluation reserves, miscellaneous expenditure not written off and reserves not available for distribution to equity shareholders.
 - (ii) Certificate from its statutory auditors stating the annual turnover of the bidder in relation to the Eligible Projects during each of the preceding three (3) years before the Bid Due Date.
- 5.10 Tender document/Bid should be submitted in two Envelopes viz. Envelope-1 (containing Technical Bid) and Envelope-2 (containing Financial Bid) and both of these envelopes should be placed **in a single sealed envelope**.
- 5.11 **In case the first envelope (hard & soft copy both) is not submitted with Earnest Money &TENDER document fee in a proper form, the second envelope shall not be opened and rejected summarily.** Both the Envelope-1 & Envelope-2 are to be placed in a single envelope super-scribing “**Consultancy Services for preparation of technical economic feasibility report for proposed development of Sunderbans Inland Waterways**” and shall be received in this Office on or before **1500 hours IST on 04.04.2016** and shall be opened by the duly constituted Tender Evaluation Committee (TEC) of Inland Waterways Authority of India on **04.04.2016 at 1530 hours IST**. Bidder(s) or his authorized representative may remain present at the time of opening, if they so desire.
- 5.12 Authority shall not be responsible for delay caused due to postal/courier or any other modes of delivery. Local Bidder(s) may, if so desire, deposit TENDER document in the bid box provided in the office for this purpose.
- 5.13 The Authority may at its discretion extend the dead line for the submission of bids in accordance with Clause-6 below, in which case, all rights and obligation of the Authority and Bidder(s) previously subjected to the dead line will thereafter be subjected to the dead line as extended.
- 5.14 Late bids will be rejected and returned unopened to the Bidder(s).
- 5.15 Telex, FAX, E-mail and cable offer will not be considered under any circumstances.

6.0 MODIFICATION OF TENDER

At any time prior to the dead line for **Online & Offline** submission of tender document, the Authority may for any reason, whether by its own initiation or in response to clarification requested by a prospective Bidder, modify the tender document by amendments.

Note: Minutes of the pre bid meeting will be uploaded on IWAI website which will be treated as a part of the tender document. All prospective Applicants are requested to attend the pre-bid meeting and give their views on the above.

In order to afford prospective Bidder(s) reasonable time in which to make amendment on this account in their tender document, the Authority may at its discretion fix fresh dead line for submission of Bid.

7.0 LANGUAGE OF TENDER

The tender document filled by the Bidder(s) and all correspondence and documents relating tender document and the bid exchanged by the Bidder(s) and the Authority shall be written in ENGLISH. Any document enclosed with the tender document that is not in English shall be accompanied by the certified English translation.

8.0 PERIOD OF VALIDITY OF BID

- 8.1 Bid shall remain valid for 90 days from the date of opening of price bids.
- 8.2 Notwithstanding Clause – 8.1 above, the Authority may solicit the Bidder’s consent for extension of the bid validity. The request and the response shall be made in writing.
- 8.3 All pages of the bid shall be duly signed by the person/(s) signing the bid. The name and position held by the person signing the bid must be typed or printed below the signature.
- 8.4 The bid shall not contain erased/over writing except as necessary to correct errors by the Bidder in which case the person signing the bid shall initial such correction(s).
- 8.5 TENDER document forms are not transferable and its cost is not refundable.
- 8.6 “Authority” will in no way be responsible for any expenditure incurred by the bidder(s) in the preparation and submission of the TENDER document.

9.0 TECHNICAL BID

Bidder is expected to examine all terms and conditions included in the documents. Failure to act or to provide all requested information will be at bidder's own risk and may result in rejection of the Bid.

9.1 During preparation of the Technical Bid, bidder may give particular attention to the following:

- a) No alternative to key professional staff may be proposed and only one Curriculum Vitae (CV) may be submitted for each position and
- b) A good working knowledge of the language specified in the data sheet is essential for key professional staff on this assignment. Reports must be in the language (s) specified in the data sheet.

The online bid has to be submitted on the following portal ID:-
<https://eprocure.gov.in/eprocure/app>.

The bid shall be submitted online (scanned copy) and offline also along with copy of the following documents in single sealed envelope as per clause 5.10 & 5.11 above:-

1 - Financials

- a) Tender cost (through RTGS/NEFT to the account "IWAI Fund (Security Deposits) - A/c No. 513202050000007, IFS Code: UBIN0551325, MICR Code: 110026055 at Union Bank of India, Sector-15, Naya Bans, NOIDA-201301).
- b) Earnest Money Deposit (through RTGS/NEFT to the account "IWAI Fund (Security Deposits) - A/c No. 513202050000007, IFS Code: UBIN0551325, MICR Code: 110026055 at Union Bank of India, Sector-15, Naya Bans, NOIDA-201301).
- c) Bank Solvency certificate from any nationalized /scheduled bank.

2- Bid Documents

- d) Declaration that Bidder have not been banned or de-listed by any Govt. or quasi Govt. agency or Public Sector Undertaking.
- e) Duly filled "Form of Tender".
- f) Duly filled "Tender Acceptance Letter".
- g) Copy of Original bid document duly filled in and completed in all respects except prices, **signed with rubber seal on each page as a proof of acceptance to all tender terms & conditions.**
- h) A signed declaration stating that no alteration has been made in any form in the downloaded tender document.
- i) Copy of pre-bid minutes / clarifications, signed with rubber seal on each page as a proof of acceptance.

3 - Bidders Documents

- j) Bidders Registration Certificate
- k) Copy of Document in the respect of PAN and Service Tax number.
- l) Copy of Audit report / Balance Sheet /balance sheet along with turnover, **profit/loss account** for the last three financial years (2012-13, 2013-14 & 2014-15).
- m) Average annual financial turnover during last three years ending 31st March of the previous financial year, should be at least for the following amount:- Rs. 45 Lacs (Rupees Forty Five lakhs only)

This has to be submitted with supporting documents certified by a Chartered Accountant. The year with no turnover would also be considered for working out the average.

4- Methodology &Profiles

- n) Description of the methodology to be adopted for the present project giving schematic plan, tentative diagrams proposed approach and programme to carry out this assignment.
- o) List of associates with complete profile who would be associated with the present assignment with their specific scope of work. This should be supported by letters from those associates.

5- Bidders Experience

- p) A brief description of the firm's organization and an outline of recent experience of the Consultants and, in the case of Joint Venture, for each partner, on assignments of a similar nature. The information which you shall provide on each assignment should indicate duration, contract amount and firm's involvement. The details of assignments on hand shall also be furnished.
- q) Copies of similar work orders and performance certificates / job completion certificates (as per prequalification requirement), issued by the client during the past 07 years, for evaluation of financial &technical capabilities of the bidders. **Work orders and performance certificates / job completion certificates shall be in the name of bidder only, clearly indicating the value of work.**
- r) Experience of having successfully completed similar works (Similar works means providing consultancy services for preparation of detail project reports / techno economic feasibility study with Hydrographic Survey for development of navigation channel including river training works and development of Ports, river terminals, riverine structure, IWT terminals, logistics hub etc.) (Non-Government and public sector work order / completion certificate are acceptable) during last 07 years ending last day of month previous to the one in which this tender is invited should be of following amount:

- (i) Three similar works **each** costing not less than Rs. 18 Lakhs; **or**, (ii) Two similar works **each** costing not less than Rs. 27 Lakhs.; **or** (iii) One similar work costing not less than Rs. 36 Lakhs.

NOTE:- Escalation factor as specified below shall be used to bring the value of such completed works at the level of financial year 2015-16.

<u>Work orders issued during the Financial year</u>	<u>Multipling Factor</u>
2014-15	1.070
2013-14	1.145
2012-13	1.225
2011-12	1.311
2010-11	1.403
2009-10	1.501
2008-09	1.606

2008-09 Financial year would be considered from February 2009 onwards.

6- Bank Details

- r) Cancelled cheque for Details of Bank Account for Release of Payment through Electronic Fund Transfer System

7- Joint Venture Documents

- s) Copy of Joint Venture agreement/ MOU signed by JV partners duly signed by the notary on a Rs. 100 non-judicial stamp paper.
- t) Appendix-I(A)/I(B)/I(C)/I(D)/I(E)

The hard copy of tender envelopes (apart from online copy) should be placed in an envelope duly super scribing clearly the name of the work “**Consultancy Services for Preparation of technical economic feasibility report for proposed development of Sunderbans Inland Waterways**” and the note TENDERS TO BE OPENED BY THE ADDRESSEE ONLY” written prominently. The full name, postal address and phone/ Fax of the Bidder shall be written on the bottom left hand corner of each of the sealed envelopes.

10.0 FINANCIAL BID

The Financial Bid must be strictly submitted using the formats attached in Section 5. No additional items/quantities other than that specified in the formats should be proposed by the Consultants since the same shall not be considered for the evaluation/award.

- 10.1 The Financial Bid should clearly identify as a separate amount, the local taxes (including social security), duties, fees, levies and other charges imposed under the applicable law, on the consultants, the sub-consultants, and their personnel (other than nationals or permanent residents of the government's country); unless the Data Sheet specifies otherwise. This cost, however, will not be considered in evaluation.
- 10.2 Consultants may express the price of their services in the Local currency (Indian Rupees).
- 10.3 The service tax shall be considered for release along with invoice, subject to condition that Consultant submits the proof of deposit of the same with a Certificate from CA firm within a period of 90 days of receipt of such service tax.
- 10.4 It may please be noted that this part shall not contain any terms & conditions. Any condition given in the price bid (envelope-2) will be a sufficient cause for rejection of bid.
- 10.5 Bidders are advised to submit bid strictly based upon technical specification, terms and conditions contained in technical specifications / Scope of Work, any change in this may lead to rejection of bid.
- 10.6 Bidders shall sign their Bid with the exact name of the firm. The bid shall be duly signed and sealed by an authorized person of the bidder's organization as following:
 - a) If the Tender is submitted by an individual, it shall be signed by the proprietor above his full name and full name of his firm with its current business address.
 - b) If the Tender is submitted by the proprietary firm, it shall be signed by the proprietor above his full name and full name of his firm with its name and current business address.
 - c) If the Tender is submitted by a firm in partnership, it shall be signed by all the partners of the firm above, their full names and current business address, or by a partner holding the power of attorney for the firm for signing the Tender in which cases a certified copy of the power of attorney shall accompany the Tender. A certified copy of the partnership deed and current business address of all the partners of the firm shall also accompany the Tender.
 - d) If the Tender is submitted by a limited company, or a limited Corporation, it shall be signed by a duly authorized person holding the power of attorney for signing the tender in which case a certified copy of the power of attorney shall accompany the Tender. Such limited company or corporation may be required to furnish satisfactory evidence of its existence before the contract is awarded. Satisfactory evidence means the certificate of incorporation of the limited company or corporation under Indian Companies Act, 1956.

- e) If the Tender is submitted by a group of firms, the sponsoring firm shall submit complete information pertaining to each firm in the group and state along with the bid as to which of the firm shall have the responsibility for tendering and for completion of the contract document and furnish evidence admissible in law in respect of the authority assigned to such firm on behalf of the group of firms for tendering and for completion of the contract document. The full information and satisfactory evidence pertaining to the participation of each member of the group of firms in the firm for this Tender shall be furnished along with the Tender.

11.0 Clarifications & Miscellaneous Provisions

The bid document shall be completed in all respects and shall be submitted together with the requisite information and appendices. They shall be complete and free from ambiguity, change or inter-lineation. In case IWAI requires any information/ clarification(s) from the Bidder in respect of the bid documents, the bidder shall be required to furnish the same in writing, to IWAI at the earliest where no time is specified by IWAI to furnish the same. A failure to furnish the same shall entitle IWAI to cancel/ reject the bid

- 11.1 If the space in the bid form or in the Appendices thereto is insufficient, additional pages shall be separately added. These pages shall be consecutively page numbered and shall also be signed by the Bidder.
- 11.2 The Bid documents shall be signed by the bidder on each page.
- 11.3 Bidders should indicate at the time of quoting against this bid their full postal addresses, telephone numbers and other communication details enabling IWAI to contact the bidder in case the need so arise.
- 11.4 Bidder shall set their quotations in firm figures and without qualification. Each figure stated should also be repeated in words and in the event of any discrepancy between the amounts stated in figures and words; the amount quoted in words shall be deemed the correct amount. Bid containing qualifying expressions such as “subject to minimum acceptance” or “subject to availability of manpower/ equipment” etc. is liable to be rejected.
- 11.5 IWAI shall have an unqualified option under the said bid bond to claim the amount there under in the event of the Bidder failing to keep the bid valid up to the date specified or refusing to accept work or carry it out in accordance with the bid if the IWAI decides to award the Work to the Bidder.
- 11.6 The EMD shall be retained with the IWAI until finalization of tenders. Further, security deposit as per the clause of Security shall be payable by the successful bidder. If the bidder fails to furnish the security deposit in accordance with

tender conditions EMD shall be forfeited. In the event of the Bidder becoming the successful Consultant. The amount of EMD would be adjusted against the Security deposit.

- 11.7 IWAI shall, however, arrange to release the EMD in respect of unsuccessful bidders within 30 (thirty) days of placement of order to successful bidder. No interest shall be payable on EMD by IWAI.
- 11.8 Late bids, delayed bids received after the stipulated last date and time for receipt of bids, due to any reasons whatsoever will not be considered.
- 11.9 The Tender Evaluation Committee (TEC) shall open the tenders in the presence of the intending bidder(s) who may be present at the date and time of opening informed in the bid document or subsequently. If any of the bidder or his representative is not present at the time of opening of tender, the TEC shall, on opening of tenders of the absentee bidder, prepare a statement of the attested and unattested corrections in the tender over their signature. Such a list shall then be binding on the absentee bidder.
- 11.10 The IWAI reserves the right at the time of award of order to increase or decrease the quantity specified in the price schedule without any change in unit prices or other terms and conditions. The successful Bidder will be bound to complete the works at the same rate and terms & conditions.
- 11.11 The IWAI will notify the successful Bidder in writing that the bid has been accepted. The successful Bidder will be required to enter into a contract with the IWAI in the form given in these documents and has to submit Security deposit as per Clause 3 of "General Conditions of the Contract", within 15 days of award of work.
- 11.12 The IWAI shall forward a draft contract to the Bidder along with award of work order. Within 15 days of receipt of such documents the successful Bidder shall sign the contract on non-judicial stamp paper of Rs. 100/- under the terms and conditions as indicated in the "DRAFT CONTRACT" forwarded by the IWAI. In case of any refusal/ failure on the part of such successful bidder to execute such a contract shall be deemed to be a failure on the part of such successful bidder to comply with the terms contained herein.
- 11.13 None of these documents shall be used by the successful Bidder for any purpose other than that of this contract.
- 11.14 IWAI reserves the right to reject any or all bids without assigning any reasons.

12.0 BID EVALUATION

- 12.1 A two-stage procedure shall be adopted for evaluating the bids.

Technical Bid Evaluation

- 12.2 The Evaluation Committee appointed by the IWAI shall carry out its evaluation with respect to the (i) submission of technical bid as per terms and conditions of the tender, (ii) pre-bid clarification, (iii) Experience of the bidder, Manpower and equipment available with respect to the Technical & Special conditions and Scope of Work stipulated in the tender document.
- 12.3 The Evaluation Committee appointed by the IWAI shall carry out its evaluation applying the evaluation criteria and point system specified in the data sheet. Each responsive Bid shall be attributed a technical score (St.) The technical Bid should score at least 75 points to be considered responsive.
- 12.4 The marks assigned to Technical Evaluation criteria are:

S. No.	Description	Marks
1	Firm's relevant experience for the assignment	25
2	The quality of Approach & Methodology	30
3	Qualifications and competence of the key staff for the assignment	45
	Total	100

12.4.1 SUB-CRITERIA

- a) Criteria for experience of the firm for the assignment (past seven (7) years) - 25 Marks

Sl. No.	Description	Marks
1	Year of Establishment of the Firm	5
2	Average Annual Turnover (last 3 years) from consultancy business	5
3	Specific experience of the Consultant in preparation of detail project reports / techno economic feasibility study/Hydrographic Survey for development of navigation channel including river training works and construction of Ports, river terminals, riverine structure, IWT terminals, logistics hub etc. (5 marks for each specific experience)	15

- b) Adequacy of the proposed Approach & Methodology in responding to Terms of Reference - 30 Marks

Sl. No.	Description	Marks
1	Overall understanding of ToR	5
2	Quality of Approach and Methodology (including Survey related works)	15
3	Work Plan	10

c) Qualification and Competence of the Key Professionals for the assignment shall be evaluated. The weightage for various key staff is as under:

Sl. No.	Description	Nos.	Marks
1	Team Leader cum Waterway Expert	1	10
2	Structural Engineer	1	8
3	Naval Architect	1	8
4	Hydrographic/Dredging Expert	1	7
5	Soil Engineer/Foundation Engineer	1	6
6	Transport Economist	1	6
Total Marks			45

The score in technical evaluation of the bidder should be at least 75 marks for the bid to be considered responsive for financial evaluation.

NOTE: If the Key Personnel proposed in the CV does not fulfil the minimum academic qualification (as mentioned in clause 3.0 of TOR), the overall score of his CV will be evaluated as zero. All such Key Personnel who does not fulfil the minimum qualification will have to be replaced by the successful bidder. The bidder will be intimated for replacement of such personnel and work will be awarded after receipt of CV's fulfilling the tender criteria.

13.0 Financial Bid Evaluation

13.1 The award of work shall be done to lowest bidder amongst qualifying consultants shortlisted after Technical Evaluation.

4.0 Online Submission of Bids

Instructions to the Consultants/Bidders for the e-submission of the bids online through the Central Public Procurement Portal for eProcurement <https://eprocure.gov.in/eprocure/app>

- 1) Possession of valid Digital Signature Certificate (DSC) and enrolment/registration of the Consultants/bidders on the e-procurement / e-tender portal is a prerequisite for e-tendering.
- 2) Bidder should do the enrolment in the e-Procurement site using the <https://eprocure.gov.in/eprocure/app> option available on the home page. Portal enrolment is generally free of charge. During enrolment/registration, the bidders should provide the correct/true information including valid email_id. All the correspondence shall be made directly with the Consultants/bidders through email_id provided.
- 3) Bidder need to login to the site thro' their user ID/ password chosen during enrolment/registration.
- 4) Then the Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by SIFY/TCS/nCode/eMudra or any Certifying Authority recognized by CCA India on eToken/SmartCard, should be registered.
- 5) The DSC that is registered only, should be used by the bidder and should ensure safety of the same.
- 6) Consultant/Bidder may go through the tenders published on the site and download the required tender documents/schedules for the tenders he/she is interested.
- 7) After downloading / getting the tender document/schedules, the Bidder should go thro' them carefully and then submit the documents as asked.
- 8) Bidder then logs in to the site through the secured log in by giving the user id/ password chosen during enrolment/registration and then by giving the password of the eToken/SmartCard to access DSC.
- 9) Bidder selects the tender which he/she is interested in by using the search option & then moves it to the 'my favorites folder.
- 10) From the my favorites folder, he selects the tender to view all the details indicated.
- 11) It is construed that the bidder has read all the terms and conditions before submitting their offer. Bidder should go through the tender schedules carefully and upload the documents as asked, otherwise, the bid will be rejected.
- 12) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document/schedule and generally, they can be in PDF/xls/rar/jpg/dwf formats. If there is more than one document, they can be clubbed together and can be provided in the requested format. Each document to be uploaded through online for the tenders should be less than 2 MB. If any document is more than 2MB, it can be reduced through zip/rar and the same can be uploaded, if permitted.
- 13) The Bidders can update well in advance, the documents such as certificates, annual report details etc., under My Space option and these can be selected as per tender requirements and then send along with bid documents during bid submission. This will facilitate the bid submission process faster by reducing upload time of bids.
- 14) **Bidder should submit the Fee/ EMD as specified in the tender. The original payment instruments should be posted/couriered/given in person to the Tender Inviting Authority within the due date as mentioned in this tender document. Scanned copy of the instrument should be uploaded as part of the offer, if asked for.**
- 15) While submitting the bids online, the bidder reads the terms & conditions and accepts the same to proceed further to submit the bid packets.
- 16) The bidder has to select the payment option as offline to pay the FEE/ EMD as applicable and enter details of the instruments.

17) The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise submitted bid will not be acceptable.

18) The bidder has to digitally sign and upload the required bid documents one by one as indicated. Bidders to note that the very act of using DSC for downloading the bids and uploading their offers shall be deemed to be a confirmation that they have read all sections and pages of the bid document including General conditions of contract without any exception and have understood the entire document and are clear about the requirements of the tender requirements.

19) The bidder has to upload the relevant files required as indicated in the cover content. In case of any irrelevant files, the bid will be rejected.

20) If the price bid format is provided in a spread sheet file like BoQ_xxxx.xls, the rates offered should be entered in the allotted space only and uploaded after filling the relevant columns. The Price Bid/BOQ template must not be modified/replaced by the bidder, else the bid submitted is liable to be rejected for this tender.

21) The bidders are requested to submit the bids through online e-tendering system to the Tender Inviting Authority (TIA) well before the bid submission end date & time (as per Server System Clock). The TIA will not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the bidders at the eleventh hour.

22) After the bid submission, the acknowledgement number, given by the e-tendering system should be printed by the bidder and kept as a record of evidence for online submission of bid for the particular tender and will also act as an entry pass to participate in the bid opening date.

23) The bidder should ensure/see that the bid documents submitted should be free from virus and if the documents could not be opened, due to virus, during tender opening, the bid is likely / liable to be rejected.

24) The time settings fixed in the server side & displayed at the top of the tender site, will be valid for all actions of requesting, bid submission, bid opening etc., in the e-tender system. The bidders should follow this time during bid submission.

25) All the data being entered by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered will not viewable by unauthorized persons during bid submission & not be viewable by any one until the time of bid opening.

26) Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid openers public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.

27) The confidentiality of the bids is maintained since the secured Socket Layer 128 bit encryption technology is used. Data storage encryption of sensitive fields is done.

28) The bidder should logout of the tendering system using the normal logout option available at the top right hand corner and not by selecting the (X) exit option in the browser.

29) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.

Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk. The contact number for the helpdesk is 1800 233 7315

E-mail: hc.iwai@nic.in

Contact Telephone Numbers: 0120-2543931; Fax No. : 0120-2522969

E-mail: hc.iwai@nic.in

In person: Cdr. P.K. Srivastava., Hydrographic Chief

**

5.0 GENERAL CONDITIONS OF CONTRACT

CONTENTS

CLAUSE-1	:	DEFINITIONS
CLAUSE-2	:	INTERPRETATIONS
CLAUSE-3	:	SECURITY DEPOSIT
CLAUSE-4	:	REFUND OF SECURITY DEPOSIT
CLAUSE-5	:	SUFFICIENCY OF TENDER
CLAUSE-6	:	CONTRACT DOCUMENTS
CLAUSE-7	:	DISCREPANCIES AND ADJUSTMENT OF ERRORS
CLAUSE-8	:	DUTIES AND POWERS OF THE ENGINEER-IN-CHARGE'S REPRESENTATIVES
CLAUSE-9	:	ASSIGNMENT AND SUB-LETTING
CLAUSE-10	:	FACILITIES TO OTHER CONSULTANTS
CLAUSE-11	:	CHANGE IN CONSTITUTION
CLAUSE-12	:	WORKS TO BE CARRIED OUT IN ACCORDANCE WITH SPECIFICATION DRAWINGS AND ORDERS ETC.
CLAUSE-13	:	SETTING OUT THE WORKS
CLAUSE-14	:	DEVIATIONS
CLAUSE-15	:	CONSULTANTS SUPERVISION
CLAUSE-16	:	INSTRUCTION AND NOTICE
CLAUSE-17	:	PATENT RIGHTS
CLAUSE-18	:	EQUIPMENT
CLAUSE-19	:	LAWS GOVERNING THE CONTRACT
CLAUSE-20	:	LABOUR
CLAUSE-21	:	FORCE MAJEURE
CLAUSE-22	:	LIABILITY FOR DAMAGE, DEFECTS OR IMPERFECTIONS & RECTIFICATION THEREOF
CLAUSE-23	:	CONSULTANT'S LIABILITY AND INSURANCE
CLAUSE-24	:	SUSPENSION OF WORKS
CLAUSE-25	:	FORECLOSURE OF CONTRACT IN FULL OR IN PART DUE TO ABANDONMENT OR REDUCTION IN SCOPE OF WORK
CLAUSE-26	:	TERMINATION OF CONTRACT ON DEATH
CLAUSE-27	:	TERMINATION OF CONTRACT IN FULL OR IN PART
CLAUSE-28	:	COMPLETION TIME AND EXTENSIONS
CLAUSE-29	:	COMPENSATION FOR DELAY
CLAUSE-30	:	LIQUIDATED DAMAGES
CLAUSE-31	:	INSPECTION AND APPROVAL

CLAUSE-32 :	COMPLETION CERTIFICATE
CLAUSE-33 :	MEASUREMENTS
CLAUSE-34 :	PAYMENT ON ACCOUNT
CLAUSE-35 :	TAXES, DUTIES AND LEVIES ETC
CLAUSE-36 :	TAX DEDUCTION AT SOURCE
CLAUSE-37 :	PAYMENT ON FINAL BILL
CLAUSE-38 :	OVER PAYMENTS AND UNDER PAYMENTS
CLAUSE-39 :	CONTRACT MATTERS TO BE TREATED AS CONFIDENTIAL
CLAUSE-40 :	SUM PAYABLE BY WAY OF COMPENSATION TO BE CONSIDERED IS REASONABLE WITHOUT PREFERENCE TO ACTUAL LOSS
CLAUSE-41 :	ARBITRATION
CLAUSE-42 :	VALIDITY OF TERMS & CONDITIONS
CLAUSE – 43:	DEFECT LIABILITY PERIOD
CLAUSE – 44:	WHEN THE CONTRACT CAN BE DETERMINED
SCHEDULE Contract	'B': General Rules & Directions with reference to General Conditions of Contract

CLAUSE - 1: DEFINITIONS

In the contract, the following words & expressions shall, unless context otherwise requires, have the meaning thereby respectively assigned to them:

- (i) **“Contract”** means the documents forming the tender and acceptance thereof and the formal agreement executed between the Authority and the Consultant together within the documents referred to therein including all the attached documents listed in the tender documents and Annex/Appendices.
- (ii) **“Contract sum”** means the agreed and accepted Consultancy Fee for the work as per the Letter of Award (LoA) including taxes as applicable as per the prevailing rates at the time of LoA.
- (iii) **Consultant:** means the successful bidder who is awarded the contract to perform the work covered under this tender document and shall be deemed to include the Consultant’s successors, executors, representatives or assign approved by the Engineer-in-charge.
- (iv) **Employer** means the Chairman, Inland Waterways Authority of India and his successors.
- (v) **IWAI/ Authority/ Department/ Owner** shall mean the Inland Waterways Authority of India, which invites tenders on behalf of the Chairman, IWAI and includes therein-legal representatives, successors and assigns.
- (vi) **Chairman:** means Chairman of Inland Waterways Authority of India.
- (vii) **Member (Technical):** means Member (Technical) of the IWAI.
- (viii) **Engineer-In-Charge (EIC)** means the Hydrographic Chief authorized to direct, supervise and be In-charge of the works for the purpose of this contract who shall supervise and be in charge of the work.
- (ix) **Engineer-in-charge representative** shall mean any officer of the IWAI nominated by the Engineer-in-charge for day to day supervision, checking, taking measurement, checking bills, ensuring quality control, inspecting works and other related works for completion of the project.
- (x) **Hydrographic Chief:** means the Hydrographic Chief of the IWAI.
- (xi) **Director** means the Director of the IWAI, as the case may be.
- (xii) **Deputy Director** means the Dy. Director of the IWAI, as the case may be.
- (xiii) **Assistant Director** means the Asstt. Director of the IWAI, as the case may be.
- (xiv) **Assistant Hydrographic Surveyor** means the Assistant Hydrographic Surveyor of the IWAI, as the case may be
- (xv) **Work Order** means a letter from the IWAI conveying the acceptance of the tender/offer subject to such reservations as may have been stated therein.
- (xvi) **Day:** means a calendar day beginning and ending at mid-night.
- (xvii) **Week:** means seven consecutive calendar days
- (xviii) **Month:** means the one Calendar month.
- (xix) **Site** means the waterway and / or other places through which the works are to be executed.
- (xx) **Vessel:** means the vessel/craft belonging to the Consultant for carrying out the work.

- (xxi) **Drawings** : means the drawings referred to in the specifications and / or appended with the tender document, any modifications of such drawings approved in writing by the Engineer-in-Charge and shall also include drawings issued for actual execution of the work time to time by the Engineer-in-Charge.
- (xxii) **Urgent Works**: means any work urgent in nature which in the opinion of the Engineer-In-Charge becomes necessary at the time of execution and / or during the progress of work to obviate any risk or accident or failure or to obviate any risk of damage to the vessel structure, or required to accelerate the progress of work or which becomes necessary for security or for any other reason the Engineer-in-Charge may deem expedient.
- (xxiii) **Work/ works**: means work / works/services to be executed in accordance with the contract.
- (xxiv) **“Consultancy Services”** means Consultancy Services/Works to be executed in accordance with the contract.
- (xxv) **“Schedules”** referred to in these conditions shall mean the relevant schedules annexed to the tender papers or the standard schedule of rates of the govt. mentioned with the amendments thereto issued up to the date of receipt of the tender.
- (xxvi) **“District specifications”** mean the specifications followed by the State Government in the area where the work is to be executed.
- (xxvii) **Tendered value** means the value of the entire work as stipulated in the letter of award.

CLAUSE – 2: INTERPRETATIONS

- 2.1 Words imparting the singular only shall also include the plural; he includes she and vice-versa unless this is repugnant to the context.

Heading and marginal notes in these General Conditions shall not be deemed to form part thereof or be taken into consideration in the interpretation of construction thereof of the contract.

CLAUSE – 3: SECURITY DEPOSIT

3.1 PERFORMANCE GURANTEE

The Consultant shall be required to deposit an amount equal to 5% of the tendered value of the work as performance guarantee in the form of either demand draft payable at any nationalized/schedule bank **OR** an irrevocable bank guarantee bond of any scheduled bank or State Bank of India in accordance with the form prescribed within 15 days of the issue of the work order.

The bank guarantee shall be valid till expiry of 90 days after the end of 'Period of liability' defined in the contract document.

3.2 SECURITY DEPOSIT

- 3.2.1 The successful bidder EMD will be converted in to security deposit (SD) and the successful bidder has to remit balance amount of Security Deposit Balance Security Deposit (i.e. Total 5% Security Deposit deducting EMD submitted with technical bid) in the form of Demand Draft. Bank guarantee will not be accepted as security deposit.
- 3.3 The total performance guarantee/security deposit shall remain with IWAI till defect liability period after satisfactory completion of work.
- 3.4 Interest will not be paid on security deposit or performance guarantee.
- 3.5 If the Consultant having been called upon by the Engineer in charge to furnish the security fails to do so within the specified period, the EMD submitted by the Consultant shall be forfeited. It shall be lawful for the Employer:
- i) To recover the amount of balance security deposit by deducting the amount from the pending bills of the Consultant under this contract or any other contract with the IWAI, OR
 - ii) To cancel the contract or any part thereof and to carry out the work or authorize to carry out the work/ works at the risk and cost of the Consultant.
- 3.6 No claim shall lie against the IWAI either in respect of interest or any depreciation in value of any security.
- 3.7 The Consultant shall guarantee the execution of the terms of the Contract within stipulated period of time from the date of acceptance of the bid and in order to execute the work uniformly the Consultant will ensure deployment of adequate number of survey personnel and equipment throughout the contract period. Any damage or defect that may arise or lie undiscovered at the time of the final payment connected in any way with the work done by him or in the workmanship, shall be rectified by the Consultant at his own expenses as deemed necessary by the engineer or in default, the engineer may cause the same to be made good by other agencies and deduct expenses (of which the certificate of the Engineer shall be final) from any sums that may be then or at any time thereafter, become due to the Consultant under the Contract or from the amount released by encashing the contract performance guarantee or recover otherwise from the Consultant.
- 3.8 If the Consultant neglects to observe or fails to perform any of his obligations under the contract, it shall be lawful for the Employer/ EIC to forfeit either in whole or in part, the security deposit furnished by the Consultant. However, if the Consultant duly

performs and completes the contract in all respects, the IWAI shall refund the security deposit to the Consultant after deduction of cost and expenses that the IWAI may have incurred and other money including all losses and damages which the IWAI is entitled to recover from the Consultant.

- 3.9 All compensation or other sums of money payable by the Consultant under the terms of the contract or any other contract or on any other account whatsoever, may be deducted from or paid by the sale of a sufficient part of his security or from the interest arising there from or from any sums which may be due or may become due to the Consultant by the IWAI on any account whatsoever. Also in the event of the Consultant's security deposit being reduced by reasons of such deductions, as aforesaid the Consultant shall, within 14 days of receipt of notice of demand from the Engineer-in-Charge make good the deficit in his security deposit.

CLAUSE – 4: REFUND OF SECURITY DEPOSIT

The security deposit less any amount due shall, on demand, be returned to the Consultant on the expiry of defects liability period or on payment of the amount of the final bill payable in accordance with the agreement conditions, whichever is later, provided the engineer-in-charge is satisfied that there is no demand outstanding against the Consultant.

CLAUSE – 5: SUFFICIENCY OF TENDER

- 5.1 The Consultant shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates quoted in the schedule of Quantities and Prices which shall (except as otherwise provided in the contract) cover all his obligations under the contract and all matters and things necessary for the proper execution and completion of the works in accordance with the provisions of the contract and its operation during execution of work.
- 5.2 The Consultant is deemed to have independently obtained all necessary information for the purpose of preparing the bid and his bid as accepted shall be deemed to have taken into account all contingencies as may arise due to such information or lack of the same.
- 5.3 The Consultant shall be deemed to have examined, visited and acquainted himself with the site and the surroundings to have satisfied himself to the nature contract and the stretch to be dredged in all weather conditions and as to the nature and conditions of means of transport and communication, whether by land, or by sea, to have made local independent inquires as to the soil/sub soil conditions variations thereof, storms, prevailing winds, oceanographic, bathymetric, climatic conditions and all other matter effecting the work.

- 5.4 Any neglect or omission or failure on the part of the Consultant in obtaining necessary and reliable information upon the forgoing or any other matter affecting the contract shall not relieve the Consultant, of his responsibility/any risk/liability for completion of the work in strict accordance with the terms of the Contract.

CLAUSE – 6: CONTRACT DOCUMENTS

- 6.1 The language in which the contract documents shall be drawn up shall be English and if the said documents are written in more than one language, the language according to which the contract is to be constructed and interpreted shall be English and designated as the ‘Ruling Language’.
- 6.2 The Consultant shall be furnished free of charge certified true copy of the contract document.
- 6.3 None of these Documents shall be used by the Consultant for any purpose other than that of this contract.

CLAUSE – 7: DISCREPANCIES AND ADJUSTMENT OF ERRORS

- 7.1 The case of discrepancy between the Schedule of Quantities and prices, the Specifications and/ or the drawings, the following order of precedence shall be observed : -
- (a) Description in the Schedule of Quantities and Prices.
 - (b) Relevant Specifications and Special Conditions, if any.
 - (c) Drawings.
 - (d) General Specifications.
- 7.2 Any error in description, quantity or price in Schedule of Quantities and Prices or any omission there from shall not vitiate the Contract or release the Consultant from the execution of the whole or any part of the Works comprised therein according to drawings and specifications or from any of his obligations under the contract.
- 7.3 If on check there is difference in the amount worked out by Consultant in the schedule of quantities and prices and General summary the same shall be adjusted in accordance with the following rules:
- (a) In the event of error occurring in the amount column of schedule of quantities and prices as result of wrong multiplication of unit price and quantity, the unit price shall be regarded, as firm and multiplication shall be amended on the basis of the quoted unit price.
 - (b) All errors in totalling in the amount column and in carrying forward totals shall be corrected.

- (c) The totals of various sections of schedule of quantities and price amended shall be carried over to the General Summary and the tendered sum amended accordingly. The tendered sum so altered shall, for the purpose of tender, be substituted for the sum originally tendered and considered for acceptance instead of the original sum quoted by the bidder. Any rounding off of quantities or in sections of schedule of quantities and prices or in General summary by the bidder shall be ignored.

CLAUSE-8: DUTIES AND POWERS OF THE ENGINEER-IN-CHARGE REPRESENTATIVE

- 8.1 The duties of the representative of the Engineer-in-Charge are to watch and supervise the works and to test and examine any equipment to be used or methodology employed in connection with the works.

CLAUSE – 9: ASSIGNMENT AND SUB-LETTING

The Consultant shall not sub-let, transfer or assign the whole or any part of the work under the contract. Provided that the Engineer-in-Charge may only in certain circumstances approve and authorize the Consultant to replace domain experts with appropriate qualification suitable for carrying-out the works as per tender “Scope of Work”, which in his opinion, is not substantial, after the Consultant submits to him in writing the details of the consultant with his past experience in the said work/trade. Nevertheless any such approval or authorization by the Engineer-in-Charge shall not relieve the Consultant from his any or all liabilities, obligations, duties and responsibilities under the contract. The Consultant shall also be fully responsible to the IWAI for all the acts and omissions of the engaged Surveyor, his employees and agents or persons directly employed by the Consultant.

Clause – 10: CHANGE IN CONSTITUTION

Where the Consultant is a partnership firm, prior approval in writing of the Engineer-in-Charge shall be obtained before any change is made in the constitution of the firms, where the Consultant is an individual or a Hindu Undivided Family business concern, such approval, as aforesaid, shall like-wise be obtained before the Consultant enters into any partnership firm which would have the right to carry out the work undertaken by Consultant. If prior approval as aforesaid is not obtained the Consultant shall be deemed to have been assigned in contravention to Clause 32 hereof and the same action will be taken and the same consequences shall ensure as provided for in the said clause-33.

CLAUSE – 11: WORKS TO BE CARRIED OUT IN ACCORDANCE WITH SPECIFICATION DRAWINGS AND ORDERS ETC.

- 11.1 The Consultant shall execute the whole and every part of the work in the most substantial and workman like manner and both as regards survey and otherwise in every respect in strict conformity with the specification laid down or as may be laid down by the Engineer-in-Charge under the terms of the contract.
- 12.2 The Consultant shall be entitled to receive, on demand, in addition to the contract documents, in accordance with the provisions of contract, the documents set forth herein in respect of the work on commencement or during the performance of the contract:
- (a) Specifications or revisions thereof other than standard printed specifications
 - (b) Explanations, instructions etc.

Such further drawings, explanation, modifications and instruction, as the Engineer-in-Charge may issue to the Consultant from time to time in respect of the work shall be deemed to form integral part of the contract and the Consultant shall be bound to carry out the work accordingly.

- 12.3 All instructions and orders in respect of the work shall be given by the Engineer-in-Charge in writing. However, any verbal instructions or order shall be confirmed by the Engineer-in-Charge as soon as practicable without loss of time and only such written instruction shall be deemed to be valid.
- 12.4 The Consultant shall not be entitled to any right or claim whatsoever by reason of any representation/ explanation/ statement/ directions/ instructions or alleged representations/ explanation/ statement/ directions/ instructions, promises or guarantees given or alleged to have been given to him by any person other than what has been stated in the contract in his personal capacity.

CLAUSE – 13: SETTING OUT THE WORKS

The Consultant shall provide all assistance and adhere to the instruction of E.I.C during the course of surveying, inspection, etc.

CLAUSE – 14: DEVIATIONS

- 14.1 The Engineer-in-Charge shall have powers to make any deviations in the original specifications of the works or any part thereof that are in his opinion, necessary at the time of or during the course of execution of the works for the aforesaid purpose or for any other reason, if it shall, in the opinion of the Engineer-in-Charge, be desirable, he shall also have the powers to make Deviations, such as (i) Variations (ii) Extra (iii) Additions / Omissions and (iv) Alterations or Substitutions of any kind. No such Deviations in the specification or drawings or designs or Schedule of Quantities, as

aforesaid, shall in any way vitiate or invalidate the contract and any such Deviations which the Consultant may be directed to do shall form integral part of the contract as if originally provided therein and the Consultant shall carry out the same on the same conditions in all respects on which he agreed to do the works under the contract.

- 14.2 Such items of work, as are required, to be executed at the rates already provided in the schedule of quantities, shall apply in respect of the same item(s) of work to be executed due to Variation.
- 14.3 If requested by the Consultant the time for completion of the work shall, in the event of any deviation resulting in additional cost over the contract sum be extended in the proportion which altered, additional or substituted work bears to the original contract sum plus such further additional time as may be considered reasonable by the Engineer-in Charge whose decision shall be conclusive as to such provision:
- 14.4 Under the circumstances, the Consultant shall at any stage not suspend the work on account of non-settlement of rates of such Deviated items.

CLAUSE - 15: CONSULTANTS SUPERVISION

- 15.1 The Consultant shall either himself supervise the execution of the works or shall appoint at his own expense, an Engineer as his accredited agent approved by the Engineer-in-Charge, if Consultant has himself not sufficient knowledge or experience to be capable of receiving instruction or cannot give his full attention to the works. The Consultant or his agent shall be present at the site(s) and shall superintend the execution of the works with such additional assistance in each trade, as the work involved shall require and considered reasonable by the Engineer-in-Charge, directions/instructions given by the Engineer-in-Charge to the Consultant's agent shall be considered to have the same force as if these had been given to the Consultant himself.
- 15.2 If the Consultant fails to appoint a suitable agent as directed by the Engineer-in-Charge, the Engineer-in-Charge shall have full powers to suspend the execution of the works until such date as a suitable agent is appointed by the Consultant and takes over the supervision of the work. For any such suspension, the Consultant shall be held responsible for delay so caused to the works.

CLAUSE - 16: INSTRUCTION AND NOTICE

- 16.1 Except as otherwise provided in this contract, all notices to be given on behalf of the IWAI and all other actions to be taken on its behalf may be given or taken by the Engineer-in-Charge or any officer for the time being entrusted with the functions, duties and powers of the Engineer-in-Charge.

- 16.2 All instructions, notices and communications etc. under the contract shall be given in writing and any such oral orders / instructions given shall be confirmed in writing and no such communication which is not given or confirmed in writing shall be valid.
- 16.3 All instructions, notices and communications shall be deemed to have been duly given or sent to the Consultant, if delivered to the Consultant, his authorized agent, or left at, or posted to, the address given by the Consultant or his authorized agent or to the last known place of abode or business of the Consultant or his agent of services by post shall be deemed to have been served on the date when in the ordinary course of post these would have been delivered to him and in other cases on the day on which the same were so delivered or left.
- 16.4 The Engineer-in-Charge shall communicate or confirm the instructions to the Consultant in respect of the execution of work in a work site order book maintained in the office of the Engineer-in-Charge and the Consultant or his authorized representative shall confirm receipt of such instructions by signing the relevant entries in this book. If required by the Consultant, he shall be furnished a certified true copy of such instruction(s). The proforma for Site Order Book to be maintained at site is given in Annexure – I.
- 16.5 The “Hindrance Register” shall be maintained at the site of work, where any hindrance which comes to the notice of the representative of the Engineer-in-Charge shall be recorded and immediately a report will be made to the Engineer-in-Charge within a week. The Engineer-in-Charge shall review the Hindrance Register at least once in a month. The pro-forma on which the Hindrance Register shall be maintained is given in Annexure-II.

CLAUSE – 17: PATENT RIGHTS

- 17.1 The Consultant shall indemnify the IWAI, its representatives or its employees against any action, claim or proceeding relating to infringement or use of any patent or design or any alleged patent or design rights and shall pay any royalties or other charges which may be payable in respect of any article or charts or reports or part thereof included in the contract. In the event of any claim being made or action being brought against the IWAI or any agent, servant or employee of the IWAI in respect of any such equipment as aforesaid the Consultant shall immediately be notified thereof. Provided that such indemnity shall not apply when such infringement has taken place in complying with the specific directions issued by the IWAI but the Consultant shall pay any royalties or other charges payable in respect of any such use, the amount so paid being reimbursement to the Consultant only if the use was the result of any drawings and or specifications issued after submission of the tender.
- 17.2 The Consultant shall at his own cost and expense, defend all suits or proceedings that may be instituted for alleged infringement of any patents involved in the works and in case of an award of damages, the Consultant shall pay for such award. In the event of

any suit or proceedings instituted against the owner, the same shall be defended at the cost and expense of the Consultant who shall also satisfy/ comply any decree, order or award made against the owner.

17.3 Neither the Consultant nor through any counsel engaged by the Consultant shall defend himself in the name of the IWAI in any suit or proceedings.

17.4 The IWAI shall not be under any obligation to make the final payments to the Consultant till any such suit or claim remains unsettled.

CLAUSE – 18: EQUIPMENT

18.1 The Consultant shall at his own expenses provide / arrange all equipment required for the bonafide use on work under the contract.

18.2 All equipment to be provided by the Consultant shall be in conformity with the specifications laid down in the contract and the Consultant shall furnish from time to time proof and samples, at his cost, of the equipment as may be specified.

CLAUSE - 19: LAWS GOVERNING THE CONTRACT

The Courts at NOIDA only shall have the jurisdiction for filing the award of the arbitration and for any other judicial proceedings.

CLAUSE - 20: LABOUR

20.1 (a) The Consultant shall employ labour in sufficient numbers to maintain the required rate of progress and of quality to ensure workmanship of the degree specified in the contract and to the satisfaction of the Engineer-in-Charge. The Consultant shall not employ in connection with the works any person who has not completed eighteen years of age the minimum age specified in Indian Labour Law.

(b) If any foreigner is employed by the Consultant to work within the site the later shall ensure that such foreigner possesses the necessary special permit issued by the civil Authorities in writing and also comply with the instructions issued therefore from time to time. In the event of any lapse in this regard on the part of such foreigner the Consultant shall be personally held responsible for the lapse &IWAI shall not be liable in any event.

20.2 The Consultant shall pay to labourer employed by him either directly or through sub Consultants wages not less than wages as defined in Minimum Wages Act and amendments made from time to time.

20.3 The Consultant shall in respect of labour employed by him either directly or through sub-Consultant comply with or cause to be complied with the contract labour

(Regulation and Abolition) Act 1970 and Rules framed thereunder in regard to all matters provided therein.

20.4 The Consultant shall comply with the provision of all the Acts Laws, any Regulation or Bye Laws of any Local or other Statutory Authority applicable in relation to the execution of works such as:

- i) Payment of wages Act.1936 (Amended) ii) Minimum wages Act. 1948 (Amended).
- ii) The Contract Labour (Regulation & Abolition) Act, 1970 with Rules framed there under as amended.
- iii) Workmen Compensation Act. 1923 as amended by Amendment Act No. 65 of 1976.
- iv) Employer's Liability Act 1938 (Amended) vi)Maternity Benefit Act. 1961 (Amended)
- v) The Industrial Employment (Standing orders) Act 1946 (Amended).
- vi) The Industrial Disputes Act. 1947 (Amended)
- vii) Payment of bonus Act.1965 and Amended Act No. 43 of 1977 and No. 48 of 1978 and any amended thereof:
- viii) The Personal Injuries (Compensation Insurance) Act 1963 and any modifications thereof and rules made there under from time to time. The Consultant shall take into account all the above and financial liabilities in his quoted rates and nothing extra, whatsoever, shall be payable to him on this account.

20.6 The Consultant shall be liable to pay his contribution and the employees contribution to the State Insurance Scheme in respect of all labour employed by him for the execution of the contract, in accordance with the provision of "the Employees State insurance Act 1948" as amended from time to time. The Consultant agrees to indemnify and hold the owner harmless from any liability or penalty which may be imposed by any central or state Authority and also of any claims, suits or proceedings that may be brought against the Authority arising under, growing out of or by reasons of work proved by this contract whether brought by employees of the Consultant, by third parties or by Central or State Authority or any political sub division thereof. In case the Consultant fails to submit full details of his account of labour employed and the contribution payable the Engineer-in- Charge shall recover from the running bills of the contribution an amount of contribution as assessed by him. The amount so recovered shall be adjusted against the actual contribution payable for Employees State Insurance.

20.7 The Engineer-in-Charge shall on a report having been made by an inspecting officer as defined in the Contract Labour (Regulation and Abolition) Act and Rules or on his own in his capacity as Principal Employer, have the power to deduct from the amount due to the Consultant any sum required on estimated to be required for making good the loss suffered by worker(s) by reason of non-fulfilment of the

conditions of the Contract for the benefit of Workers, non-payment of wages or of deduction made from him for wages which are not justified by the terms of the contract or non-observance of the said Act and Rules framed there under with amendments made from time to time.

- 20.8 The Consultant shall indemnify the IWAI against any payments to be made under and for observance of the Regulation Laws, Rules as stipulated in Clause-20.5 above without prejudice to his right to claim indemnity from his sub-Consultants. In the event of the Consultant's failure to comply with the provisions of all the Act/Laws stipulated in Clause-20.5 or in the event of decree or award or order against the Consultant having been received from the competent authority on account of any default or breach or in connection with any of the provisions of the Act/Law/Rules mentioned in Sub-Clause 20.5 above, the Engineer-in-Charge without prejudice to any other right or remedy under the contract shall be empowered to deduct such sum or sums from the Bill of the Consultant or from his security deposit or from other payment due under this contract or any other contract to satisfy within a reasonable time the provisions of the various Act/Laws/Rules/Codes as mentioned under Sub-Clause 20.5 above, on the part of the Consultant under the contract on behalf of and at the expenses of the Consultant and make payment and /or provide amenities/facilities/services accordingly. In this regard, the decision of the Engineer-in-Charge shall be conclusive and binding on the Consultant.
- 20.9 In the event or the Consultant committing a default or breach of any of the provisions of the aforesaid Contract's Labour (Regulation and Abolition) Act and Rules as amended from time to time or furnishing any information or submitting or filling any form/Register/Slip under the provisions of these Regulations which is materially incorrect then on the report of the Inspecting officer as defined in the relevant Acts and Rules as referred in Clause 20.5 above, the Consultant shall without prejudice to any other liability pay to the IWAI a sum not exceeding Rs.50/- (Rs. fifty only) as liquidated damages for every default, breach or furnishing, making, submitting, filling materially incorrect statement as may be fixed by the Engineer-in-Charge. The decision of the Engineer-in-Charge in this respect shall be final & binding.
- 20.10 The Consultant shall at his own expenses Comply with or cause to be complied with the Provisions/ Rules provided for welfare and health of Contract Labour in the Contract Labour (Regulation and Abolition) Act and other relevant Acts and Rules framed there under or any other instructions issued by the IWAI in this regard for the protection of health and for making sanitary arrangements for workers employed directly or indirectly on the works. In case, the Consultant fails to make arrangements as aforesaid, the Engineer-in-Charge shall be entitled to do so and recover the cost thereof from the Consultant.
- 20.11 The Consultant shall at his own expense arrange for the safety or as required by the Engineer-in-Charge, in respect of all labour directly or indirectly employed for

performance of the Works and shall provide all facilities in connection therewith. In case the Consultant fails to make arrangements and provide necessary facilities as aforesaid, the Engineer-in- Charge shall be entitled to do so and recover the cost thereof from the Consultant. But this will not absolve the Consultant of his responsibility or otherwise thereof.

20.12 Failure to comply with "Provisions/Rules made for Welfare and Health of Contract Labour" Safety Manual, or the provisions relating to report on accidents and grant of maternity benefits to female workers and the relevant Act/Rules referred in clause 20.5 above shall make the Consultant liable to pay to the IWAI as liquidated damages an amount not exceeding Rs. 50/- for each default or materially incorrect statement. The decision of the Engineer-in-Charge in such matters based on reports from the inspecting Officers as defined in the relevant Acts and Rules as referred in clause 20.5 above shall be final and binding and deductions for recovery of such liquidated damages may be made from any amount payable to the Consultant. In the event of any injury, disability or death of any workmen in or about the work employed by the Consultant either directly or through his sub-Consultant, Consultant shall at all time indemnify and save harmless the IWAI against all claims, damages and compensation under the Workmen Compensation Act. 1923 as amended from time to time or in other Law for the time being in force and Rules there-under from time to time and also against all costs, charges and expenses of any smooth action by proceedings arising out of such accidents or injury, disability or death of a workmen and against all sum or sums which may with the consent of the Consultant be paid to compromise or compound any claim in this regard. If any award, decree or order is passed against the Consultant for recovery of any compensation under the Workmen Compensation Act, 1923, for any injury, disability or death of a workman by any competent court, the said sum or sums shall be deducted by the Engineer-in-Charge from any sum then due or that may become due to the Consultant or from his security deposit or sale thereof in full or part under the contract or any other contract with the IWAI towards fulfilment of the said decree, award or orders.

20.13 Provided always that the Consultant shall have no right to claim payments/claims whatsoever on account of his compliance with his obligations under this clause and Labour Regulation.

CLAUSE – 21: FORCE MAJEURE

21.1 The term Force Majeure shall herein mean Riots, Civil Commotion, War, Invasion, Act of foreign enemies, hostility, civil war, rebellion, revolution, insurrection, military or usurped power, damage from aircraft, nuclear fission, acts of God, such as earthquake, lightning, unprecedented floods, fire and other such causes over which the Consultant has no control. In the event of either party being rendered unable by Force Majeure to perform any obligation required to be performed by them under this contract, the relative obligation of the party affected by such Force

Majeure shall be treated as suspended for the period during which such cause lasts, provided the party allowing that it has been rendered unable as aforesaid, thereby shall notify within 15 days of the alleged beginning and ending thereof giving full particulars and satisfactory evidence in support of such cause.

- 21.2 For delays arising out of Force Majeure, the bidder shall not claim extension in completion date for a period exceeding the period of delay attributable to the causes of Force Majeure and neither the IWAI nor the bidder shall be liable to pay extra costs provided it is mutually established that Force Majeure conditions did actually exist.
- 21.3 If any of the Force Majeure conditions exists in the places of operation of the bidder even at the time of submission bid, he shall categorically specify in his bid and state whether they have been taken into consideration in their quotations.

CLAUSE - 22: LIABILITY FOR DAMAGE, DEFECTS OR IMPERFECTIONS AND RECTIFICATION THEREOF

- 22.1 If the Consultant or his labour or sub-Consultant, injure destroy or damage, IWAI, State or any public property in the area in which they may be working or in the area contiguous to the premises on which the work or any part of it is being executed or if any damage is caused during the progress of work, the Consultant shall up to receipt of a notice in writing in that behalf from the Engineer-in-Charge, make the same good at his cost.
- 22.2 If it appears to the Engineer-in-Charge or his representative at any time during to or prior to the expiration of the Defects Liability period that any work has been executed with unsound, imperfect or unskilled workmanship or that any chart/report or articles provided by the Consultant for execution of the work are unsound or of a quality inferior to that contracted for, or otherwise not in accordance with the Contract, or that any defect, shrinkage or other faults found in the work arising out of defective or improper materials or workmanship, the Consultant shall, upon receipt of a notice in writing in that behalf from the Engineer-in-Charge forthwith rectify or remove and reconstruct the work so specified in whole or in part, as the case may be, and/or remove the equipment/articles so specified and provide other proper and suitable equipment at his expense.
- 22.3 All damages caused by accidents or carelessness of the Consultant or any of his employees or any property belonging to the IWAI is wasted or is misused by the Consultant or any of his employee shall be to the account of the Consultant, who shall make good the loss.

CLAUSE – 23: CONSULTANT'S LIABILITY AND INSURANCE

- 23.1 From commencement to completion of the work(s) as a whole, the Consultant shall take full responsibility for the care thereof and for taking precautions to prevent loss or

damage. He shall be liable for any damage or loss that may happen to the works or any part thereof and to the IWAI's Plant, Equipment and Material (hired or issued to the Consultant) shall be in good order and condition and in conformity in every respect with the requirements of the Contract and instructions of the Engineer-in-Charge.

- 23.2 i) Neither party to the contract shall be liable to the other in respect of any loss or damage which may occur or arise out of "Force Majeure" to the works or any part thereof on to any material or article at site but not incorporated in the works or to any person or anything or material whatsoever or either party provided such a loss or damage could not have been foreseen or avoided by a prudent person and the either party shall bear losses and damages in respect of their respective men and materials. As such liability of either party shall include claims/ compensations of the third party also.
- ii) Provided, however, in an eventuality as mentioned in sub-clause - 23.2 (i) above, the following provisions shall also have effect :
- (a) The Consultant shall, as may be directed in writing by the Engineer-in-Charge proceed with the completion of the works under and in accordance with the provisions and conditions of the contract, and
 - (b) The Consultant shall, as may be directed in writing by the Engineer-in-charge, re-execute the works lost or damaged. The cost of such re-execution of the works, removal of damaged works and carrying of IWAI's store shall be ascertained in the same manner as for deviations and this shall be added to the contract sum. Provided always that the Consultant shall, at his own cost, repair and make good so much of the loss or damage as has been occasioned by any failure on his part to perform his obligations under the contract or not taking precautions to prevent loss or damage or minimise the amount of such loss or damage, Final assessment of loss or damage shall be decided by the Engineer-in-Charge and his decision shall be final and binding.

23.3 Before commencing of the work, the Consultant shall without in any way limiting his obligations and responsibilities under this condition, insure all survey personnel and equipment which are to be deployed for this work, against any type of accident.

23.4 **Professional Liabilities:**

The Consultant is expected to carry out its assignment with due diligence and in accordance with prevailing standards of the profession. As the consultant's liability to the employer will be governed by the applicable law, the contract need not deal with

this matter unless the parties wish to limit this liability. If they do so, they should ensure that (a) there must be no such limitation in case of the consultant's gross negligence or wilful misconduct; (b) the consultant's liability to the employer may in no case be limited to less than the total payments expected to be made under the consultant's contract, or the proceeds the consultant is entitled to receive under its insurance, whichever is higher; and any such limitation may deal only with the consultant's liability toward the employer and not with the consultant's liability toward third parties.

CLAUSE – 24: SUSPENSION OF WORKS

24.1 The Consultant shall on the order of the Engineer-in-Charge suspend the progress of the works or any part thereof for such time or times and in such manner as the Engineer-in-Charge may consider necessary and shall during such suspension properly protect and secure the work so far as is necessary in the opinion of the Engineer-in-Charge.

CLAUSE – 25: FORECLOSURE OF CONTRACT IN FULL OR IN PART DUE TO ABANDONMENT OR REDUCTION IN SCOPE OF WORK

If at any time after acceptance of the tender the IWAI decides to abandon or reduce the scope of the works for reason whatsoever or suspends progress of work and hence does not require the whole or any part of the works to be carried out, the Engineer-in-Charge shall give notice in writing to that effect to the Consultant and the Consultant shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the works in full but which he could not derive in consequence of the fore closure of the whole or part of the works.

CLAUSE – 26: TERMINATION OF CONTRACT ON DEATH

If the Consultant is an individual or a proprietary concern and the individual or the proprietor dies, or if the Consultant is a partnership concern and one of the partners dies, then, unless the Engineer-in-Charge is satisfied that the legal representatives of the individual Consultant or of the proprietor of the proprietary concern and in the case of partnership, the surviving partners are capable of carrying out and completing the contract, the Engineer-in-Charge shall be entitled to terminate the Contract as to its incomplete part without the IWAI being in anyway liable to payment of any compensation whatsoever on any account to the estate of the deceased Consultant and/or to the surviving partners of the Consultant's firm on account of termination of the Contract. The decision of the Engineer-in-Charge that the legal representatives of the deceased Consultant or the surviving partners of the Consultant's firm cannot carry out and complete the works under the contract shall be final and binding on the parties. In the event of such termination, the IWAI shall not hold the estate of the

deceased Consultant and/or the surviving partners of the Consultant's firm liable for damages for not completing the contract. Provided that the power of the Engineer-in-Charge of such termination of contract shall be without prejudice to any other right or remedy which shall have accrued or shall accrue to him under the contract.

CLAUSE– 27: TERMINATION OF CONTRACT IN FULL OR IN PART

27.1 If the Consultant does not commence the work in the manner described in the Contract document or if he shall at any time in the opinion of the engineer.

- (i) commits default in complying with or commits breach of any of the terms and conditions of the contract and does not remedy it or take effective steps to remedy it immediately and not later than 15 days in any case after a notice in writing is given to him in that behalf by the Engineer-in-Charge; or
- (ii) fails to complete the work (s) or any item of work (s) within the time or any extended time under the contract and does not complete the work (s) or any item of works within the period specified in a notice given in writing in that behalf by the Engineer-in-Charge ; or
- (iii) fails to commence, carry and execute the work to the satisfaction of the EIC, or
- (iv) Abandon the work, or
- (v) Substantially suspend the work or the works for a minimum period of 30 days without any authority/ prior permission of EIC, or
- (vi) assigns, transfers, sublets (engagement of labour on a piece-work basis or of labour with equipment not being incorporated in the work shall not be deemed to be subletting) or attempts to assign, transfer or sublet the entire works or any portion thereof without the prior written approval of the Engineer-in-Charge. The Engineer-in-Charge shall have powers to terminate the contract in full or in part as aforesaid without prejudice to any other right or remedy which shall have accrued or shall accrue of which cancellation notice in writing to the Consultant under the hand of the Engineer-in-Charge shall be conclusive evidence.

Then the IWAI shall have the power to enter upon the work and take possession of all the equipment of the Consultant thereon, and to remove the Consultant's license to the same and to complete the work by his agents or other Consultant or workmen or to relate the same upon any terms and conditions and so such other person, firm or corporation as the owner in his absolute discretion may think proper to employ and for the purpose of completion of the work specified in the contract, and without any payment/allowance to the Consultant for the use of the equipment or being liable for any loss or damage thereto the equipment. If the IWAI shall by reason of its taking the

possession of the works being completed by other Consultants (due account being taken of such extra work or works which may be omitted) then the amount of such excess work or works which may be due for work done by the Consultant under the contract and not paid for.

In case of any deficiency to be paid to the IWAI by the Consultant, the Consultant shall make or in case of any deficiency remaining unsettled then the IWAI shall have the power to sell in such a manner and for such a price as it may think fit all or any of the equipment belonging to the Consultant and to recoup and retain the said deficiency or any part thereof out of the sale proceeds.

27.2 CORRUPT PRACTICE

The Consultant shall not offer or to give to any person in the employment of the IWAI or working under the orders of the Chairman any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of the contract or any other contract with the purchaser or for showing or forbearing to show favour or disfavour to any person in relation to the contract or any other contract with the purchaser. Any breach of the aforesaid condition by the contract, or any one employed, by him or acting on his behalf (whether with or without the knowledge of the Consultant) or the commission of any offence by the Consultant or by any one employed by him or acting on his behalf under Chapter IX of the Indian Penal code 1860 or the Prevention of Corruption Act. 1947 or any other Act enacted for the prevention of corruption by Public Servant shall entitle the Chairman to cancel the contract and all or any other contracts with the Consultant and to recover from the Consultant the amount of any loss arising from such cancellation in accordance with the provisions of General condition and Special conditions.

- 27.3 If the expenses incurred or to be incurred by the IWAI for carrying out and completing the incomplete work or part of the same, as certified by the Engineer-in-Charge, are in excess of the value of the work credited / to be credited to the Consultant, the difference shall be paid by the Consultant to the IWAI. If the Consultant fails to pay such an amount, as aforesaid, within thirty days of receipt of notice in writing from the Engineer-in-Charge, the Engineer-in-Charge shall be empowered to recover such amount from any sum due to the Consultant on any account under this or any other contract or from his security deposit or otherwise.
- 27.4 IWAI also reserves its right to determine/ terminate the contract on following basis:
(i) IWAI shall, at any time, be entitled to determine and terminate the contract, for any cause whatsoever. A notice in writing from the Owner to the Consultant shall be issued giving 15 (fifteen) days time for such determination and termination including the reason thereof.

- (ii) Should the contract be determined under the sub-clause (i) of the said clause, the Consultant shall be paid compensation, equitable and reasonable dictated by the circumstances prevalent at the time of termination.”

CLAUSE - 28: COMPLETION TIME, EXTENSIONS

- 28.1 Time allowed for execution of the work as specified or the extended time, if any, in accordance with these conditions shall be binding in the contract.
- 28.2 However, if the work is delayed on account of:
- i) Increase in the quantity of work to be done under the contract as per clause 14, or
 - ii) Suspension of work as per clause 24; or
 - iii) "Force Majeure" as per clause 21; or
 - iv) Any other cause which, in absolute discretion of the Engineer-in- Charge is beyond the Consultant's control; then immediately upon the happening of any such events as aforesaid, the Consultant shall inform the Engineer-in-Charge accordingly, but the Consultant shall nevertheless use constantly his best endeavours to prevent and/or make good the delay and shall do all that may be required in this regard. The Consultant shall also request, in writing, for extension of time, to which he may consider himself eligible under the contract, within fourteen days of the date of happening of any such events as indicated above.
- 28.3 In any such case as may have arisen due to any of the events, as aforesaid, and which may have been brought out by the Consultant in writing, the Engineer-in-Charge may give a fair and reasonable extension of time, after taking into consideration the nature of the work delayed and practicability of its execution during the period of extension. Provided in the event of non-receipt of a request for such extensions from the Consultant for reasons whatsoever, the Engineer-in-Charge may, at his sole discretion and with due regard to the event, grant fair and reasonable extension of time not more than 1/3rd of the total completion period without any financial implication. Such extensions, if admissible, shall be communicated to the Consultant by the Engineer-in-Charge in writing within one month of the date of receipt of such request or within one month of the occurrence of the event, but in any case before expiry of the contract period.

If the Supplier is unable to deliver the Goods or supply the Services (or any part of them) when required by the Contract (or where no time is specified, within a reasonable time), the Supplier will immediately inform the EIC; 4.2 If the Goods are not delivered or the Services are not supplied (or any part of them) by the time or times

set out in the Contract (or where no such time is specified, within a reasonable time; the EIC may cancel the Contract immediately by giving the Supplier notice in writing. The EIC may have the Goods/Services supplied by a reasonable alternative supplier. The Supplier will be liable for any loss, damage or expense incurred by IWAI (whether direct or indirect) as a result of any failure to deliver or supply in accordance with the Contract. This Clause will not affect any other rights that IWAI may have under this Contract or otherwise.

CLAUSE – 29: COMPENSATION FOR DELAY

- 29.1 If the Consultant fails to complete all items of works in respect of any of the sub-group/group and/or work as a whole as the case may be and before the expiry of the period(s) of completion as stipulated in the aforesaid tender or any extended period (not due to the fault of the Consultant) as may be allowed, he shall without prejudice to any other right or remedy of the Authority on account of such default, pay as an ascertained/agreed compensation as per Clause No. 30.

CLAUSE – 30: LIQUIDATED DAMAGES

- 30.1 If the Consultant fails to complete all items of works within the period(s) of completion as stipulated in the aforesaid tender or any extended period (not due to the fault of the Consultant) as may be agreed, he shall without prejudice to any other right or remedy of the Authority on account of such default, pay compensation (not by way of penalty) at the rate of $\frac{1}{2}$ % (half percent) per week or part of the week on the total value of the contract, subject to a maximum of 10% of the total value of the contract.
- 30.2 Should however, the Consultant achieve the completion of the entire works as a whole under the contract within the time or in the extended time (not due to reasons of default on the part of the Consultant) as may be accorded, the IWAI will refund to him the amount of compensation recovered from him, if any, in respect of delay in the non-completion of works(s) under the individual group/sub-group, as aforesaid in full, In this regard, the decision of the Engineer-in-Charge shall be final and binding.
- 30.3 The amount of compensation may be adjusted, withheld, deducted or set off against any sum due or payable to the Consultant under this or any other contract with the IWAI.
- 30.4 All sums payable by way of compensation under any of the conditions will be considered as reasonable compensation without reference to the actual loss or damage which will have been sustained.
- 30.5 Payment of such damages shall not relieve the Consultant of his obligation to complete the work or from any other of his obligation or liabilities under the contract.

CLAUSE – 31: INSPECTION AND APPROVAL

- 31.1 All works involving more than one process shall be subject to examination and approval at each stage thereof and the Consultant shall give due notice to the Engineer-in-Charge or his authorized representative, when each stage is ready. In default of such notice, the Engineer-in-Charge shall be entitled to appraise the quality and extent thereof and the decision of the Engineer-in-Charge in this regard shall be final and binding.
- 31.2 No work shall be put out of view without the approval of the Engineer-in-Charge or his authorized representative and the Consultant shall afford full opportunity for examination. The Consultant shall give due notice to the Engineer-in-Charge or his authorized representative whenever any such work is ready for examination and the Engineer-in-Charge or his representative shall, without unreasonable delay, unless he considers it necessary and advise the Consultant accordingly, examine and measure such work. In the event of the failure of the Consultant to give such notice, he shall if required by the Engineer-in-Charge, uncover such work at the Consultant's expenses.
- 31.3 Periodic inspection will be carried out by the EIC or his representative by suitable means. The Consultant can have the inspection schedules finalized with the Engineer-in-charge. Generally all attempts should be made to have joint inspection and number of inspections be not less than three.

CLAUSE – 32: COMPLETION CERTIFICATE

- 32.1 The work shall be completed to the entire satisfaction of the Engineer-in-Charge and within the specified time limit and terms and conditions of the contract. As soon as the work under the Consultant is completed as a whole the Consultant shall give notice of such completion to the Engineer-in-Charge. The Engineer-in-Charge shall inspect the work and shall satisfy himself that the work(s) has been completed in accordance with the provisions of the contract and then issue to the Consultant a certificate of completion indicating the date of completion. Should the Engineer-in-Charge notice that there are defects in the works or the works are not considered to be complete, he shall issue a notice in writing to the Consultant to rectify / replace the defective work or any part thereof or complete the work, as the case may be within such time as may be notified and after the Consultant has complied with as aforesaid and gives notice of completion the Engineer-in-Charge shall inspect the work and issue the completion certificate in the same manner as aforesaid.
- 32.2 No certificate of completion shall be issued as stipulated above and no work be considered to be completed unless the Consultant completed all the works as per satisfaction of the Engineer-in-Charge.

CLAUSE - 33: MEASUREMENTS

- 33.1 The Engineer-in-charge shall expect as otherwise stated ascertain and determine by measurement the value of work done in accordance with the contract.
- 33.2 Notwithstanding any provision in the relevant standard method of measurement or any general or local custom, measurement of work done under the contract shall be taken in accordance with the procedure set forth in the Technical Specifications or Schedule of Quantities under the contract. In case of items of work which are not covered by the Technical Specifications or Schedule of Quantities measurement shall be taken in accordance with the relevant standard methods of measurement laid down by the Bureau of Indian Standard.
- 33.3 Submission of complete data (raw, edited, sorted, charts, field data) shall be submitted by the Consultant in time or as directed by the E-I-C.

CLAUSE – 34: PAYMENT ON ACCOUNT

- 34.1 The Consultant shall receive, as fee for all services and expenses required in the following instalments:

Payment stages	Item	Payment as %
1	On submission of Draft Technical Economic & Financial Feasibility Report and presentation of report to authority	45% of Contract value
2	On submission of Final Technical Economic & Financial Feasibility Report	45% of Contract value
3	On acceptance of final report	10% of Contract value

- 34.2 **The Service Tax would be release, subject to condition that Consultant submits the proof of deposit of the same.**
- 34.3 Payment of the Consultant's bills shall be made by the IWAI only in Indian Rupees within 30 days from the date of submission of the bill subject to the acceptance of the Engineer-in- Charge.
- 34.4 Payments due to the Consultant shall be made by crossed cheque / RTGS by the Engineer-in-Charge or his authorized representative. Such cheques/ RTGS shall be issued direct to the Consultant on furnishing a stamped receipt for the amount of the cheque or to his constituted attorney duly authorized to receive such payments from the EIC.
- 34.5 Should there be a request for extension of date of completion, pending its consideration interim payments shall continue to be made as provided herein.

34.6 TDS at the applicable rates shall be deducted at source from any payment made to the Consultant against this contract.

CLAUSE – 35: TAXES, DUTIES AND LEVIES ETC.

35.1 The prices quoted shall mention all the taxes, levies, cess, octroi, excise, service tax or any other local or central taxes as applicable/ charged by Center or State Government on all works, including POL (and increase if any, on these during the currency of the contract) that the Consultant has to purchase for the performance of the contract, shall be payable by the Consultant and the IWAI will not entertain any claim for compensation whatsoever in this regard.

CLAUSE- 36: TAX DEDUCTION AT SOURCE

36.1 TDS at the applicable rate as per Income Tax Act/Rules shall be deducted from all the payment/advances made against the contract.

CLAUSE – 37: PAYMENT OF FINAL BILL

The final bill shall be submitted by the Consultant within one month from the date of completion of the work or of the date the certificate of completion furnished by the Engineer-in-Charge. No further claim in this regard unless as specified herein under shall be entertained. Payment shall be made within three months. If there shall be any dispute about any item or items of the work then the undisputed item or items only shall be paid within the said period of three months or six months, as the case may be. The Consultant shall submit a list of the disputed items within thirty days from the disallowance thereof and if he fails to do so, his claim shall be deemed to have been fully waived and absolutely extinguished.

CLAUSE - 38: OVER PAYMENTS AND UNDER PAYMENTS

38.1 Whenever any claim whatsoever for the payments of a sum of money to the IWAI arises out of or under this contract against the Consultant, the same may be deducted by the IWAI from any sum then due or which at anytime thereafter may become due to the Consultant under this contract and failing that under any other contract with the IWAI or from any other sum whatsoever due to the Consultant from the IWAI or from the IWAI or from his security deposit, or he shall pay the claim on demand.

38.2 The IWAI reserves the right to carry out post- payment audit and technical examination of the final bill including all supporting vouchers, abstracts, etc. The IWAI further reserves the right to enforce recovery of any over payment when detected notwithstanding the fact that the amount of the final bill may be included by one of the parties as an item of dispute before an arbitrator appointed under

clause 41 of this contract and notwithstanding the fact that the amount of the final bill figures in the arbitration award.

- 38.3 If as a result of such audit and technical examination any over payment is discovered in respect of any work done by the Consultant or alleged to have been done by him under contract, it shall be recovered by the IWAI from the Consultant by any of all of the methods prescribed above, and if any under payment is discovered, the amount shall be duly paid to the Consultant by the IWAI.
- 38.4 Provided that the aforesaid right of the IWAI to adjust over-payment against amount due to the Consultant under any other contract with the IWAI shall not extend beyond the period of two years from the date of payment of the final bill or in case the final bill is a MINUS bill, from the date the amount payable by the Consultant under the MINUS final bill is communicated to the Consultant.
- 38.5 Any sum of money due and payable to the Consultant (including the security deposit returnable to him) under the contract may be withheld or retained by way of lien by the Engineer-in-Charge or IWAI against any claim of the IWAI or such other person or persons in respect of payment of a sum of money arising out of or under any other contract made by the Consultant with the Engineer-in-Charge or IWAI or with such other person or persons. The sum of money so withheld or retained under this clause by the Engineer-in-Charge or IWAI will be kept withheld or retained as such by the Engineer-in-Charge or IWAI or till his claim arising out of in the same contract or any other contract is either mutually settled or determined by the arbitrator, if the contract is governed by the arbitration clause under the clause 48 or by the competent court hereinafter provided, as the case may be, and the Consultant shall have no claim for interest or damages whatsoever on this account or any other ground in respect of any sum of money withheld or retained under this clause.

CLAUSE - 39: CONTRACT MATTERS TO BE TREATED AS CONFIDENTIAL

- 39.1 All documents, correspondence, decisions and orders concerning the contract shall be considered as confidential and/or restricted in nature by the Consultant and he shall not divulge or allow access to them by any un-authorized person.
- 39.2 The Consultant shall take necessary steps to ensure that all persons employed on any work in connection with this contract have noted that the Indian Official Secrets Act, 1923 (XIX of 1923) applies to them and shall continue so to apply even after the execution of such under the contract.

CLAUSE – 40: SUM PAYABLE BY WAY OF COMPENSATION TO BE CONSIDERED IS REASONABLE WITHOUT PREFERENCE TO ACTUAL LOSS

All sum payable by way of compensation to the IWAI under any of these conditions shall be considered as reasonable compensation without reference to the actual loss or damage sustained and whether or not damage shall have been sustained.

CLAUSE – 41: SETTLEMENT OF DISPUTES & ARBITRATION

- 41.1 Except where otherwise provided in the contract, all questions and disputes relating to the meaning of the specifications, design, drawings and instructions here-in-before mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, design, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the works or the execution or failure to execute the same whether arising during the progress of the work or after the cancellation, termination, completion or abandonment thereof shall be dealt with as mentioned hereinafter:
- (i) If the Consultant considers any work demanded of him to be outside the requirements of the contract, or disputes any drawings, record or decision given in writing by the Engineer-in-Charge on any matter in connection with or arising out of the contract or carrying out of the work, to be unacceptable, he shall promptly within 15 days of the receipt of decision from the Engineer-in-Charge request the Competent Authority at IWAI in writing through the Engineer-in-Charge for written instruction or decision. Thereupon, the EIC shall communicate in writing decision of the Competent Authority at IWAI within a period of one month from the receipt of the Consultant's letter. However, this will not be reason for the stoppage of work.
 - (ii) If the Competent Authority at IWAI fails to give instructions or decision in writing within the aforesaid period or if the Consultant is dissatisfied with the instruction or decision of the Authority at IWAI, the Consultant may, within 15 days of the receipt of Competent Authority at IWAI's decision, appeal to the Chairman, IWAI who shall afford an opportunity to the Consultant to be heard, if the latter so desires, and to offer evidence in support of his appeal. The Chairman, IWAI shall give his decision within 30 days of receipt of Consultant's appeal. If the Consultant is still dissatisfied with his decision, the Consultant shall within a period of 30 days from receipt of the decision, give notice to the Chairman, IWAI for appointment of arbitrator on prescribed proforma as per Appendix III, failing which the said decision shall be final binding and conclusive and not referable to adjudication by the arbitrator.
- 41.2 Except where the decision has become final, binding and conclusive in terms of Sub Para 41.1 above, disputes or differences shall be referred for adjudication through arbitration by a sole arbitrator appointed by Chairman, IWAI.
- 41.3 Further, within thirty (30) days of receipt of such notice from either party, the Engineer-in-Charge of work at the time of such dispute shall send to the Consultant a panel of three persons preferably but not necessarily from the approved panel of arbitrators being maintained by Indian Council of Arbitration (ICA) and thereafter the

Consultant within fifteen (15) days of receipt of such panel communicate to the Engineer-in-charge the name of one of the persons from such panel and such a person shall then be appointed as sole arbitrator by the Chairman, IWAI. However, the arbitrator so appointed shall not be an officer or the employee of Inland Waterways Authority of India.

Provided that if the Consultant fails to communicate the selection of a name out of the panel so forwarded to him by the Engineer-in-charge then after the expiry of the aforesaid stipulated period the Chairman, shall without delay select one person from the aforesaid panel and appoint him as the sole arbitrator.

- 41.4 The arbitrator to whom the matter is originally referred being transferred or vacating his office or being unable to act for any reason, then the Chairman IWAI shall appoint another person to act as sole arbitrator, such person shall be entitled to proceed with the reference from the stage at which it was left by the predecessor.
- 41.5 The award of the Arbitrator shall be final and binding. The Arbitrator shall decide in what proportion the Arbitrator's fees, as well as the cost of Arbitration proceeding shall be borne by either party.
- 41.6 The Arbitrator with the consent of the parties can enlarge the time, from, time-to-time to make and publish his award.
- 41.7 A notice of the existence in question, dispute or difference in connection with the contract unless served by either party within 30 days of the expiry of the defects liability period, failing which all rights and claim under this contract shall be deemed to have been waived and thus forfeited and absolutely barred.
- 41.8 The Arbitrator shall give reasons for the award if the amount of claim in dispute is Rs. 1,00,000/- and above.
- 41.9 The work under this Contract shall continue during Arbitration proceedings and no payments due from or payment by the Authority shall be withheld on account of such proceedings except to the extent which may be in dispute.
- 41.10 The Arbitration and Conciliation Act 1996 with any statutory modifications or re-enactment thereof and the rules made there under and being in force shall apply to the Arbitration proceedings under this clause.
- 41.11 The parties to the agreement hereby undertake to have recourse only to arbitration proceedings under for Arbitration Act 1996 and the venue of the arbitration proceeding shall be Noida/ New Delhi and the parties will not have recourse to Civil Court to settle any of their disputes arising out of this agreement except through arbitration.

NOTE: In case of contract with another Public Sector Undertaking, following Arbitration Clause shall apply: "Except as otherwise provided, in case of a contract with a public Sector Undertaking if at any time any question dispute or difference whatsoever arises between the parties upon or in relation to, or in connection with this agreement, the same shall be settled in terms of the Ministry of Industry, Department of Public

Enterprises O.M No. 3/5/93-PMA dt.30.06.93 or any modifications / amendments thereof. "The arbitrator shall have the power to enlarge the term to publish the award with the consent of the parties provided always that the commencement or continuation of the arbitration proceeding shall not result in cessation or suspension of any of other rights and obligations of the parties of any payments due to them hereunder.

CLAUSE – 42: VALIDITY OF TERMS & CONDITIONS

42.1 The parties agree that if any term or provision of this contract is declared by a Court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be effected and the right and obligations of the parties shall be construed and enforced as if this contract did not contain the particular term or provision held to be invalid.

CLAUSE – 43: DEFECT LIABILITY PERIOD

43.1 Defect Liability period will be till clearance of final bill after recovering all losses, damages etc.

CLAUSE – 44: WHEN THE CONTRACT CAN BE DETERMINED

44.1 Subject to other provisions contained in this clause, the Engineer-in-Charge may, without prejudice to his any other rights or remedy against the Consultant in respect of any delay, inferior workmanship, any claims for damages and/or any other provisions of this contract or otherwise, and whether the date of completion has or has not elapsed, by notice in writing absolutely determine the contract in any of the following cases:

- (i) If the Consultant having been given by the Engineer-in-Charge a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper manner shall omit to comply with the requirement of such notice for a period of seven days thereafter.
- (ii) If the Consultant has, without reasonable cause, suspended the progress of the work or has failed to proceed with the work with due diligence so that in the opinion of the Engineer-in-Charge he will be unable to secure completion of the work by the date for completion and continues to do so after a notice in writing of seven days from the Engineer-in-Charge.
- (iii) If the Consultant fails to complete the work within the stipulated date or items of work with individual date of completion, if any stipulated, on or before such date(s) of completion and does not complete them within the period specified in a notice given in writing in that behalf by the Engineer-in-Charge.
- (iv) If the Consultant persistently neglects to carry out his obligations under the contract and/ or commits default in complying with any of the terms and conditions of the

contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Engineer-in-Charge.

- (v) If the Consultant shall offer or give or agree to give to any person in IWAI service or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of contract.
- (vi) If the Consultant shall enter into a contract with IWAI in connection with which commission has been paid or agreed to be paid by him or to his knowledge, unless the particulars of any such commission and the terms of payment thereof have been previously disclosed in writing to the Engineer-in-Charge.
- (vii) If the Consultant shall obtain a contract with IWAI as a result of wrong tendering or other non-bonafide methods of competitive tendering or commits breach of integrity pact.
- (viii) If the Consultant being an individual, or if a firm, any partner thereof shall at any time be adjudged insolvent or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for the purpose of amalgamation or reconstruction) under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors or purport so to do, or if any application be made under any Insolvency Act for the time being in force for the sequestration of his estate or if a trust deed be executed by him for benefit of his creditors.
- (ix) If the Consultant being a company shall pass a resolution or the court shall make an order that the company shall be wound up or if a receiver or a manager on behalf of a creditor shall be appointed or if circumstances shall arise which entitle the court or the creditor to appoint a receiver or a manager or which entitle the court to make a winding up order.
- (x) If the Consultant shall suffer an execution being levied on his goods and allow it to be continued for a period of 21 days.
- (xi) If the Consultant assigns, transfers, sublets (engagement of labour on a piece-work basis or of labour with materials not to be incorporated in the work, shall not be deemed to be subletting) or otherwise parts with or attempts to assign, transfer, sublet or otherwise parts with the entire works or any portion thereof without the prior written approval of the Engineer -in-Charge.

When the Consultant has made himself liable for action under any of the cases aforesaid, the Engineer-in-Charge on behalf of the IWAI with the approval of the competent authority mentioned in schedule 'B' shall have powers:

- (a) To determine the contract as aforesaid (of which termination notice in writing to the Consultant under the hand of the Engineer-in-Charge shall be conclusive evidence).

Upon such determination, the Earnest Money Deposit, Security Deposit already recovered and Performance Guarantee under the contract shall be liable to be forfeited and shall be absolutely at the disposal of the IWAI.

- (b) After giving notice to the Consultant to measure up the work of the Consultant and to take such whole, or the balance or part thereof, as shall be un-executed out of his hands and to give it to another Consultant to complete the work. The Consultant, whose contract is determined as above, shall not be allowed to participate in the tendering process for the balance work.

In the event of above courses being adopted by the Engineer-in-Charge, the Consultant shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of the contract. And in case action is taken under any of the provision aforesaid, the Consultant shall not be entitled to recover or be paid any sum for any work thereof or actually performed under this contract unless and until the Engineer-in-Charge has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.

SCHEDULE 'B': General Rules & Directions with reference to General Conditions of Contract: -

- (i) **Competent authority of grant extension of time under clause 28 of General condition of contract: -** Chairperson, IWAI.
- (ii) **Competent authority to levy liquidated damages for delay under clause 30 of General condition of contract: -** Chairperson, IWAI.
- (iii) **Competent Authority for first stage of Settlement of Disputes as per clause 41:** Member Technical, IWAI
- (iv) **Competent authority to determine the contract as per clause 44:-** Engineer-in-Charge with the prior approval of Chairperson, IWAI.
- (v) **Competent authority for foreclosure of contract in full or in part due to abandonment or reduction in scope of work as per clause 25:-** Engineer-in-Charge with the prior approval of Chairperson, IWAI.

Section 6

TERMS OF REFERENCE

1. BACKGROUND INFORMATION

1.1 Inland Waterways Authority

Inland Waterways Authority of India (IWAI), a statutory body set up in 1986 for the regulation and development of inland waterways for purposes of shipping and navigation and for matters connected therewith or incidental thereto.

1.2. Background

Government of India had tabled in the Parliament an Act for declaration of 111 rivers and canals as National Waterways. Feasibility Study and Detailed Project Reports were prepared for a number of waterways over last decade for purposes of navigation and inland water transport. On review and assessment of the past studies it has been evaluated that initially eight numbers of rivers have the potential to be developed into National Waterways for year round commercial navigation.

In order to develop the identified rivers and canals as National Waterways for round the year Inland Water Transportation the Authority is planning to outsource the Engineering, Procurement and Construction activity to Private parties. The work is planned to be awarded through an Engineering Procurement and Construction (EPC) Contract by Global Open Tender procedures of Government of India.

To float open Tender for awarding Engineering Procurement and Construction (EPC) Contract for development of the waterways and infrastructure thereon comprehensive studies of the Sunderbans Waterway in terms of technical, nautical, traffic, economic, social and financial requirements is to be undertaken. The study shall provide Technical Economic Feasibility Report for the Sunderbans waterway.

Thus the objective of the study is to carry out necessary survey including Hydrographic, Traffic Survey, investigation, analysis for development of Sunderbans waterways, terminals, vessels and on shore infrastructure and provide Technical Economic Feasibility (TEF) Study for the same.

This study needs to be comprehensive to achieve the main objective of floating an EPC tender for development of the waterways.

2. OBJECTIVE & PURPOSE

2.1. Overall objective

The overall objective of the study is to prepare a comprehensive BID Document for awarding EPC Contract to develop the Sunderbans waterway specified herein for greater economic benefits and increasing IWT hinterland connectivity. The study is to be conducted through two major

activities namely “Survey & Field Investigation”, “Comprehensive analysis for technical, economic and financial feasibility”.

2.2. Purpose

The purposes of this terms of reference is as follows:

- The Study shall review previous work and undertake the required survey, investigations and analysis of the technical, socio economic, traffic, institutional, legal and financial viability and sustainability of the Sunderbans waterways development and operation.
- The Study will provide and analyse optimal and realistic scenarios of development of the waterways for round the year navigation.
- The Study will provide IWAI with recommendations on measures to be undertaken in order to develop the Sunderbans waterways in an ecologically, environmentally, and economically sustainable manner.

The Study should lay down a foundation for the tender process of “EPC Contract for Waterway development works”.

3. DELIVERABLES

The main deliverables of the Study shall consist of following:

- a) Inception Report
- b) Draft Technical Economic & Financial Feasibility Report
- c) Presentation of Technical Economic & Financial Feasibility Report
- d) Final Technical Economic & Financial Feasibility Report

4 . SCOPE OF THE WORK

4.1. General

4.1.1. Description of the Assignment

4.1.1.1. Survey & Field Investigation

As part of the assignment, the Consultant should collate and review the existing studies and data and provide as part of their Inception Report. The Consultant should ensure that the Study takes into account respective upcoming development programs in the region. The Consultant shall carry out necessary surveys and investigation of the waterways under consideration for all relevant technical, operational, legal, economic, financial, aspects of the Project and to propose a detailed working concept for the operation and maintenance of the waterway and its ports and landing stations.

4.1.1.2. Components of the Study

Component 1. Transport economic and market analysis

Objective of the component

The main objective of this component is to assess the feasibility of the development of waterway that can contribute to an overall efficient IWT and multimodal transport system for the country. Hence the study should consider waterway mode that:

- is fully integrated with the existing modes, namely road, rail, waterways and sea transport;

- contributes to the reduction of both time and money elements of transport costs to users and hence cost of commodities to end consumers;
- improves the reliability of the transport system;
- Reduces the transport externalities such as accidents, and carbon emissions.

Activities of the component:

1) Market Analysis

a) Assessment of waterway potential future market capture

The forecasting of demand for the waterway mode should follow from the assessment of the baseline demand for transport in the region, and its current distribution between the various corridors and modes of transport. The study will produce forecasts of the future demand for freight transport between the main origins and destinations in the waterway hinterland region, for key commodities, including raw, intermediate and finished products. In this regard, the study shall produce an origin destination origin demand matrix per commodity, for the main commodities traded in the region, and for with and without project scenarios.

The matrices will be produced for the following horizons:

- baseline year 2016, or earlier years if data is not available;
- 2020
- 2030
- 2040
- 2050

The demand growth between the above horizons will need to take into consideration:

- background economic growth, translated in terms of growth in production and demand for commodities, both for the local, regional and national markets;
- induced growth in demand for commodities transport due to new investments along the waterway encouraged by the improved access to the transport system;
- Transferred traffic, from competing corridors and modes, to take advantage of the reduced cost, carbon pollution, time of travel along the waterway.

b) Demand Assignment to Corridors and Modal Share

The study shall then, for each horizon assign such demand between the various transport corridors and modes available, namely, waterway, road and rail. The assignment will be on the basis of transport generalised costs, including monetary and non-monetary costs (e.g. time saving, reliability, safety, emissions etc). Other considerations such as logistical (e.g. availability of storage facilities, etc) and non-logistical (special requirement of some commodities, e.g. perishable products), will have to be taken into account when identifying alternative routes and modes for the assignment.

c) Optimisation

The Consultant should then undertake a sensitivity analysis of the forecasts to derive an estimate of the optimal transport unit tariffs that future operators of the waterway should charge in order to optimise the project revenues. These transport tariffs should then be compared, using a Benchmark analysis, with the tariffs currently practiced:

- in other similar modes in the region;
- in competing corridors from the region;

The forecasts will be presented year on year, by interpolation between the above forecasting horizons, taking into consideration the ramp up effects. The forecasts will be detailed for both, the new waterway project, the competing modes and the feeder modes. The forecasts will also be broken down by commodity type. For the waterways, the Consultant will, depending on type of commodity and destination, propose an optimal logistical chain that is likely to be adopted by the trading clients and the freight forwarders which would include the type of flux (just in time or extensive use of warehousing) and containerised vs. bulk transport.

2) *Economic analysis*

Based on the traffic forecasts, the Consultant should undertake an economic assessment of the impacts of each project scenarios on the economies and population of the entire region (the project area of influence). The Consultant should undertake a quantitative assessment for the monetised impacts and a qualitative one for the wider economic impacts.

a) *Quantitative assessment (transport efficiency)*

The Consultant should undertake a Cost Benefit Analysis (CBA), taking into considerations at least the following monetised costs and benefits for each proposed scenario of the project:

1. Costs	2. Benefits
<p>1) project construction costs, irrespective of sources of funding, including the costs of land and environmental mitigation measures;</p> <p>2) Waterway operation and maintenance costs throughout the appraisal period.</p>	<p>1) time savings for both commodities using the waterway mode, as well as for the existing modes, due to reduced congestion on them;</p> <p>2) transport costs saving due to a more efficient transport system, including savings in road and rail maintenance costs;</p> <p>3) potential accidents and loss/damage of commodities' savings, savings from reduction of accidents on road and railway transportation;</p> <p>4) Environmental benefits.</p>

b) *Qualitative assessment (socio-economic impacts)*

The Consultant will in this section identify and appraise all socio-economic impacts of the project that are not easily quantifiable in monetary terms. This should include both impacts directly related to the project, as well as wider socio-economic impacts of the project. As part of the assignment the Consultant shall also propose complementary measures to the investments in waterway infrastructure that will play a catalytic role in the achievement of the countries development objectives: access to energy, communication, tourism, health and education services.

The costs and benefits will be presented for the region as a whole. The appraisal period should be for 30 years. Then for each proposed scenario of the project the Consultant will then compute the

project Net Present Value (NPV), and Economic Internal Rate of Return (EIRR), the region as a whole.

The socio-economic impacts of the project will be presented as follow:

1. Impacts directly related to the project	2. Wider socio-economic impacts of the project
1) number of new jobs created, directly linked to the project: in project construction, project operation, project maintenance; 2) number of jobs lost, as a direct consequence of the project, including in the transport industry (competing corridors and modes), in the fishing industry, agriculture, transportation etc.; 3) industry, agriculture, transportation etc.; 4) Number of people and communities affected.	1) impact on the incomes as well as the incremental economic benefits to the project; 2) impact on the costs of living, including the costs of housing, food, and other commodities; 3) impact on local industries of competition from new commodities coming to market (enabled by the new project); 4) number of jobs created, indirectly linked to the project: passing by trade; tourism in the region; catering; renewable energy, new businesses along the waterway corridor induced by the project; including new commodities, whose production was not viable prior to the project due to high transport costs.

Output of the component:

Transport Economic and Market Analysis Report

Component 2. Technical Investigation

1. Navigability Report and Technical Specifications of the Waterway

Objective of the sub-component

The study should analyse existing situation of the waterway and provide engineering solution like river training works, dredging etc. to develop the waterway so that IWT is viable. Classify waterways forming the route based on the PIANC guidelines and IWAI regulation on Classification of Waterways. The Study should provide and analyse realistic alternative scenarios on the development of waterway and restoration (with special focus on the elimination of the “bottlenecks”).

Activities of the component:

1.1 HYDROGRAPHIC SURVEY & HYDRO-MORPHOLOGICAL SURVEY

Hydrographic survey of proposed Sunderbans Inland Waterways, to be carried out as per the International Standards including the following for finding the parameters of proposed Inland Waterways for inland navigation:-

- i. The detailed hydrographic survey is to be carried out in WGS’84 datum.
- ii. The horizontal control is to be made using DGPS with minimum 24 hours observations at some platform/base.

The vertical control is to be established with respect to the chart datum / sounding datum from the following methods:

- i Chart datum/ sounding datum already established by Port Authorities, Fishery deptt., Central Water Commission/ State Irrigation Department and at their gauge stations along the river.
- ii Standard method shall be adopted for transfer of datum in rivers.

Other Terms of Reference for the survey work shall be as given below:

A. WATER LEVEL GAUGES

- i. Water level gauges are to be erected at every 10 km interval along the river. Readings are to be taken at 1 hr interval for 12 hours (6 AM to 6 PM) or for the entire period of survey. The gauges are to be connected to a nearest Bench Mark by levelling and its datum value shall be established w.r.to MSL & CD. Water level gauges are to be installed temporarily during the survey period.
- ii. At least 2 gauges (one U/s and one D/s at 10 Km apart) shall be read simultaneously and soundings to be carried out within the gauge stations. Soundings are to be reduced for datum of a gauge for 5km length of the river on both side of a gauge.

B. BATHYMETRIC AND TOPOGRAPHICAL SURVEY

SHOAL LOCATIONS IN SUNDERBAN WATERWAY FOR HYDROGRAPHIC SURVEY

SL. NO.	LOCATION	LATITUDE (N)	LONGITUDE (E)	Length of survey (m)	Width of survey (m)	Cross-sectional spacing (m)	No. of lines	Line km	
1	Lothian Island	21° 42' 7.36" 21° 42' 29.35"	088° 17' 55.59" 088° 18' 9.16"	760	250	100	9	2250	
2	Choto Banashyamangar	21° 47' 19.94" 21° 47' 42.49"	088° 23' 29.90" 088° 23' 59.73"	1120	1150	100	12	13800	
3	Mollakhali	22° 10' 26.25" 22° 10' 21.22"	088° 54' 1.82" 088° 54' 10.35"	290	850	100	4	3400	
4	Bagnapara	22° 10' 45.22" 22° 10' 50.94"	088° 56' 6.51" 088° 56' 12.42"	250	310	100	4	1240	
5	Kumirmari	22° 11' 26.55" 22° 11' 24.57"	088° 56' 50.94" 088° 57' 3.88"	380	270	100	5	1350	
6	Atharabanki	21° 58' 59.23" 21° 58' 7.67"	089° 04' 47.49" 089° 04' 31.39"	1670	2200	100	18	39600	
								4470 m	61640 m
								4.47 km	61.64 km

FLOATING TERMINAL LOCATION - FOR TOPOGRAPHIC SURVEY

Hemnagar	22° 12' 23.67"	088° 59' 0.08"	400	150	10m x 10m grid	41	6150 m
							6.15 km

Bathymetric and Topographical survey of proposed Inland Waterways is to be conducted for width specified in above table.

- a. Cross-section sounding lines / levelling are to be run from bank to bank at spacing specified in above table, to identify the navigable channel.

- b. Continuous soundings are to be taken by running the sounding boat at constant speed on the cross-section so as to get smooth contours. Intermediate line is to be run at bends, if the line spacing is more than the specified above.
- c. If Island or sandchur exist in the middle of the river, spot levels on the same spacing should also be taken and indicated in the charts along the same cross-section line.
- d. Surveys in non-approachable areas are to be informed by the Consultant and joint inspection (Consultant's representative & Engineer-In-Charge or his representative) will be held to confirm the non-approachable areas.
- e. *The survey area may consist of canal sections, rivers, sea openings of different dimensions. Hence, a standard width cannot be specified. Consultant has to inspect the area to be surveyed and satisfy themselves with respect to site conditions before submission of bid. However, variation in quantity is $\pm 10\%$.*
- f. The soundings are to be reduced to the chart datum/ sounding datum established at every gauge stations.

C. CURRENT VELOCITY AND DISCHARGE MEASUREMENT INCLUDING SEDIMENTATION

- a. The current velocity and discharge at every 10 km interval shall be observed once in a day during the survey period. Current velocity and discharge at every 10 km interval are to be measured only once at different depths while carrying out survey in that region.
- b. Current meter measurement should be taken at depth surface, 0.5d, 0.3d and d (d-measured depth of water) & values indicated in the report along with position.
- c. Measurements at different depths may be taken by single equipment over three different time spans.
- d. Measurement of current velocity at different depth is to be measured for at least 15 minutes or as per listed calibration period of the equipment, under use for this project.
- e. Current velocity and discharge can also be measured with the help of ADCP during survey, at every 10km interval.
- f. Sedimentation study to determine sediment load, type of sediments and rate of sedimentation.

D. WATER AND BOTTOM SAMPLES

Water and bottom samples are to be collected from the deepest route at every 10 km interval and are to be tested and the results/characteristics of the soil and the water are to be incorporated in the report. Soil sample can be collected by a grab and water sample at depth surface, 0.5d, 0.3d & d (d-measured depth of water) by any approved systems. The following tests are to be carried out for Bottom samples:-

- i) Grain size distribution
- ii) Specific gravity,
- iii) PH value
- iv) Cu, Cc
- v) Clay silt% and Sediment concentration for Water Samples.

E. RIVER WORKS, ARCHITECTURE AND TECHNICAL SPECIFICATIONS

As a sequel to the hydrographic and hydrologic studies, & the classification of waterways, the Consultant shall make proposals on the options of the type and sizes of barges that can optimally ply on the waterway and consistent with the recommendations of realistic alternative scenarios of development of waterway.

The Consultant shall carry out the following activities:

- a The Consultant shall investigate port/terminal infrastructure development options to ensure the efficient transportation of goods on the waterway, including facilities of smaller intermediate terminals along the waterway accessible to enterprises of the regions. The investigations will also include options for river-sea vessel types that could transport goods directly from rivers to bigger ports or lighterage areas;
- b The Consultant shall provide proposals of dredging, river training works or channel construction works that need to be undertaken to optimise the navigability of the waterway consistent with social and environmental impact assessment;
- c The Consultant shall also prepare preliminary list of the facilities that need to be built, including quays, docking, navigation equipment and other facilities to make the navigation for water transport not less than class IV of classification of waterways as per IWAI regulation for classification;
- d The Consultant shall compile technical information on the availability of the actual and required water flows in the Waterway in line with the existing water management authorities taking into account the other uses of water (e.g. water for irrigation, consumption, industry, existing and planned power plants);
- e The Consultant shall prepare topographic maps covering the areas proposed by him for the elimination of the “bottlenecks” and sections with insufficient parameters according to PIANC Guidelines for development of waterways;
- f The Consultant shall investigate the clearance (air draft and width) of all bridges existing at and bridges planned to be constructed as well as electricity lines or other cross river structure if any, in the course of the waterway;
- g The Consultant shall examine options of types and sizes of barges that should ply the waterway in order to optimise the economic benefits and minimise the environmental impacts;
- h The Consultant shall prepare preliminary plan of river works including dredging and river training requirements for sustainable navigation;
- i The Consultant shall determine the locations and prepare the preliminary technical characteristics of various facilities to be built to operationalise the waterway, including the appropriate navigational aids;
- j The Consultant shall assess the volumes and costs of deepening and widening the waterway as proposed in the project taking into account the limitations as a result of natural variation of water depth over the year as well as determine the frequency and level of future interventions to maintain the rivers and channels navigable;
- k The Consultant shall propose options for optimising the operation of the infrastructure constructed.

The planning and preliminary engineering design studies are required to determine the costs of future investments as well as operations and maintenance costs of the waterway. The Consultant shall therefore prepare cost estimates of river works and facilities to be realized to make the waterway navigable and these costs shall be required as inputs into the economic and market analysis. Summary of results including data in tables and graphs should be prepared in a form adequate to serve as detailed planning criteria for the design of a safe and navigable waterway.

Outputs of the component:

Navigability Report and Technical Specifications of the Waterway and functional planning of proposed terminals

F. COLLECTION OF TOPOGRAPHICAL FEATURES

- i) Photographs of the prominent features are to be taken and included in the report along with its position.
- ii) Permanent structures/cross structures located within this corridor/specified width are also required to be indicated on the report & charts.
- iii) All prominent shore features (locks, bridges, aqueducts, survey pillars if available etc) and other conspicuous objects are to be fixed and indicated on the chart and included in the report.
- iv) Identify cross structures which are obstructing navigation.
- v) Details (horizontal and vertical clearances above High Flood Level in non-tidal area and High Tide Level in tidal area) of bridges, aqueducts, electric lines, telephone lines, pipe lines, cables en-route are to be collected and indicated on the chart and also included in the report along with their co-ordinates and location.
- vi) Details of water intake/ structures are to be collected and shown on the charts and include in the report.
- vii) Availability of berthing place, existing jetty, ferry ghats, approach roads etc. are to be indicated on the charts and include in the report.
- viii) During the survey, condition of the banks are also required to be collected. It is to be noted that banks are pitched (protected) or not protected. Estimate the length of bank protection, where banks erosion is taking place.
- ix) Positions and levels of corners of permanent structures within the corridor are to be physically surveyed and marked on survey charts. Approachable roads / rails / places outside the corridor may be incorporated from Topo sheets/Google Map/Google Earth
- x) Conduct topographical survey for proposed terminal locations in 10m x 10m grid size.
- xi) Details for acquisition of land including ownership and estimated cost of land acquisition (if required). This will include all details to be collected from the State Revenue Departments with adequate background papers for indicating Government or private land. This will include land not only for main terminal but also for suitable road connectivity.
- xii) Photographs of the prominent features on the marked area are to be taken and included in the report along with its position.
- xiii) Identify Permanent structures/cross structures located within the proposed terminal grid.
- xiv) Details of any permanent/temporary establishment, electric lines, telephone lines, pipe lines, cables on proposed terminal grid are to be collected and indicated on the chart and also included in the report along with their co-ordinates and location.

G. SURVEY CHART PREPARATION

- a. The survey chart is to be prepared on a scale of 1:1,000 (for river width less than 500m) and in 1:5,000 (for (for river width more than 500m).
- b. Contours of 0m, 1m, 2m, 3 m, 5m and 10 m are to be indicated on the charts.
- c. Reduced spot levels w.r.to MSL to be indicted on the charts. Spot level values are to be given w.r.t. Mean Sea Level (MSL) & Soundings w.r.t. Chart Datum / Sounding Datum. A separate file (xyz) (soft copy only) is also to be created for spot levels w.r.t. Chart Datum / Sounding Datum for dredging calculation purpose.
- d. On completion of the cross-sections, dredge channel is to be identified/ established by linking deepest soundings on the cross-sections. Dredging quantity is to be estimated for developing a navigational channel of dimension of 45m x 3.0m, with side slope of 1:5, w.r.t. chart datum/sounding datum.
- e. Dredging quantity is to be indicated in the report for each location of the waterway.
- f. Minimum & maximum reduced depth and length of shoal for each location of the waterway is also to be indicated in the report.
- g. Current meter measurement values shall be indicated in the report along with position.
- h. The results/characteristics of the soil and the water are to be incorporated in the report.
- i. Shallow patches /shoal and submerged sandchur having less than 1.0 m depth, rocky outcrops, rapids and other navigational impediments are to be indicated on the charts.
- j. A brief write up on condition of the locks (if available) are also to be included in the report.
- k. The chart shall also be suitably updated with prominent land features from the Toposheets/site.

H. DATA SUBMISSION

- i) All raw data and processed data of Automatic Hydrographic Survey System are required to be submitted along with bills and reports. Standard procedure is to be adopted for data processing. All RAW, EDIT, SORT and field data are required to be submitted by the Consultant.
- ii) All surveyed field data including leveling data (csv file) are required to be submitted along with bills and reports
- iii) All position data of ground features, waterway structures are to be submitted in both hard copies and soft copies.

I. Survey equipment:

Consultant is required to mobilize the required survey vessels / boat and equipment at survey site, required for carrying out Hydrographic survey as per following conditions:

- i. Suitable survey vessel / boat with minimum draft.
- ii. The Digital echo sounders with necessary spares and consumables.

- iii. Survey instruments such as DGPS receiver (any company DGPS with sub-meter accuracy), Computer compatible & loaded with suitable Hydrographic Survey Software like HYPACK MAX or equivalent Software, Plotters, Total Stations (1mm accuracy) and levels for establishing proper ground control. The Automatic Hydrographic survey system should have on-line & off-line processing/recording facilities.
- iv. Suitable current meters for current observations
- v. Qualified team of surveyors and other supporting staff. Land Survey team: Minimum qualification - ITI (survey) / Diploma in Civil / SR-II (Survey Recorder Grade-II, Indian Navy). Hydrographic Survey team: Minimum qualification - Diploma in Civil with 3 years Hydrographic survey experience or SR-II.

J. SPECIFICATIONS

- i. Vessels / Boat**
 - a) Consultant is free to deploy any vessel / boat (maximum draft of 1m) suitable for Hydrographic surveys, subject to safety of personnel & equipment. It is advisable to use inflatable boat for shallow depths.
 - b) Fuel, logistic etc. will be responsibility of the Consultant.
- ii. Echo Sounder**
 - a) Can be a single/dual frequency type standard dry/thermal paper recording system with a range up to 60 mtr and sufficient resolution.
 - b) Digital echo sounder with recording paper roll (for Bar Check only) is required to be used. Bar check is to be carried out before start and end of survey. Necessary corrections in soundings are to be applied, if any.
 - c) The Consultant should provide adequate backup power, spares and recording papers and other consumables for uninterrupted survey operations.
- iii. Position Fixing**

The position fixing should be done by using differential global positioning system not less than 12 channel receivers for sub-metre accuracy.
- iv. Shore Survey Equipment**

Land survey party should be equipped with land survey equipment like theodolite, Auto levels, Total Station with required accuracy standard for Horizontal and Vertical Control.
- v. Current Meter**

Consultant may use either Acoustic based (ADCP) or Impeller based Current Meter. Calibration certificate - From any certified agency like CWPRS, Pune or OEM test certificate would suffice.
- vi. Computer and Hydrography Survey Software**

Suitable computer compatible & loaded with the automatic hydrographic survey software like HYPACK MAX or equivalent software is to be used for the survey purpose. Automatic Hydrographic Survey system used for hydrographic survey data collection and processing, with the help of Survey software, Echosounder and DGPS. All other computer Peripherals like color Plotter, Printer etc. to be used for generating outputs. Consultant may use Hydaspro / HypackMax or equivalent software.

However, data is to be submitted to IWAI in HypackMax format (RAW data, Edit data, Sort data, Planned lines, etc.). Drawings are to be submitted in DWG format of AutoCAD.

2. Preliminary engineering design, site data, material specification and work specifications

Objective of the sub-component

The consultant shall provide planning, preliminary engineering design, site data, material specification and work specifications for fairway and terminals

Activities of the component:

1) ENGINEERING DESIGN STUDY

- a) The planning and preliminary engineering design studies are required for construction, operations and maintenance costs of the waterway and terminals and would be fundamental to determine the costs of project and future investments.
- b) The Consultant shall therefore prepare cost estimates of river works and facilities to be realized to make the waterway navigable and these costs shall be required as inputs into the economic and market analysis.
- c) Summary of results including data in tables and graphs should be prepared in a form adequate to serve as detailed planning criteria for the design of a safe and navigable waterway.
- d) Technical concept: Specification and description of the most suitable layout and design for civil works, mechanical equipment, hydraulic steel structures etc.
- e) Design Basis including the Hydrography survey, hydrological conditions, Soil investigation, Geological conditions, Geotechnical Investigations (2 bore hole studies at pre identified terminal location, further in case of any additional identified fixed/floating terminal location/s 2 bore hole study will be required to be conducted for each identified terminal location), Topographical conditions.
- f) Material and work specification
- g) Scheme layout,
- h) Permits, licenses and Clearances for waterway development activity such as dredging and construction
- i) Work and Time Schedule
- j) Detailed Cost estimates (Capital and Opex)
- k) Risk Assessment: Summary of key project risks and mitigation options

Outputs of the component:

1. Design Concept Report
2. Design of the Waterways and shallow draft vessels
3. Dredging Methodology
4. Design of the Preparatory Works
5. Investment Cost and Construction Planning
6. Preliminary Engineering Drawings

Component 3. Financing

Objective of the component

The Consultant shall undertake investments and transaction analysis to determine the most viable investment scenarios for operationalising the waterway. This work shall include public sector facilitation and investments requirements, private sector investments and a combination of public and private sector investments. The study should also propose funding possibilities and the strategy for mobilising resources to fully operationalise the waterway.

Activities of the component:

1) Financial Feasibility Study

The financial feasibility of the project should assess its viability from monetary terms, taking into account all cash flows involved as direct or indirect consequence of the project. The Consultant should undertake a detailed business case including the following:

- a) Based on the project costs and revenues cash flows, develop a financial model that can model various procurement methods and that computes the project financial IRR, and NPV;
- b) Using the financial model appraise for each project scenario, the viability of procuring both the capital investments (physical facilities to be constructed under the project, e.g. dredged waterway, new ports, navigation aids, any feeder road/rail connections, storage facilities, etc.), and the services (procurement of vessels, operation of services), under public/private arrangement, and propose the option with best Value for Money;.

Outputs of the component:

Financial Feasibility Report.

4.2. GEOGRAPHICAL AREA TO BE COVERED

100km on either side of the waterways for traffic study

5. LOGISTICS AND TIMING

5.1. Start date & Period of implementation of tasks

The intended start date is date of award of work and the period of implementation of the contract will be as per clause 7 (Reports) mentioned below.

6. REQUIREMENTS

6.1. Staff

For undertaking the above study the staff requirement is listed below in key experts section. The consultant has to inform that the expert is seconded or on personal leave. The Consultant should possess not less than 6 experts listed below on the moment of application submission. Experts can combine the roles of several experts listed below in case they can possess necessary qualification and prove this in their CVs.

6.1.1. Key experts

Key experts must submit CVs and signed Statements of Exclusivity and Availability. All experts who have a crucial role in implementing the contract are referred to as key experts.

The experts required for this assignment are expected to have appropriate qualifications and professional experience as profiled below. The profiles of the key experts for this contract are as follows:

1) Waterway Expert (Team Leader)

Educational Qualification:

- Should be Graduate in Civil Engineering. Higher professional qualification in Port and Harbour Engineering/Structural Engineering/Geo-technical Engineering will be preferred.

Professional Qualification:

- Minimum 15 years' experience in planning, design, construction, preparing Feasibility Report / Detailed Project Report for various waterway / port / river front development / river training works, terminals, trade facilitations and other infrastructures in different natural and operational conditions with at least 5 years in a reputed firm of consultants. The Expert shall have experience in planning and design of river training works including dredging works in complex river systems of larger magnitude for commercial waterways.

2) Structural Engineer

Educational Qualification:

- Should be Graduate in Civil Engineering / Architecture. Postgraduate training/ studies in Port & Harbour Engineering will be preferred.

Professional Qualification:

- Minimum 10 years' experience in planning and designing of infrastructure.

Should be well conversant with different types of port structures and other physical facilities required for the provision of various port services efficiently. Should preferably have experience/ exposure of constructing several modern ports.

3) Naval Architect

Educational Qualification:

Should be Graduate in Naval Architecture or Ocean Engineering with 10 years of experience in preparation of system layouts and detailed drawings and schematics inspect marine vessels, equipment and machinery

Professional Qualification:

The Dredging Expert shall have at least 10 years' experience in the field relevant to the assignment. The expert must have experience in design, construction and repair of ships, boats, other marine vessels and offshore structures. Conduct environmental, operational, or performance tests on marine vessels, machinery and equipment

4) Hydrographic/Dredging Expert

Educational Qualification:

- Should be ITI in Survey/Diploma in Civil Engineering. Naval Hydrographic Department / Port Survey Department qualifications, e.g., POSRI, Civil Hydrographic Course Certificate or higher qualification in relevant field would be preferred.

Professional Qualification:

- Minimum 10 years' experience in conducting hydrographic surveys, investigations and measurements, bathymetric surveys/Topographic Survey in a variety of geographical locations and

natural. Experience in waterway/port/river mapping and a demonstrated proficiency in using the GIS software. Working knowledge of spatial data formats and related metadata issues. Working knowledge of web mapping applications, such as Google Earth/Bhuvan.

5) Soil Engineer/ Foundation Engineer:

Educational Qualification:

- Should be Graduate in Civil/Environmental Engineering. Higher qualification in Marine Structure/Geotechnical Engineering will be preferred.

Professional Qualification:

- Minimum 10 years' experience in related field. He should have experience of the soil investigation, reclamation work, soil improvement and will be associated in foundation design. He will also be responsible for preparation of cost estimates/BOQ.

6) Transport Economist:

Educational Qualification:

- Should be Graduate in transport planning management, transport economics, transport/road/rail/Civil engineering/MBA or equivalent qualifications. Higher qualification in relevant field will be preferred.

Professional Qualification:

- Minimum 10 years' experience in related field. He should have experience of estimating transport investments and implementing transport programs.

6.1.2. Other experts, support staff & back office support staff

CVs for experts other than the key experts should not be submitted in the tender but the tenderer will have to demonstrate in their offer that they have access to experts with the required profiles. The Consultant shall select and hire other experts as required according to the needs. The selection procedures used by the Consultant to select these other experts shall be transparent, and shall be based on pre-defined criteria, including professional qualifications, language skills and work experience. The costs for backstopping and support staff, as needed, are considered to be included in the tenderer's financial offer.

6.2. Office accommodation

Office accommodation for each expert working on the contract is to be provided by the Consultant.

6.3. Facilities to be provided by the Consultant

The Consultant shall ensure that experts are adequately supported and equipped. In particular it must ensure that there is sufficient administrative, secretarial and interpreting provision to enable experts to concentrate on their primary responsibilities. It must also transfer funds as necessary to support their work under the contract and to ensure that its employees are paid regularly and in a timely fashion.

6.4. Equipment

No equipment is to be purchased on behalf of the Contracting Authority as part of this service contract or transferred to the Contracting Authority at the end of this contract. Any equipment

related to this contract which is to be acquired shall be purchased by means of a separate supply tender procedure.

7. REPORTS

7.1. Reporting requirements

The Consultant will submit the following reports in English, in three original and electronic copy. The intended start date is date of award of work..

7.1.1 Inception Report of maximum 20 pages to be produced after 1 weeks from the start of implementation. The Inception Report shall provide details of the activities, strategies, concept scenarios, milestones and time-phased action plan which the consultant intends to use to fulfil the Terms of Reference.

7.1.2 Draft Study Report

The Consultant shall prepare and submit the draft report which shall contain the results of the transport economic and market surveys, completed Technical Investigations, the Transport Economic & Market Analysis; Annexure IV, V, VI, VII, and VIII shall be followed for developing the Draft Techno Economic Feasibility Study. This report shall be submitted by the consultant eight (08) weeks from the date of commencement of the study. A presentation of the same report should be made by the consultant nine (09) weeks from the date of commencement of the study.

7.1.4 Final report with the same specifications as the draft final report, incorporating any comments received from the parties on the draft report. The deadline for sending the final report is one (1) week after receipt of comments on the draft final report.

7.2. Submission and approval of reports

The report referred to above must be submitted to the Hydrographic Chief, IWAI getting final approval from the competent authority, post communicating the changes/suggestions made by competent authority (if any) to the consultant and getting the report modified accordingly.

8. MONITORING AND EVALUATION

8.1. Independent evaluation of results

The final version of the Feasibility Study will be evaluated on achieving of expected results and corresponding to the IWAI standards before approval of the final report of Consultant.

SECTION: 7.0 TENDER ACCEPTANCE LETTER

(To be given on Company Letter Head)

Date:

To,

Sub: Acceptance of Terms & Conditions of Tender.

Tender Reference No: _____

Name of Tender / Work: -

Dear Sir, 1. I/ We have downloaded / obtained the tender document(s) for the above mentioned 'Tender/ Work' from the web site(s) namely: _____ as per your advertisement, given in the above mentioned website(s).

2. I / We hereby certify that I / we have read the entire terms and conditions of the tender documents from Page No. ..to ... (including all documents like annexure(s), schedule(s), etc .), which form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.

3. The corrigendum(s) issued from time to time by your department/ organisation too has also been taken into consideration, while submitting this acceptance letter.

4. I / We hereby unconditionally accept the tender conditions of above mentioned tender document(s) / corrigendum(s) in its totality / entirety.

5. In case any provisions of this tender are found violated by us, then your department/ organisation shall without prejudice to any other right or remedy be at liberty to reject this tender/bid including the forfeiture of the full said earnest money deposit absolutely.

Yours Faithfully,

(Signature of the Bidder, with Official Seal)

SECTION-8: FORMAT FOR SUBMISSION OF FIRMS CREDENTIALS

The bid should contain the following information in enclosed format at Annex-A.

- Year of Establishment of Firm
- Average annual turnover (last three years)

Note: The Firm shall submit Certificate of Incorporation and audited balance sheet for the last three years (FY 2012-2013, FY 2013-2014 and FY 2014-2015).

For claiming experience of projects, completion certificate from Client should be enclosed. The bid should also contain the details of the key personnel viz. their name, qualification, expertise area, experience and years of association with the firm.

ANNEX-A

The following information related to the firm should be provided in the bid.

- i. Name of the Project applied for:-
- ii. Year of establishment of firm *

Consultant	Year of Establishment	Country	Type of Organization			
			Individual	Partnership	Corporation	Other
Individual / Lead Partner (of JV)						

NOTE: - Year of Establishment of Lead Partner of JV shall be considered.

*Copy of Certificate of incorporation shall be submitted.

- iii. Office/Business Address/Telephone nos./Cable Address.
- iv. Narrative description of firm (Not more than 2 sheets)
- v. Name of two (2) principals who may be contacted with title and telephone number/fax number/e-mail.
- vi. Financial Statement of the last three (3) years. **

S. No.	Particular	2014-15	2013-14	2012-13
i.	Annual turnover from Consulting assignments only			
ii.	Total Assets			
iii.	Current Assets			

c) Balance Sheet/ Auditor Certificate of last 3 years (2012-13, 2013-14 and 2014-15) shall be submitted as evidence of Annual Turnover.

**a) The amount shall be stated in INR. (currency exchange rate will be considered as per Foreign Exchange Rate published by State Bank of India. The date of Currency exchange rate is: 7 days prior to last date of submission of bid including the bid submission day)

vii. List only previous similar assignments successfully completed in the last seven (7) years. viii. List only those assignments for which the Consultant was legally contracted by the Authority as a company or was one of the joint venture partners. Assignments completed by the Consultant's individual experts working privately or through other consulting firms cannot be claimed as the relevant experience of the Consultant, or that of the Consultant's partners or sub-consultants, but can be claimed by the Experts themselves in their CVs. The Consultant should be prepared to substantiate the claimed experience by presenting copies of Completion Certificate and references if so requested by the Authority.
ix. DETAILS OF SIMILAR WORKS / STUDIES CARRIED OUT IN LAST SEVEN YEARS.

Name of work	Contract Value	Schedule of Completion / Actual date of completion	Extension, if any

Note:

1. Scanned copies of **completion certificate** to be submitted in the technical bid in case of completed consultancy works and letter from the Client mentioning the % completion (financial/physical progress) on the Client's Letterhead to be submitted in case of ongoing consultancy works to substantiate the experience. *(Note: 90% completed works (financial/physical progress) will be considered for evaluation.)*
2. Similar works means

(Sign. and Seal of Consultant)

SECTION-9 FORMAT FOR SUBMISSION OF TECHNICAL BID

Annex B-1	Composition of Team and Task(s) of each team member
Annex B-2	Approach & Methodology (including Survey Planning)
Annex B-3	Curriculum Vitae
Annex B-4	Work Plan

ANNEX

B-1

LIST OF KEY EXPERTS' PROPOSED TO BE DEPLOYED FOR THE ASSIGNMENT

Sl. No.	Name	Category of professional	Area of experience & years of experience

Note: Scanned copies of CVs OF KEY EXPERTS' PROPOSED TO BE DEPLOYED FOR THE ASSIGNMENT to be submitted in the technical bid.

(Sign. and Seal of Consultant)

ANNEX

B-2

APPROACH & METHODOLOGY

1. **Technical Approach and Methodology.** *[Please explain your understanding of the objectives of the assignment as outlined in the Terms of Reference (TORs), the technical approach, and the methodology you would adopt for implementing the tasks to deliver the expected output(s), and the degree of detail of such output. {Please do not repeat/copy the TORs in here.}]*

ANNEX

B-3 CURRICULUM VITAE (CV)

Position Title and No.	{e.g., TEAM LEADER}
Name of Expert:	{Insert full name}
Date of Birth:	{day/month/year}
Country of Citizenship/Residence	

Education: {List college/university or other specialized education, giving names of educational institutions, dates attended, degree(s)/diploma(s) obtained}

Employment record relevant to the assignment: {Starting with present position, list in reverse order. Please provide dates, name of employing organization, titles of positions held, types of activities performed and location of the assignment.}

Period	Employing organization and your title/position.	Country	Summary of activities performed relevant to the Assignment

Membership in Professional Associations and Publications:

Language Skills (indicate only languages in which you can work): _____

Adequacy for the Assignment:

Detailed Tasks Assigned on Consultant's Team of Experts:	Reference to Prior Work/Assignments that Best Illustrates Capability to Handle the Assigned Tasks

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience, and I am available to undertake the assignment in case of an award. I understand that any misstatement or misrepresentation described herein may lead to my disqualification or dismissal by the Authority.

{day/month/year}

Name of Expert

Signature

Date

{day/month/year}

Name of authorized

Signature

Date

Representative of the Consultant

(the same who signs the Bid)

ANNEX B-4

WORK PLAN

A. Work Plan. *[Please outline the plan for the implementation of the main activities/tasks of the assignment, their content and duration, phasing and interrelations, milestones (including interim approvals by the IWAI), and tentative delivery dates of the reports. The proposed work plan should be consistent with the technical approach and methodology, showing your understanding of the TOR and ability to translate them into a feasible working plan. A list of the final documents (including reports) to be delivered as final output(s) should be included here. The work plan should be consistent with the Work Schedule Form.]*

		Week-wise Program (in form of Bar Chart)											
		<i>[1 , 2 , etc. are weeks from the start of assignment]</i>											
Sl. No	Item of Activity (Works)	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10 th	11 th
.													
1												
2												
3												
...												
...												

SECTION: 10.0 DETAILS OF BANK ACCOUNT FOR RELEASE OF PAYMENT THROUGH ELECTRONIC FUND TRANSFER SYSTEM.

(TO BE FURNISHED BY THE BIDDER ON ITS LETTER HEAD)

NAME OF THE PROJECT: Consultancy Services for Technical Economic Feasibility Report Preparation for development of Sunderbans Inland Waterways

THE BANK ACCOUNT DETAILS ARE FURNISHED AS BELOW.

We _____ (Name of the Bidder) hereby request you to give our payments by crediting our bank account directly by E-payment mode as per account details give below. We hereby undertake to intimate IWAI in case of any change in particulars given below and will not hold IWAI responsible for any delay I default due to any technical reasons beyond IWAI's control:-

Bank Account Number : _____

RTGS/NEFT/IFSC Code : _____

NAME OF THE BANK : _____

ADDRESS OF THE BRANCH OF THE BANK : _____

BRANCH CODE : _____

ACCOUNT TYPE (SAVING/CURRENT/OTHERS): _____ A

BLANK CHEQUE (CANCELLED) IS ENCLOSED HERewith.

I/WE hereby declare that the particulars given above are correct and complete if the transaction is delayed or credit is not affected at all for reasons of incomplete or incorrect information. I/We would not hold IWAI responsible.

Signature of Authorized Signatory

Date:

BANK CERTIFICATION

It is certified that above mentioned beneficiary holds a bank account No _____ with our branch and the bank particulars mentioned above are correct.

Date

Authorized Signatory

Authorization No. _____

Name: _____

Official Seal/Stamp



SECTION: 11.0 PRICE BID

CONSULTANCY SERVICES FOR PREPARATION OF TECHNICAL ECONOMIC FEASIBILITY REPORT FOR PROPOSED DEVELOPMENT OF SUNDERBANS INLAND WATERWAYS

SCHEDULE OF QUANTITIES (BOQ1) to be filled and submitted online& offline both

Consultancy Services for Preparation of Technical Economic Feasibility Report for proposed development of Sunderbans Inland Waterways

CONSULTANCY SERVICES

Tender Inviting Authority: Inland Waterways Authority of India								
Name of Work: CONSULTANCY SERVICES FOR PREPARATION OF TECHNICAL ECONOMIC FEASIBILITY REPORT FOR PROPOSED DEVELOPMENT OF SUNDERBANS INLAND WATERWAYS								
Contract No. IWAI/PR/SUNDERBANS/2016/1								
Bidder Name:								
PRICE SCHEDULE (This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)								
Sl. No.	Item Description	Item Code / Make	Qty	Units	Basic Price (in. Rs.)	Service Tax (in Rs.)	Total Amount With Taxes (in Rs.)	Total Amount In Words
1	2		4	5	13	15	54	55
1.00	Consultancy Services for Sunderbans Inland Waterways (as per TOR of tender)	item1	1	No				
***Total in Figures								
***Quoted Rate in Words		INR						

(SIGNATURE OF CONSULTANT)

DATE :NAME & DESIGNATION:.

NAME OF FIRM & SEAL.....

SECTION: 12.0

To be signed by the bidders and same signatory competent/ authorized to sign the relevant contract on behalf of IWAI.

INTEGRITY AGREEMENT

This Integrity Agreement is made at on thisday of 20.....

BETWEEN

Chairperson, Inland Waterways Authority of India represented through Hydrographic Chief, Inland Waterways Authority of India, A - 13, Sec. – 1, Noida.

IWAI, (Hereinafter referred as the 'Principal/ Owner', which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

AND

.....

(Name and Address of the Individual/firm/Company)

through(Hereinafter referred to as the

(Details of duly authorized signatory)

“Bidder/Consultant” and which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

Preamble

WHEREAS the Principal / Owner has floated the Tender (Tender No. IWAI/PR/SUNDERBANS/2016/1) (hereinafter referred to as “Tender/Bid”) and intends to award, under laid down organizational procedure, contract for “**Consultancy Services for preparation of Technical, Economic and Financial Feasibility Study for Proposed development of Sunderbans Inland Waterways**” hereinafter referred to as the “Contract”.

AND WHEREAS the Principal/Owner values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relation with its Bidder(s) and Consultant(s).

AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this Integrity Agreement (hereinafter referred to as “Integrity Pact” or “Pact”), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties.

NOW, THEREFORE, in consideration of mutual covenants contained in this Pact, the parties hereby agree as follows and this Pact witnesses as under:

Article 1: Commitment of the Principal/Owner

- 1) The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:

- (a) No employee of the Principal/Owner, personally or through any of his/her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
 - (b) The Principal/Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Principal/Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.
 - (c) The Principal/Owner shall endeavour to exclude from the Tender process any person, whose conduct in the past has been of biased nature.
- 2) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

Article 2: Commitment of the Bidder(s)/Consultant(s)

1. It is required that each Bidder/Consultant (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the IWAI all suspected acts of fraud or corruption or Coercion or Collusion of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.
2. The Bidder(s)/Consultant(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:
 - a) The Bidder(s)/Consultant(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal/Owner's employees involved in the tender process or execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the contract.
 - b) The Bidder(s)/Consultant(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.
 - c) The Bidder(s)/Consultant(s) will not commit any offence under the relevant IPC/PC Act. Further the Bidder(s)/Contract(s) will not use improperly, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Principal/Owner as part of the business relationship, regarding plans, technical Bids and business details, including information contained or transmitted electronically.
 - d) The Bidder(s)/Consultant(s) of foreign origin shall disclose the names and addresses of agents/representatives in India, if any. Similarly Bidder(s)/Consultant(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participate in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.

- e) The Bidder(s)/Consultant(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.
3. The Bidder(s)/Consultant(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
4. The Bidder(s)/Consultant(s) will not, directly or through any other person or firm indulge in fraudulent practice means a wilful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of the Government interests.
5. The Bidder(s)/Consultant(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/ her reputation or property to influence their participation in the tendering process).

Article 3: Consequences of Breach

Without prejudice to any rights that may be available to the Principal/Owner under law or the Contract or its established policies and laid down procedures, the Principal/Owner shall have the following rights in case of breach of this Integrity Pact by the Bidder(s)/Consultant(s) and the bidder/Consultant accepts and undertakes to respect and uphold the Principal/Owner's absolute right:

1. If the Bidder(s)/Consultant(s), either before award or during execution of Contract has committed a transgression through a violation of Article 2 above or in any other form, such as to put his reliability or credibility in question, the Principal/Owner after giving 14 days' notice to the Consultant shall have powers to disqualify the Bidder(s)/Consultant(s) from the tender process or terminate/determine the Contract, if already executed or exclude the Bidder/Consultant from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Principal/Owner. Such exclusion may be forever or for a limited period as decided by the Principal/Owner.
2. Forfeiture of EMD/Performance Guarantee/Security Deposit: If the Principal/Owner has disqualified the Bidder(s) from the tender process prior to the award of the contract or terminated/determined the contract or has accrued the right to terminate/determine the contract according to Article 3(1), the Principal/Owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder/Consultant.
3. Criminal Liability: If the Principal/Owner obtains knowledge of conduct of a bidder or Consultant, or of an employee or a representative or an associate of a bidder or Consultant which constitutes corruption within the meaning of IPC Act, or if the Principal/Owner has substantive suspicion in this regard, the Principal/Owner will inform the same to law enforcing agencies for further investigation.

Article 4: Previous Transgression

- 1) The Bidder declares that no previous transgressions occurred in the last 5 years with any other Company in any country confirming to the anticorruption approach or with Central Government

or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.

- 2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/ holiday listing of the Bidder/Consultant as deemed fit by the Principal/ Owner.
- 3) If the Bidder/Consultant can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Owner may, at its own discretion, revoke the exclusion prematurely.

Article 5: Equal Treatment of all Bidders/Consultants/Sub-Consultants

- 1) The Bidder(s)/Consultant(s) undertake(s) to demand from all sub-Consultants a commitment in conformity with this Integrity Pact. The Bidder/Consultant shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its Sub-Consultants/ sub-vendors.
- 2) The Principal/Owner will enter into Pacts on identical terms as this one with all Bidders and Consultants.
- 3) The Principal/Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Principal/Owner and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

Article 6: Duration of the Pact

This Pact begins when both the parties have legally signed it. It expires for the Consultant/Vendor 3 months after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other bidders, till the Contract has been awarded.

If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Competent Authority, IWAI.

Article 7: Other Provisions

- 1) This Pact is subject to Indian Law, place of performance and jurisdiction is the Headquarters of the Division of the Principal/Owner, who has floated the Tender.
- 2) Changes and supplements need to be made in writing. Side agreements have not been made.
- 3) If the Consultant is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.
- 4) Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- 5) It is agreed term and condition that any dispute or difference arising between the parties with regard to the terms of this Integrity Agreement / Pact, any action taken by the Owner/Principal in accordance with this Integrity Agreement/ Pact or interpretation thereof shall not be subject to arbitration.

Article 8: LEGAL AND PRIOR RIGHTS

All rights and remedies of the parties hereto shall be in addition to all the other legal rights and remedies belonging to such parties under the Contract and/or law and the same shall be deemed to be cumulative and not alternative to such legal rights and remedies aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender/Contact documents with regard any of the provisions covered under this Integrity Pact.

IN WITNESS WHEREOF the parties have signed and executed this Integrity Pact at the place and date first above mentioned in the presence of following witnesses:

.....

(For and on behalf of Principal/Owner)

.....

(For and on behalf of Bidder/Consultant)

WITNESSES:

1.

(signature, name and address)

2.

(signature, name and address) Place:

Date :

SECTION: 13.0

AGREEMENT FORMAT

This agreement made on _____ day _____ year _____ between the Inland Waterways Authority of India (hereinafter called the 'IWAI' which expression shall unless excluded by or repugnant, to the context, be deemed to include heir, successors in office) on one part and M/S _____ (hereinafter called the 'CONSULTANT' which expression, shall unless excluded by repugnant to the context be deemed to include his heirs, executors, Administrators, representatives and assigns of successors in office) on the other part.

WHEREAS THE IWAI desirous of undertaking the works _____

WHEREAS the Consultant has offered to execute and complete such works and whereas IWAI has accepted the tender of the Consultant and WHEREAS the Consultant has furnished _____ as

security for the due fulfilment for all the conditions of this contract.

NOW IN THIS AGREEMENT WITNESSTH AS FOLLOWS

In this agreement words and expression shall have the same meaning as are respectively as assigned to them in the conditions of contract hereinafter referred to:

The following documents shall be deemed to form and be read and construed as part of this agreement VIZ.

- i) (a) Notice Inviting Tenders
 - (b) Tender form
 - (c) Warranty
- ii) Information & instruction for Tenders iii) (a) Schedule : Bill of Quantity
 - (b) Annexure iv) General Conditions of Contract
- v) Technical specifications and Special Conditions of Contract

The contract agreement has been compiled by the IWAI from the original tender documents and all the correspondences from the tendering stage till acceptance. In the event of any difference arising from the completion of the contract, the original tender documents,

Consultant's offer, minutes of meetings and correspondence between the party ended vide letter No. _____ may be referred to by either party. These documents shall take precedence over the compiled documents.

The Consultant hereby covenants with the IWAI to complete and maintain the "Works" in conformity in all respect, with the provisions of the agreement.

The IWAI hereby covenants to pay the Consultant in consideration of such completion of works, the contract price at the time and in the manner prescribed by the contract.

IN WITNESS WHEREOF the parties hereunto have set their hands and seals on the day year first written.

For and on behalf of
(Inland Waterways Authority of India)

For and on behalf of
Consultant

Signature _____

Signature _____

Name & Designation _____

Name & Designation _____

Stamp

Stamp

Witness:

Witness:

1) Signature _____

1) Signature _____

2) Name & Designation _____ 2)

Name & Designation _____

SECTION: 14.0

BANK GUARANTEE PROFORMA FOR FURNISHING
PERFORMANCE GUARANTEE

To

The Chairman

Inland Waterways Authority of India A-13, Sector-1, Noida - 201301

In consideration for the Chairman, Inland Waterways Authority of India hereinafter called 'the Authority' having agreed, under the terms and conditions of the Agreement dated made between..... and ...for the due fulfilment of the said Agreement by the Consultant of the terms and conditions contained in the said Agreement, on production of Bank Guarantee for Rs..... (Rupees.....) at the request of..... Consultant(s), We (Bank) do hereby undertake to pay to the Authority an amount not exceeding Rs..... against any loss or damage caused to or suffered, or would be caused to or suffered by the Authority by reason of any breach of the said Consultant(s) of any of the terms or conditions contained in the said Agreement.

2. We..... do hereby undertake to pay the amount due and payable under this Guarantee without any demur, merely on a demand from the Authority stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the authority by reason of breach by the said Consultant(s) of any of the terms or conditions contained in the said Agreement or by reason of the Consultant(s)'s failure to perform the said Agreement,. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.....

3. We undertake to pay the authority any money so demanded notwithstanding any dispute or disputes raised by the Consultant(s) / suppliers(s) in any suit or proceeding pending before any court or Tribunal relating thereto liability under this present being absolute and unequivocal.

The payment so made by us under this Bond shall be valid discharge of our liability for payment there under and the Consultant(s) / supplier(s) shall have no claim against us for making such payment.

4. We, further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the Authority under or by virtue of the said Agreement have been fully and its claim satisfied or discharge or till..... Certify that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contactor(s) and accordingly discharges this Guarantee after..... years from the date of completion of the said contract unless a demand or claim under this Guarantee is served in writing on the bank but before the expiry of the said period of years in which case it shall be enforceable against the bank notwithstanding the fact that the same is enforced after the expiry of the said period of years.

5. We,.....further agree with the Authority that the Authority shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said Consultant(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Authority against the said Contactor(s) and to forbear or enforce any of the terms and

conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Consultant(s) or for any forbearance, act or omission on the part of the Authority or any indulgence by the Authority to the said Consultant(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for the provision, have effect of so relieving us.

6. It shall not be necessary for the Authority to proceed against the Consultant before proceeding against the Bank and the Guarantee herein contained shall be enforceable against the Bank notwithstanding any security which the Authority may have obtained or obtain from the Contactor shall at the time when proceedings are taken against the Bank hereunder be outstanding or unrealized.

7. Notwithstanding anything contained herein above our liability under the guarantee is restricted to Rs..... and shall remain in force until..... Unless a claim or suit under this guarantee is filed with us on or before..... ALL OUR RIGHTS UNDER THE GUARANTEE SHALL BE FORFEITED and the bank shall be relieved and discharged from all liabilities therein.

8. This Guarantee will not be discharged due to the change in the constitution of the Bank or the Consultant(s) / supplier(s).

9. We,..... lastly undertake not to revoke this Guarantee during its currency except with the previous consent of the Authority in writing.

Dated thedate of.....200...

for.....

(indicate the name of Bank)

Signature.....

Name of the Officer.....

(in Block Capitals)

Designation of

Code No.....

Name of the Bank and Branch.

APPENDIX-I (A): Power of Attorney for Lead Member of Consortium

(To be executed on Non-Judicial Stamp Paper of Rs.100 and duly notarised. For a Power of Attorney executed and issued overseas, the document will also have to be legalised by the Indian Embassy and notarized in the jurisdiction where the undertaking is being issued.)

Whereas the Inland Waterways Authority of India (the "Authority") has invited Bids from interested parties for the "**Consultancy Services for Technical Economic Feasibility Report for proposed development of Sunderbans Inland Waterways**" and Whereas,,
.....and (collectively the "Consortium") being Members of the Consortium are interested in bidding for the Project in accordance with the terms and conditions of the tender document and other connected documents in respect of the Project, and

Whereas, it is necessary for the Members of the Consortium to designate one of them as the Lead Member with all necessary power and authority to do for and on behalf of the Consortium, all acts, deeds and things as may be necessary in connection with the Consortium's Bid for the Project and its execution.

NOW THEREFORE KNOW ALL MEN BY THESE PRESENTS

We,having our registered office at, M/s.
having our registered office at, M/s. having our registered office at, and
..... having our registered office at, (hereinafter collectively referred to as the "Principals") do hereby irrevocably designate, nominate, constitute, appoint and authorise M/s having its registered office at, being one of the Members of the Consortium, as the Lead Member and true and lawful attorney of the Consortium (hereinafter referred to as the "Attorney"). We hereby irrevocably authorise the Attorney (with power to sub-delegate) to conduct all business for and on behalf of the Consortium and any one of us during the bidding process and, in the event the Consortium is awarded the contract, during the execution of the Project and in this regard, to do on our behalf and on behalf of the Consortium, all or any of such acts, deeds or things as are necessary or required or incidental to the pre-qualification of the Consortium and submission of its Bid for the Project, including but not limited to signing and submission of all, Bid and other documents and writings, participate in bidders and other conferences, respond to queries, submit information/ documents, sign and execute contracts and undertakings consequent to acceptance of the Bid of the Consortium and generally to represent the Consortium in all its dealings with the Authority, and/ or any other Government Agency or any person, in all matters in connection with or relating to or arising out of the Consortium's Bid for the **Consultancy Services for Technical Economic Feasibility Report for proposed development of Sunderbans Inland Waterways**.

AND hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us/ Consortium and shall be legally binding upon us/Consortium.

IN WITNESS WHEREOF WE THE PRINCIPALS ABOVE NAMED HAVE EXECUTED THIS
POWER OF ATTORNEY ON THIS DAY OF 2016

For (Signature)
..... (Name & Title)

For (Signature)
..... (Name & Title)

For (Signature)
..... (Name & Title)

Witnesses:

- 1.
- 2.

.....

(Executants)

(To be executed by all the Members of the Consortium) **Notes:**

- *The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executants and when it is so required, the same should be under common seal affixed in accordance with the required procedure.*
- *Also, wherever required, the Bidder should submit for verification the extract of the charter documents and documents such as a board or shareholders' resolution/ power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Bidder.*
- *For a Power of Attorney executed and issued overseas, the document will also have to be legalised by the Indian Embassy and notarised in the jurisdiction where the Power of Attorney is being issued. However, the Power of Attorney provided by Bidders from countries that have signed the Hague Legislation Convention 1961 are not required to be legalised by the Indian Embassy if it carries a conforming Apostil certificate.*

APPENDIX-I (B): Financial Capacity of the Bidder

(of Single Entity Bidder/ Members of Consortium)

(In Rs. crore)

(1) S.no	(2) Name of the Bidder/Associate/ consortium member	(3) Equity Capital	(4) Reserves and Surplus	(5) Less: Revaluation Reserve	(6) Less: Intangible Assets	(7)=(3)+(4)-(5)- (6) Total Tangible Net worth (As on March 20_____)
	Single Bidder					
	Member 1					
	Member 2					
	Member 3					
	Total of all members					

TURNOVER:

Financial Year	Annual Turnover (in Rs. Crores)
2014-15	
2013-14	
2012-13	

Signature _____
Name _____
Designation _____
Company _____
Date _____

A Bidder consisting of a single entity should fill in details as per the row titled Single entity Bidder and ignore the rows titled Consortium Members. In case of a Consortium, row titled Single entity Bidder may be ignored.

The Bidder should provide details of its own Financial Capability or of an Associate under clause 5.1 (f). If Financial Capacity of an Associate is submitted, a Certificate from Statutory Auditors as per format provided in Appendix-I (E) shall be provided.

Instructions:

1. The Bidder/ its constituent Consortium Members shall attach copies of the balance sheets, financial statements and Annual Reports for 3(three) financial years preceding the Bid Due Date. The financial statements shall:
 - (a) Reflect the financial situation of the Bidder or Consortium Members and its/ their Associates where the Bidder is relying on its Associate's financials;
 - (b) Be audited by a statutory auditor;
 - (c) Be complete, including all notes to the financial statements; and
 - (d) Correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).
2. Net Worth shall mean (Subscribed and Paid-up Equity + Reserves) less (Revaluation reserves + miscellaneous expenditure not written off + reserves not available for distribution to equity shareholders).
3. In the case of a Consortium, a copy of the Jt. Bidding Agreement shall be submitted in accordance with Clause 5.1 (e) of the tender document.
4. The Bidder shall also provide the name and address of the Bankers to the Bidder.
5. **The Bidder shall provide an Auditor's Certificate specifying the net worth/turnover of the Bidder and also specifying the methodology adopted for calculating such net worth in accordance with Clause 5.1 (h) of the tender document.**

APPENDIX-I (C): Statement of Legal Capacity

(To be forwarded on the letterhead of the Bidder/ Lead Member of Consortium)

Ref. Date:

To,
Hydrographic Chief
Inland Waterways Authority of India
A-13, Sector-1,
NOIDA – 201 301
Uttar Pradesh
India

Dear Sir,

We hereby confirm that we/ our members in the Consortium (constitution of which has been described in the Bid) satisfy the terms and conditions laid out in the tender document.

We have agreed that (insert member's name) will act as the Lead Member of our consortium.*

We have agreed that (insert individual's name) will act as our representative/ will act as the representative of the consortium on its behalf* and has been duly authorized to submit the tender document. Further, the authorised signatory is vested with requisite powers to furnish such letter and authenticate the same. All actions/representations of the Lead Member/Authorised Signatory shall be legally binding on the Consortium.

Thanking you,

Yours faithfully,

(Signature, name and designation of the authorised signatory)

For and on behalf of.....

**Please strike out whichever is not applicable.*

APPENDIX-I (D): Joint Bidding Agreement
(To be executed on Stamp paper of appropriate value)

THIS JOINT BIDDING AGREEMENT is entered into on this the day of 20...

AMONGST

1. {..... Limited, a company incorporated under the Companies Act, 1956} and having its registered office at (hereinafter referred to as the “**First Part**” which expression shall, unless repugnant to the context include its successors and permitted assigns)

AND

2. {..... Limited, a company incorporated under the Companies Act, 1956} and having its registered office at (hereinafter referred to as the “**Second Part**” which expression shall, unless repugnant to the context include its successors and permitted assigns)

The above mentioned parties of the FIRST and SECOND PART are collectively referred to as the “**Parties**” and each is individually referred to as a “**Party**”

WHEREAS,

- (A) Inland Waterways Authority of India (the “**Authority**”), has invited Bids (the “**Bids**”) by its Request for Bid dated (The “**tender Document**” for “**Consultancy Services for Technical Economic Feasibility Report for proposed development of Sunderbans Inland Waterways**” (the “**Project(s)**”) through public private partnership.
- (B) The Parties have read and understood the TENDER Document and are interested in jointly bidding for the Project as members of a Consortium and in accordance with the terms and conditions of the TENDER document and other TENDER documents in respect of the Project, and
- (C) It is a necessary condition under the TENDER document that the members of the Consortium shall enter into a Joint Bidding Agreement and furnish a copy thereof with the Bid.

NOW IT IS HEREBY AGREED as follows:

1. Definitions and Interpretations

In this Agreement, the capitalised terms shall, unless the context otherwise requires, have the meaning ascribed thereto under the TENDER.

2. Consortium

- 2.1 The Parties do hereby irrevocably constitute a consortium (the “**Consortium**”) for the purposes of jointly participating in the Bidding Process for the Project.
- 2.2. The Parties hereby undertake to participate in the Bidding Process only through this Consortium and not individually and/ or through any other consortium constituted for this Project, either directly or indirectly or through any of their Associates.

3. Covenants

The Parties hereby undertake that in the event the Consortium is declared the Preferred Bidder and awarded the Project, it shall incorporate a wholly owned special purpose company under the provisions of Indian Companies Act, 1956, as the O&M Consultant; in whose subscribed and paid up capital, the Preferred Bidder i.e. the parties herein shall collectively hold 100% equity during the License Period.

4. Role of the Parties

The Parties hereby undertake to perform the roles and responsibilities as described below:

- (a) Party of the First Part shall be the Lead member of the Consortium and shall have the power of attorney from all Parties for conducting all business for and on behalf of the Consortium during the Bidding Process and until the signing of the **Consultancy service for Technical Economic Feasibility Report for proposed Sunderbans Inland Waterways when all the obligations shall become effective;**
- (b) Party of the Second Part shall be assisting the Lead member in the manner as recorded herein for carrying out the entire scope of work awarded under the **Consultancy service for Technical Economic Feasibility Report for proposed Sunderbans Inland Waterways when all the obligations shall become effective.**
- (c) Parties shall jointly and severally endeavour to carry out the works, if awarded to them pursuant to the bidding process conducted by the Authority, in accordance with the terms and conditions specified in the TENDER Documents and such other agreements/Contracts/Work Orders as may be executed from time to time between the Authority and the Consortium's Special Purpose Company.

5. Joint and Several Liability

The Parties do hereby undertake to be jointly and severally responsible for all obligations and liabilities relating to the Project and in accordance with the terms of the TENDER and the **Consultancy service for Technical Economic Feasibility Report for proposed Sunderbans Inland Waterways when all the obligations shall become effective**, till such time as prescribed in accordance with the **Consultancy service for Technical Economic Feasibility Report for proposed Sunderbans Inland Waterways when all the obligations shall become effective.**

6. Shareholding

- 6.1 The Lead Member of such Preferred Bidder consortium shall at all time during the License Period hold equity equivalent to at least 51% of the subscribed and paid up capital in the special purpose company incorporated by the parties to work as the Consultant. Further, other consortium members whose technical/financial eligibility shall have been used for the purpose of qualification under this TENDER shall hold at least 15% equity in the subscribed and paid up capital Consultant during the License Period; Provided however that Authority may in its sole and absolute discretion permit a consortium member to divest [in full/partially] its equity shareholding in the subscribed and paid up capital of the Consultant.

6.3 The Parties undertake that they shall comply with all equity lock-in requirements set forth in the **Consultancy service for Technical Economic Feasibility Report for proposed Sunderbans Inland Waterways when all the obligations shall become effective**

7. Representation of the Parties

Each Party represents to the other Parties as of the date of this Agreement that:

- (a) Such Party is duly organized, validly existing and in good standing under the laws of its incorporation and has all requisite power and authority to enter into this Agreement;
- (b) The execution, delivery and performance by such Party of this Agreement has been authorized by all necessary and appropriate corporate or governmental action and a copy of the extract of the charter documents and board resolution/ power of attorney in favour of the person executing this Agreement for the delegation of power and authority to execute this Agreement on behalf of the Consortium Member is annexed to this Agreement, and will not, to the best of its knowledge:
 - (i) Require any consent or approval not already obtained;
 - (ii) Violate any Applicable Law presently in effect and having applicability to it;
 - (iii) Violate the memorandum and articles of association, by-laws or other applicable organizational documents thereof;
 - (iv) Violate any clearance, permit, concession, grant, license or other governmental authorization, approval, judgment, order or decree or any mortgage agreement, indenture or any other instrument to which such Party is a party or by which such Party or any of its properties or assets are bound or that is otherwise applicable to such Party; or
 - (v) Create or impose any liens, mortgages, pledges, claims, security interests, charges or Encumbrances or obligations to create a lien, charge, pledge, security interest, encumbrances or mortgage in or on the property of such Party, except for encumbrances that would not, individually or in the aggregate, have a material adverse effect on the financial condition or prospects or business of such Party so as to prevent such Party from fulfilling its obligations under this Agreement;
- (c) This Agreement is the legal and binding obligation of such Party, enforceable in accordance with its terms against it; and
- (d) There is no litigation pending or, to the best of such Party's knowledge, threatened to which it or any of its Affiliates is a party that presently affects or which would have a material adverse effect on the financial condition or prospects or business of such Party in the fulfilment of its obligations under this Agreement.
- (e) Such Party has read and understood the tender Documents and is executing this Agreement for the purposes as recorded hereinabove out of its own free will;

8. Termination

This Agreement shall be effective from the date hereof and shall continue in full force and effect at all times during the subsistence of the **Consultancy service for Technical Economic Feasibility Report for proposed Sunderbans Inland Waterways when all the obligations shall become effective** Contract is achieved under and in accordance with the **Consultancy Services for Technical Economic Feasibility Report for proposed development of Sunderbans Inland Waterways** when all the obligations shall become effective, in case the Project is awarded to the Consortium. However, in case the Consortium is either not prequalified for the Project or does not get selected for award of the Project, the Agreement will stand terminated in case the Bidder is not pre-qualified or upon return of the Bid Security by the Authority to the Bidder, as the case may be.

9. Miscellaneous

9.1 This Joint Bidding Agreement shall be governed by laws of India.

9.2 The Parties acknowledge and accept that this Agreement shall not be amended by the Parties without the prior written consent of the Authority.

IN WITNESS WHEREOF THE PARTIES ABOVE NAMED HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN.

SIGNED, SEALED AND DELIVERED

For and on behalf of

For and on behalf of the LEAD MEMBER

(Signature)

(Name)

(Designation)

(Address)

SIGNED, SEALED AND DELIVERED

For and on behalf of

For and on behalf of SECOND PART

(Signature)

(Name)

(Designation)

(Address)

In the presence of:

1) _____

2) _____

Notes:

- *The mode of the execution of the Joint Bidding Agreement should be in accordance with the procedure, if any, laid down by the Applicable Law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.*
- *Each Joint Bidding Agreement should attach a copy of the extract of the charter documents and documents such as resolution / power of attorney in favour of the person executing this Agreement for the delegation of power and authority to execute this Agreement on behalf of the Consortium Member.*
- *For a Joint Bidding Agreement executed and issued overseas, the document shall be legalised by the Indian Embassy and notarized in the jurisdiction where the Power of Attorney has been executed.*

APPENDIX-I (E): Technical Capacity of the Bidder

Applicant type#	Name of the Assignment (Eligible Project Experience)	Client (Entity by /for which the project was developed/ operated & managed)	Nature of association (Role of the Bidder/Member/Associate, Provide detailed role of the Bidder/Member/Associate)	Start date and date of completion	Name of the entity who has implemented this Project. (If the entity is other than the Bidder, Provide relation with the Bidder whether Associate/ Member of the Consortium, etc.)
Single Entity Applicant					
Consortium					
Member 1					
Member 2					
Member 3					
Associate					

Certificate of Statutory Auditor (in case of Operator)

Based on the authenticated record of the company, this is to certify that the (Name of the Bidder /Member/Associate) was responsible for operation and management of eligible projects as per clause 5.0 of the tender and as per the details provided above during the last five financial years preceding the Bid Due Date

Name of the audit firm:

Seal of the audit firm: (Signature, name and designation of the authorised signatory). Date:

Certificate from the Statutory Auditor (in case of Project Owner)

Based on its books of accounts and other published information authenticated by it, this is to certify that (name of the Bidder/Member/Associate) is/ was an equity shareholder in (title of the project company) and holds/ held Rs. cr. (Rupees crore) of equity (which constitutes% of the total paid up and subscribed equity capital) of the project company from (date) to (date).

Name of the audit firm:

Seal of the audit firm: (Signature, name and designation of the authorised signatory)

Date:

Notes:

- Bidders are expected to provide information in respect of Eligible Projects in this Annex. The projects cited must comply with the eligibility criteria specified in Clause 5.0 of the tender. Information provided in this section is intended to serve as a back-up for information provided in the Bid. Bidders should also refer to the Instructions below
- Experience for any Eligible Project shall not be claimed by two or more Members of the Consortium. In other words, no double counting by a consortium in respect of the same experience shall be permitted in any manner whatsoever.
- Certificate from the Bidder's statutory auditor (in case of owner/operator) must be furnished as per formats above for Eligible Projects. In jurisdictions that do not have statutory auditors, the auditors who audit the annual accounts of the Bidder/ Member/Associate may provide the requisite certification.
- Appropriate documentary proof (in case of operator /contract) like certificate from respective clients , work orders, completion certificate shall be submitted in this regard substantiating the claims of the bidder under Technical Capacity
- Certificate of Incorporation of Project Company along with certified copies of the audited financial results for last three financial years preceding the Bid Due Date in case experience is claimed as an Owner and/or operator
- In case of operator only, duly notarized Certificate of Incorporation of the owner company (client)
- Provide details of only those projects that have been undertaken by the Bidder under its own name and/ or by an Associate specified in Clause 5.0.
- # A Bidder consisting of a single entity should fill in details as per the row titled Single entity Bidder and ignore the rows titled Consortium Member. In case of a Consortium, the row titled Single entity Bidder may be ignored. In case credit is claimed for an Associate, necessary

evidence to establish the relationship of the Bidder with such Associate, in terms of Clause 5.0, shall be provided.

In the event that credit is being taken for the Eligible Experience of an Associate, as defined in Clause 5.0, the Bidder should also provide a certificate in the format below:

§

Certificate from Statutory Auditor/ Company Secretary regarding Associate

Based on the authenticated record of the company, this is to certify that more than 50% (fifty per cent) of the subscribed and paid up voting equity of (Name of the

£

Bidder/Consortium Member/ Associate) is held, directly or indirectly, by (Name of Associate/ Applicant/ Consortium Member). By virtue of the aforesaid share-holding, the latter exercises control over the former, who is an Associate in terms of Clause 5.0 of the tender.

A brief description of the said equity held, directly or indirectly, is given below:

{Describe the share-holding of the Bidder/ Consortium Member and the Associate. In the event the Associate is under common control with the Applicant/ Consortium Member, the relationship may be suitably described and similarly certified herein.}

Name of the audit firm:

Seal of the audit firm: (Signature, name and designation of the authorised signatory).

Date:

Notes:

- *It may be noted that in the absence of any detail in the above certificates, the information would be considered inadequate and could lead to exclusion of the relevant project in computation of Technical/Financial Capacity.*
- *§ In the event that the Bidder/ Consortium Member exercises control over an Associate by operation of law, this certificate may be suitably modified and copies of the relevant law may be enclosed and referred to.*
- *£ In the case of indirect share-holding, the intervening companies in the chain of ownership should also be Associates i.e., the share-holding in each such company should be more than 50% (fifty percent) in order to establish that the chain of "control" is not broken.*

ANNEXURE-I

SAMPLE FORM FOR SITE ORDERS BOOK

Reference Clause No. 16.4

Name of work Date of commencement/ period for completion.....

Sl. No.	Date	Remarks of the Inspecting Officer or Consultant	Action taken and by whom	Remarks
1	2	3	4	5

ANNEXURE-II

PROFORMA FOR HINDRANCE REGISTER

Reference Clause No. 16.5

Sl. No.	Nature of hindrance	Items of work that could not be due executed to this hindrance	Date of start of hindrance	Signature of Representative of EIC	Date of removal of hindrance	Overlapping period, if any	Net hindrance in days	Weightage of this hindrance	Net effective days of hindrance	Remarks of Engineer-in-Charge
1	2	3	4	5	6	7	8	9	10	11

ANNEXURE-III

Notice for appointment of Arbitrator [Refer Clause 41]

To,

The Chairman, IWAI

.....
.....

Dear Sir,

In terms of clause 41 of the agreement, particulars of which are given below, I/we hereby give notice to you to appoint an arbitrator for settlement of disputed mentioned below:

1. Name of applicant
2. Whether applicant is Individual/Prop. Firm/Partnership Firm/Ltd. Co.
3. Full address of the applicant
4. Name of the work and contract number in which arbitration sought
5. Name of the Division which entered into contract
6. Contract amount in the work
7. Date of contract
8. Date of imitation of work
9. Stipulated date of completion of work
10. Actual date of completion of work (if completed)
11. Total number of claims made
12. Total amount claimed
13. Date of intimation of final bill (if work is completed)
14. Date of payment of final bill (if work is completed)
15. Amount of final bill (if work is completed)
16. Date of request made to Chief Engineer for decision
17. Date of receipt of Chief Engineer's decision
18. Date of appeal made to Chairman, IWAI
19. Date of receipt of the decision of Chairman, IWAI

Specimen signatures of the applicant

(only the person/authority who
signed the contract should sign)

I/We certify that the information given above is true to the best of my/our knowledge. I/We enclose following documents.

- 1.Statement of claims with amount of claims

- 2.
- 3.
- 4.

Yours faithfully

(Signatures)

Copy in duplicate to:

1. The Hydrographic Chief, IWAI

ANNEXURE- IV

1. TRAFFIC TEMPLATE

Consultants shall supply the following outputs for each waterway investigated.	
Item	Guidance
The Catchment baseline	Describe local economic geography in a reasonably defined potential IWT catchment area including main urban settlements, populations, economic activities, major industries, and accessibility connectivity to road and rail networks, specific relevant developments (e.g. new power houses under active planning). Provide a clear scaled map of such catchment area with named towns/subjects marked relative to waterway.
The Navigation baseline	Describe existing waterway usage including country-boat or commercial use (if any) in general terms, drawing attention to any significant existing IWT flows, market limitations (e.g. seasonal water constraints). Note any permanent IWT infrastructure in place e.g. jetties, barrages. Also major constraints (e.g. unlocked dams/inadequate bridge clearances)
The Market baseline	Disaggregate and investigate potential markets on a commodity basis within the realistic catchment area of the waterway: <ul style="list-style-type: none"> • Bulk and semi-bulk: coal, Ores, Grains, Cement, Sand & gravel: Oil products: Iron & steel: Fertilizers and chemicals; Forestry products: other as relevant • General cargo: • Containers (only on waterways connecting into container ports) Identify origins/destinations as far as possible for the major industries and movements that might realistically be transferable to IWT, especially for bulk traffics. Specify identifiable companies or state enterprises involved in the catchment area.
Forecasting years	Provide total market and IWT share projections for 2020, 2030, 2040 and 2050 by commodity
Presentation of forecasts	Present as total freight tons and tons-km by total, and by major waterway section and direction (tabular and chart). Section should be selected to reflect discreet points of major variation in traffic flow (freight sources or sinks) or be related to staging options. Commodity breakdown of these forecasts to be provided.
Market success factors	Discussion of the required fairway availability and reliability required in the specific markets, generic vessel types and capacities, fleet capacity, loading/discharge points, complementary investments into e.g. connecting modes where these are remote from waterway etc.
Forecasting Methodology	Provide clear description allowing replication of forecasts from data and assumptions made, justify assumptions. Qualify data gaps. Traffic projections should be consistent with the specific IWT upgrading scheme (s) investigated or proposed, taking account of operating costs of barges of size proposed vis a vis alternative mode.
Alternative forecasts	Provide where relevant if there are alternative project options or staging options

2. PROJECT COSTING TEMPLATE

Consultants shall supply the following outputs for each waterway project investigated/evaluated.		
Cost type	Cost categories	Components to be itemized
Capital costs	Waterway Infrastructure	<ul style="list-style-type: none"> • Land, compensation and resettlement • Capital dredging • River training/bank protection • Locks • Barrages • Channel market • Night navigation • Other
	Terminal Infrastructure	<ul style="list-style-type: none"> • Fixed infrastructure: berths, moorings, hard-standing etc. (itemized) • Loading/uploading and other equipment (itemized) • Buildings • Other
Operation and maintenance (O & M) costs	Waterways	<ul style="list-style-type: none"> • Maintenance dredging • Markings and nav.-aids • Bank maintenance • Other
	Terminals	<ul style="list-style-type: none"> • Terminal operations • Terminal maintenance • Other
	Vessel: (NB vessel operating costs/tons-km fall sharply with larger capacity vessel, when there is sufficient traffic to utilize them)	<ul style="list-style-type: none"> • Crew • Fuel • Maintenance • Registration & insurance • Fees and charges • Vessel capital amortization (or leasing cost equivalent) • Total costs • (Cost/tons-km for use in evaluation)
Recurrent costs	Periodic major capital costs that may occur over life of assets	
Price levels	All costs to be expressed in mid-2014 price levels. Costs derived from other years to be indexed to 2014 price levels	
Value engineering	Not all investments will be necessary in all projects. Value engineering should be applied to project scoping and specification to avoid 'gold-plating' of costs and undermining viability of project.	
Cost verification	Costs that are estimated on a 'bottom-up' basis should be verified or tested for reasonableness against actual costs for such activities evidenced in the market place	

Annexure- VI

3. FINANCIAL EVALUATION TEMPLATE

Consultants shall adhere to the following standard approaches in estimating financial internal rate of return (FIRR) and payback period.	
Item	Requirements
Objective	To assess financial internal rates of return and financial payback periods on a consistent basis between different river projects.
Financial evaluation approach	Financial evaluation of each river upgrading project should estimate and present actual cash flows (cost and revenues) at market prices within the inland waterway sector consisting of the three sub-sectors: (a) navigation infrastructure; (b) terminal operations; (C) barging operators.
Disaggregation	Cash flow streams and FIRR's to be provided for the inland waterway sector as a whole and also functionally disaggregated by the three sub-sectors. (The separation should be made even if in practice IWAI or another stakeholder might be involved in multiple sub-sectors). Pay –back should be estimated on a total sector basis.
Transfers between Sub-sectors	Cash flows between the three sectors (such as navigation charges, or terminal charges) should be shown as a negative cash flow to the paying sub-sector and a positive cash flow to receiving sub-sector so that the net cash flows to each sub-sector are best estimates of actual out-turn.
Incremental barging operations	Where the waterway is an extension of a bigger network, with through working of barges, it is the incremental costs and incremental revenue to barge operators of using the project waterway that should be included.
Cash flows in real terms	All financial variables and projections to be made in constant mid-2015 price levels (i.e. net of inflation)
Evaluation period	Initial construction period, plus 25 years of operation
FIRR and payback period	Estimate both FIRR (sector and sub-sectors) and overall sector payback period, the latter being the year in which the cumulative sector each flows becomes positive.
Ramp-up period	Unless good reasons otherwise, assume 4 years ramp-up period from first operational year to long-term 'trend' levels of traffic
Commentary on FIRR	Explain overall sector FIRR results and distribution between sub-sectors. Identify main drivers of the results and sensitivity to assumptions
Risks to financial out-turn	Identify main risks to the estimated project out-turn or viability and their underlying causes e.g. market risks (traffic, tariffs, and competition), hydrology risks, engineering risks, operational risks etc.
Checking and Replicability	Apply systematic check of spreadsheets and logic trail from assumptions to outputs. Include in report and annexes such data, assumptions and spreadsheet calculations as are necessary for a reader to comprehend and if necessary replicate the results presented.

Annexure-VII

4. ECONOMIC EVALUATION TEMPLATE

Consultants shall adhere to the following standard approaches in estimating economic internal rate of return (EIRR)	
Item	Requirements
Objective	To assess economic internal rates of return (EIRR) on a consistent basis between different river projects.
Economic evaluation approach	Economic evaluation of each river upgrading project may include: <ul style="list-style-type: none"> • Capital and O & M costs of (a) navigation infrastructure and (b) terminals • Savings in transport resource costs between IWT and rail and/or road transport • Reduced barge operating costs (where the project facilitates more efficient sizes or operations of an existing barging operation) • Savings in road/rail accident costs • Saving in carbon emissions
Standard values	To ensure consistency between evaluations of different waterways the following should be used: <ul style="list-style-type: none"> • Road haulage costs: INR 2/tons-km • Rail haulage costs: INR 1/tons-km • IWT haulage costs: to be estimated by the studies depending on optimal barge size and configuration assumed for the specific waterway project • Road accident cost savings: INR 0.2/net tons -km/transferred to IWT • Rail accident costs savings INR 0.1/net tons-km/transferred to IWT • Carbon savings INR 0.1/tons-km transferred from road (till for transfer from rail)
Other benefits	Other significant regional economic benefits such as stimulation of specific production may be described, and value of increased production included in EIRR if it can be properly substantiated.
Cash flows in real terms	All economic variables to be estimated in constant mid-2015 price levels (i.e. net of inflation)
Resource cost adjustments	Market prices may be taken as equivalent to resource costs for the purposes of the economic evaluation except for nominated items (to be confirmed)
Evaluation period	Initial construction period plus 25 years of operation with ramp-up consistent with financial evaluation.
EIRR	Estimate Overall EIRR. Give commentary explaining results, main costs and benefits, main drivers of the results and sensitivity to assumptions.
Checking and Replicability	Apply systematic checks of spreadsheets and logic trail from assumptions to outputs. Include in report and annexes such data, assumptions and spreadsheet calculations as are necessary for a reader to comprehend and if necessary replicate the results presented.

Annexure-VIII

ENVIRONMENTAL & SOCIAL SCREENING TEMPLATE

Consultants shall provide the following information for each waterway project investigated / evaluated.

Screening Question	Yes	No	Details / Remarks
1. Is the project located in whole or part in / near any of the following Environmentally Sensitive Area? If yes, please provide the name and distance from the project site.			
a) National Park			
b) Wildlife/ Bird Sanctuary			
c) Tiger or Elephant Reserve			
d) Biosphere Reserve			
e) Reserved/Protected Forest			
f) Wetland			
g) Important Bird Areas			
h) Mangroves Areas			
i) Estuary with Mangroves			
j) Areas used by protected, important or sensitive species of fauna for breeding, nesting, foraging, resting, over wintering, migration			
k) World Heritage Sites			
l) Archaeological monuments/ sites (under ASI's Central / State list)			
2. Is the project located in whole or part in / near any Critically Polluted Areas identified by CPCB?			
3. Is, there any defence installations near the project site?			
4. Whether there is any Government Order/ Policy relevant / relating to the site?			
5. Is the project involved clearance of existing land, vegetation and			

Screening Question	Yes	No	Details / Remarks
buildings?			
6. Is the project involved dredging?			
7. Is the project area susceptible to natural hazard (<i>earthquakes, subsidence, erosion, flooding, cyclone or extreme or adverse climatic conditions</i>)			
8. Is the project located in whole or part within the Coastal Regulation Zone?			
9. Is the project involved any demolition of existing structure?			
10. Is the project activity require acquisition of private land?			
11. Is the proposed project activity result in loss of direct livelihood / employment?			
12. Is the proposed project activity affect schedule tribe/ caste communities?			

S. N .	Result of Screening Exercise	(Yes / No)
1.	Environment Impact Assessment is Required	
2.	CRZ Clearance is Required	
3.	Environmental Clearance is Required	
4.	Forest Clearance is required	
5.	Wildlife Clearance is required	
6.	NOC from SPCB is required	
7.	Social Impact Assessment is Required	
8.	Abbreviated RAP is required	
9.	Full RAP is required	
10.	Any other clearance is required	