

GOVERNMENT OF ASSAM
ASSAM INLAND WATER TRANSPORT DEVELOPMENT SOCIETY (AIWTDS)

SPECIFIC PROCUREMENT NOTICE
REQUEST FOR EXPRESSIONS OF INTEREST
(CONSULTING SERVICES – FIRMS SELECTION)

Country: INDIA

Name of Project: ASSAM INLAND WATER TRANSPORT PROJECT [AIWT Project]

Loan No./Credit No./Grant No.: IBRD-P4830

Assignment Title: Appointment of Technical Services and Supervision Consultant (TSSC) firm for providing consulting services for Construction of terminal and riverine infrastructure at Aphalamukh, Assam

Reference No. (as per Procurement Plan): IN-IWT-201063-CS-QCBS

The Government of India *has obtained* financing from the World Bank toward the cost of the AIWT Project and intends to apply part of the proceeds for consulting services.

The AIWTDS intends to develop state of the art Inland Waterway Transport (IWT) Terminal at Aphalamukhat Majuli Island (the “Terminal”). This would be a major landmark for the entire AIWT Project. The state-of-the-art terminals shall include Terminal complex with required facilities and amenities provisions for berthing, boarding & de-boarding of passengers/loading & unloading of cargo, bank protection, navigation aids and other auxiliary support systems.

The Technical Services and Supervision Consultancy services (the “Services”) include:

- a) Bid process management for selection of Contractor(s) and execution of contract(s);
- b) Monitoring quality, cost, time schedule and environmental/ safety supervision aspects of the project
- c) Acting on behalf of AIWTDS to implement the project, undertake necessary checks on all aspects of works and submit periodic weekly/fortnightly/monthly reports.
- d) Checking the quantity of work done and certify the correctness of bills submitted by the contractor(s) for payment by AIWTDS.
- e) Overall contract management and administration services
- f) Ensuring that all the key entities including contractors/consultants are effectively and adequately fulfilling their designated role in implementation of EMP requirements in a timely and effective manner. This monitoring shall be on-going throughout the

project lifecycle in order to ensure that environmental impacts are within the predicted levels and that specified environmental performance targets are being achieved.

- g) Making use of available documents, reports, and interactions with AIWTDS officials and other implementing agencies, PAPs /PAFs and service users during the monitoring process; checking compliance w.r.t. the RAP, IPDP& SMP document and other associated safeguard plans; and flagging any outstanding issues which may affect the quality or pace of the implementation process from social & / or regulatory requirements. The Consultant will also to ascertain satisfaction and concern regarding the implementation process. One of the important tasks of the Consultants shall be to verify whether the pre-construction tasks and statutory/regulatory clearances are completed prior to the handing over of the encumbrance free site areas to the Contractors for initiating construction work- For instance compensation payment to the affected people shall be completed prior to begin civil work. The consultants shall provide options and advice in accordance to the policy provisions on any additional land acquisition or resettlement impacts encountered during the implementation.
- h) Ensuring that all relevant environmental and social (E&S) obligations and legal remedies are included in contracts and require that relevant E&S obligations are included by contractors in their sub-contracts.

The detailed Terms of Reference (TOR) for the assignment *are attached to this request for expressions of interest.*

The AIWTDS now invites eligible consulting firms/organizations/institutions(the “Consultants”) to indicate their interest in providing the Services. and submit their Express of Interest (EoI) document with the information sought in this Request for Expression of Interest notice (REoI)Interested Consultants should provide information demonstrating that they have the required qualifications and relevant experience to perform the Services. The short-listing criteria are:

- i) The Consultant should have sound financial performance with average annual turnover of INR. 15 Cr or more for the last 3 years. (2017-2018 & 2018-2019, 2019-2020). This shall be substantiated by submitting Balance Sheet and Profit & Loss Statement/Annual Report.
- ii) The Consultant should be in business for atleast last seven years ending on 31.03.2020. The Consultant should submit the name, address, e-mail, telephone along with a note on the Ownership and organizational structure & core business area of the consulting. Certificate of Incorporation/ Registration certificate, Copies of PAN Card and GST registration may be submitted.
- iii) The Consultant must have at least 7 years proven experience in providing project management/ monitoring consultancy, technical support and supervision

consultancy for construction of marine or riverine infrastructure. A list of details of the assignments may be submitted.

- iv) The Consultant shall, in the last five-year period, successfully completed at least 2 assignments in project management/monitoring, technical support and supervision consultancy for construction of marine or riverine infrastructure of construction cost of minimum of INR 200 crores in a single project.

Evidence of the successful completion shall be provided. This shall include the purchase order, scope of work, completion certificate/copy of final bill. The Consultant shall also include client's name and the contact details.

Substantially completed projects whose financial completion is \geq 80% of the contractual value shall also be considered. The bidder shall submit auditor's certificate/client certificate certifying the financial progress of the assignment.

The Consultant must have an in-house technical team and expert staff available to execute the required technical services and supervision consultancy. A short write-up on technical and managerial capability of the firm. A one pager CV for the proposed Key Expert positions can be submitted for the purpose. However, the Key Experts will not be evaluated at the short-listing stage.

A Consultant will be selected in accordance with the Quality and Cost Based Selection [QCBS] method set out in the Procurement Regulations. The attention of interested Consultants is drawn to Section III, paragraphs, 3.14, 3.16, and 3.17 of the World Bank's "Procurement Regulations for IPF Borrowers" July 2016, Revised November 2017 and August 2018 ("Procurement Regulations"), setting forth the World Bank's policy on conflict of interest. The attention of interested Consultants is drawn to Section III, paragraphs, 3.14, 3.16, and 3.17 of the World Bank's "Procurement Regulations for IPF Borrowers" July 2016 ("Procurement Regulations"), setting forth the World Bank's policy on conflict of interest.

A Firm/Agency or an individual Debarred by the World Bank in accordance with the anticorruption guidelines shall be ineligible for this Assignment in any form or way. A list of debarred firms and individuals is available at the Bank's external website: www.worldbank.org/debarr

The Consultant shall note that:

1. AIWTDS reserves the right to reject any or all EoI's or cancel without assigning any reason whatsoever and in such case no bidder / intending bidder shall have any claim arising out of such action.
2. Issuance or downloading of Bidding Documents to any Bidder shall not construe that such Bidder is considered to be qualified.

The REoI document is available online on website www.assamtenders.gov.in, www.iwtdirectorate.assam.gov.in. and www.aiwtdsociety.in. Consultant will be required to register on the website www.assamtenders.gov.in for uploading the REoI. The Consultant would be responsible for ensuring that any addenda available on the website is also downloaded and incorporated.

Last date and time for Submission of REoI : 09-12-2020 at 14:00 hours
Time and date of opening of REoI : 09-12- 2020 at 16: 00 hours

For submission of the REoI, the Consultant is required to have Digital Signature Certificate (DSC) from one of the authorized Certifying Authorities authorised by Government of India for issuing DSC. Aspiring consultants who have not obtained the user ID and password for participating in e-procurement in this Project, may obtain the same from the website: www.assamtenders.gov.in .

REoI must be submitted online on www.assamtenders.gov.in on or before the deadline. Any modifications to REoI received outside e-procurement system will not be considered. If the office happens to be closed on the date of opening of the REoI as specified, the REoI will be opened on the next working day at the same time. The electronic bidding system would not allow any late submission of bids.

Other details can be seen in the REoI document. The AIWTDS shall not be held liable for any delays due to system failure beyond its control. Even though the system will attempt to notify the participants of any REoI updates, the AIWTDS shall not be liable for any information not received by the participants. It is the participants' responsibility to verify the website for the latest information related to this REoI.



Mr. Adil Khan, IAS,
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Further information can be obtained at the address above during office hours [1100hrs to 1700hrs].

Terms of Reference for appointment of TSSC (Technical Support Services Consultant) for successful implementation of Inland Water Transport (IWT) Terminal at Aphalamukh

1. BACKGROUND

- 1.1 Assam has approximately 1980 km of navigable waterways of which the most important for transport purposes are the Brahmaputra and Barak Rivers. The Brahmaputra River with a length of 891 Km between the Bangladesh Border and Sadiya, was declared National Waterway no. 2 by the Government of India in 1988, the development of its navigation infrastructure thereafter being the responsibility of the Inland Waterways Authority of India (IWAI). IWAI is currently aiming to maintain a navigable depth of 2.5m from Bangladesh Border to Neamati (629 Km), 2.0 m from Neamati – Dibrugarh (139 Km) and 1.5m from Dibrugarh – Sadiya. However, while IWAI is responsible for the navigation ‘fairway’ it does not have responsibility for operating water transport services. These services are provided by the State or local governments.
- 1.2 Both urban and rural ferry services are provided by the Directorate of Inland Waterway Transport Assam, and by country boat operators – typically small independent and informal private businesses. In addition to the 97 ferry service routes designated by the Directorate of IWT, there are numerous routes licensed by the local (village) and district councils. Other users of the river include the Central Inland Water Corporation Limited, security forces, tourist organizations and other private cargo operators.
- 1.3 The Directorate of Inland Waterway Transport Assam (DIWTA), established in 1958 and part of the Assam Transport Department, is responsible for developing, maintaining and regulating IWT services in the state. It also operates and maintains many of the passenger transport services, ferry terminals and navigation aids on both Brahmaputra and Barak Rivers. Headquartered in Guwahati, it has three divisional offices in Guwahati, Dibrugarh and Silchar; five sub-divisional offices in Guwahati, Goalpara, Jorhat, Dibrugarh and Hailakandi; and three commercial offices at Guwahati, Goalpara and Dibrugarh. It also has a Crew Training Centre at Guwahati. DIWTA currently has a total of about 4,330 regular staff.
- 1.4 In order to leverage the benefits of inland water transport, the Government of Assam wishes to transform the quality of inland water transport services and integrate high quality passenger and vehicle ferry services, and inland water freight transport into Assam’s wider

transport network system. The Government of Assam has applied for World Bank loan assistance to implement it's the Assam Inland Water Transport Project (AIWTP).

- 1.5 Under the AIWTP, the construction works for developing state of the art international standards' IWT Terminal at Aphalamukh (the “**Project**” or the “**Terminal**”) are proposed to be awarded and commence soon. The Detailed Project Report (DPR) and the bid document based on the DPR is under preparation. This would be a major landmark for the entire AIWTP.
- 1.6 The state of the art terminal under the Project shall include Terminal complex with required facilities and amenities, provisions for berthing, approach trestles and steel link spans with supporting structures to cater to high water level variations between HFL and LFL during the year, floating pontoons and facilities for boarding & de-boarding of passengers/loading & unloading of cargo, bank protection, navigation aids and other auxiliary support systems. In order to increase the last mile connectivity, approach road to terminals connecting nearby main roads may also be undertaken under this development.

2. PROJECT COMPONENT

- 2.1 Assam Inland Water Transport Development Society(AIWTDS) is the Project Management Unit (hereinafter called also the ‘**Employer**’) of Assam Inland Water Transport Project and it intends to engage a Technical Support Services Consultant (TSSC) for development of the Project as mentioned in Section 6 of this Terms of Reference. The TSSC will efficiently manage the entity appointed for undertaking the Project works (the “**Contractor**”) and provide assistance to successfully complete and deliver the Project (as defined in Section 6) on behalf of AIWTDS. TSSC shall ensure progress of the works and quality of deliverables by Contractor in implementation of the Project as per the WB guidelines and applicable Employer’s acts, rules and regulations. The TSSC will provide Technical Support Services (TSS)on technical, construction and advisory related matters for successful completion of the Terminal development works in Aphalamukh. Such services shall be in the form of on-site advisory and support services covering all critical aspects of the Project.
- 2.2 TSSC shall be a well-equipped and qualified firm to provide consultancy services in particular the works for engineering and execution, contract management, environmental and social (impact) management, work safety issue, works dispute resolution, overall project performance management of the Contractor(and all execution agencies under the Contractor) and reporting the same along with providing related operational support to AIWTDS/World Bank. The TSSC shall be responsible for day to day construction management, quality assurance and control , safety management and supervision services including review of engineering design, approval of materials and managing day to day construction at site / installation of all the works along with associated works as outlined in this document.

3. OBJECTIVE OF CONSULTANCY

- 3.1 The objective of this consultancy is to efficiently manage the contracts for construction works for the Project such that all activities envisaged for the Project are completed in agreed timeline, within budgeted cost & technical specifications and in full compliance with the World Bank guidelines and applicable Employer's acts, rules and regulations. The objective is also to ensure compliance to loan agreement covenants and to achieve project monitoring indicators and milestones as agreed-upon in the stipulated time frame.
- 3.2 The TSSC will be required to provide a team of suitably qualified experts covering the disciplines required for the consultancy for a period, including full-time and need based/ part time resource deployment, as specified in Section 11 of this ToR.
- 3.3 The following are the principal tasks envisaged under the TSSC services.
- 3.3.1 Design review and technical support
 - 3.3.2 Comprehensive project technical support as per the technical requirements including day to day supervision for ensuring progress, review of designs, quality and safety parameters as outlined for scope of Contractor, coordination and management with all stakeholders including Contractor and Consultants.
 - 3.3.3 Contract management and administration services
 - 3.3.4 Preparing Project Reports and reviewing / updating project activities, monitoring of work progress, suggest measures to make up delay in progress, process extension of time, if any.
 - 3.3.5 Ensuring compliance to quality and safety parameters for the Project
 - 3.3.6 Environmental impact management, land acquisition and social development / project impact management (including R&R matters), and MIS operational support

4. IMPLEMENTATION MECHANISM

- 4.1 AIWTDS will administer the Project and shall nominate one "Engineer in Charge" for the Project outlined in Section 6 of this TOR. TSSC shall act as "Engineer's Representative" of the "Engineer in Charge".
- 4.2 The "Engineer's Representative" for the Project shall be responsible for management of all project activities and shall make all engineering decisions at site during the implementation of the Contract, after requisite approvals of Engineer-In-Charge. The Resident Engineer of TSSC shall be responsible and report to respective Authorized official of AIWTDS for the Project. The Terminal and associated infrastructure under the Project shall have one Resident Engineer from TSSC posted at Terminal Site along with core and support team as per terms outlined in Section 11 of TOR.

4.3 The State Project Director, AIWTDS has charge of overall project administration. The Engineer-In-Charge will be the main interface between the Employer and TSSC. The Engineer-In-Charge shall regularly co-ordinate with and arrange for all submittals, deliverables from TSSC including but not limited to progress reports, design submittals, financial issues, risk management etc. to AIWTDS for managing and ensuring smooth functioning of Project Site within timelines, budget and agreed quality and safety parameters as outlined in Contract.

5. CONTRACT MANAGEMENT FRAMEWORK

The Engineer In-Charge and his assigned team from AIWTDS shall engage regularly with the TSSC for efficiently completing the various delivery items and regular coordination with TSSC at Project Site (s)/AIWTDS office. Frequent meetings between the AIWTDS, Directorate of Inland Water Transport (DIWTA), TSSC and representatives from World Bank at the Employer's office in Guwahati are foreseen during the period of Services. The project team will meet at least monthly and the TSSC through Engineer In-Charge will report progress to these meetings. During the entire period of Services, the TSSC shall interact closely with AIWTDS /DIWTA/ World Bank/ any other authorized representatives of the Employer to receive input and provide information sought by Employer.

6. EMPLOYER'S REQUIREMENTS: OVERVIEW

6.1 **Project:** Construction of Inland Water Transport (IWT) Ferry Terminal and supporting riverine infrastructure at Aphalamukh, located in Majuli Island of Assam

6.1.1 **Project Completion Time:** Estimated Project Completion time is 36 months.

6.1.2 All eligible Consultants shall have to participate in the competitive Request for Proposal (RFP) process for the Assignment.

7. DETAILED SCOPE OF TECHNICAL SUPPORT SERVICES CONSULTANT

The TSSC shall be responsible for effectively advising, assisting and acting on behalf of the AIWTDS when so authorized, effective project management and supervision of the Project. All references made herein with respect AIWTDS, various consultants as appointed, contractor etc. including AIWTDS are hereby collectively referred as "Stakeholders" in this TOR and the same should be read in relevant context as applicable to and involving concerned stakeholder for purpose of coordination and reporting to be undertaken by TSSC. The mechanism and mode of implementation along with contractual framework for executing this TOR and formal reporting structure involving all stakeholders is clearly explained in section 2 to 5 of TOR.

The quality of TSSC services for construction management and supervision at site should be of the standard expected under the Project Agreement with the World Bank.

The Project comprises of terminals and riverine infrastructure at Aphalamukh and the construction works are likely to commence in January 2021. The TSSC must ensure deployment of the Key-Experts proposed in the RFP for the duration of the Project. In certain unavoidable circumstances the Client may accept an alternative Key Expert having equal or better qualifications and experience than those of the originally proposed Key Expert. Non-compliance of this requirements may lead to termination of Contract at any time.

Overall the scope of the TSSC services shall be as indicated herein in Phase 1, Phase 2 and Phase 3but not limited thereto.

PHASE – 1

7.1 Bid Process Management

7.1.1 Task 1: Bid process management for selection of Contractor(s) and execution of contract(s)

- i. Provide inputs in the pre-bid meeting[s] and assist in the preparation/issuance of clarifications in response to pre-bid queries to the prospective bidders.
- ii. Prepare detailed roadmap and provide all necessary details in the evaluation of bids and checking of technical submission including any deviations or value engineering.
- iii. Assist in carrying out the technical evaluation of the bids and preparation of the Technical Evaluation Report as per the World Bank guidelines
- iv. Assist in carrying out the financial evaluation and analysis of the bids received and submission of the evaluation reports.
- v. Assist in finalization of notice of award/s, carrying out negotiation meeting and signing of the agreement with the selected contractor/s.

PHASE - 2

7.2 Project Preparation

- (i) Acquaint with all the work done, reports / documents prepared for this project i.e. Review existing reports / documents prepared for this project prior to appointment of TSSC.

- (ii) Review and comment on baseline surveys and reports in respect of planned terminal and accordingly give final recommendations/changes to be incorporated in surveys and reports during the preparation of detailed designs by the Contractor.
- (iii) Review the work done and prior to appointment of TSSC e.g. implementation and completion reports, if any, and document them on soft and hard media, for ready reckoning for future recourse.
- (iv) Set procedures, systems, standards, criteria and reporting systems for the Contractor.
- (v) Assist AIWTDS in monitoring site-readiness for the projects.
- (vi) Carry out / assist AIWTDS for other activities required for preparation of project.

7.2.1 **Task 1: Team Mobilization and Project Start-up**

The Team Leader of TSSC, along with its team members, will hold periodic meetings to discuss the following:

- (i) Rules and responsibilities of all parties and Stakeholders in the Project setup and lay out the rules and guidelines for implementation of the project.
- (ii) Status on award of contract(s)
- (iii) Reporting system and point of contact(s)
- (iv) Setting up of its project office
- (v) Issuing of Project Reports, Contract Documents and other background information related to the project.

7.2.2 **Task 2: Review of available Contract Documents**

- (i) Before the start of contract of the Contractor, TSSC will undertake study of Detailed Project Report, Environmental Impact Assessment (EIA) Report, Social Impact Assessment (SIA) Report, Cumulative Impact Assessment (CIA) Report and other available documents with particulars relevance to design, specifications and methodology for executing the work and project schedule.
- (ii) Study of contract agreement between Employer and the Contractor(s):
TSSC shall also review the contract agreements for understanding the responsibilities vested with the Contractor involved in the project. The understanding of the contract provisions is very important in the overall success of the project. It is very important to have clarity and through understanding of various provisions, in all aspects, and adequately robust to cope up with the requirements for the successful completion of project. The

provisions of the achievements of the milestones and the penalties, the procedure for dispute resolution, if arises are absolutely vital for the success of the project.

7.2.3 **Task 3: Design Review**

TSSC shall be responsible for the detailed engineering designs, drawings and other technical document submission made by the Contractor to ensure compliance with applicable guidelines, standards, local rules and regulations, WB guidelines and Employers rules and regulations, Bureau of Indian Standards, and as per publications as well as best global engineering practices and any other developed countries standards in the order of appearance here above.

- (i) Review of detailed engineering designs, drawings and other technical document submission made by the Contractor as per the scope of the Project to ensure that they cater to site requirements, construction amenability and least life cycle cost aspects.
- (ii) Review and recommend for the issuance for execution of Contractor's design and drawings with approval of the Employer for Contractor(s).
- (iii) Review the project documents including designs and drawings and give recommendations as required. The review shall identify any defects or omissions that compromise the completeness or consistency of the construction drawing in regard to its field level execution that may affect the viability, accuracy or implementation of the construction contract, and suggest modification to the implementation agency in consultation with the Employer
- (iv) Review Contractors' Environment and Social Management Plan (C-ESMP) with associated plans, such as Labour Management Plan, OHS plan, and contractor's code of conduct (CoC) with a grievance mechanism for contractor's personnel to confirm that it meets with the requirements, in light of the site conditions and finalized design.
- (v) Review the contracts to confirm that the contracts include relevant environmental and social (E&S) obligations and legal remedies- they should also ensure that relevant E&S obligations are included by contractors in their sub-contracts.
- (vi) Assist AIWTDS including other concerned stakeholders on actions required on review done / suggestions for design and construction aspects as and when required.
- (vii) Review and approve the "as built" drawings submitted by the Contractor.

7.3 **Project Monitoring and Control**

TSSC shall be responsible for monitoring entire project development and progress related to execution thereby assisting all Stakeholders in efficient project management and rendering advice in taking necessary actions for timely and quality completion of the project.

- (i) Review and comment on the project schedule prepared by the Contractor(s)/ executing agency and assist all stakeholders to provide necessary approvals.
- (ii) Monitor project development at project site against agreed scheduling and co-ordinate for finalizing the mitigation plan in case of delay. Monitor physical and financial progress for execution of works. Assist in forward physical and financial planning
- (iii) Monitor project development goals for site execution against stipulated goals in project indicator framework.
- (iv) Update / revise project scheduling, developmental goals, physical and financial achievements of Contractor in co- ordination with all stakeholders.
- (v) Report weekly, monthly and quarterly project status to all stakeholders.

7.3.1 Detailed Tasks

- (i) Review Contractor's detailed works program along with concerned stakeholders for procurement and installations and suggest modifications where deemed necessary.
- (ii) Review the suitability of Contractor's superintending and key personnel and suggest modifications where required. Also review if the plant & equipments have been mobilized as per contract requirement and performing satisfactorily to meet the target of completion. If not, the Contractor shall be instructed to replace such equipment(s)
- (iii) Ensure that all the works carried out under this program fully comply with engineering designs, technical specifications, drawings, established codes & sound engineering practices, environmental and social management plan requirements, indigenous people development plan, resettlement action plan and contract documents.
- (iv) Assist in interpretation of the drawings and technical specifications etc. as and when required
- (v) Review the construction methodology proposed by the Contractor for execution of works and suggest modifications as necessary, in order to ensure that the same is satisfactory in respect of technical requirements, project implementation schedule, environmental aspects and safety of the works, property, personnel & general public.
- (vi) The TSSC will assist concerned stakeholders to inspect the work on completion before taking over by the Employer and indicate any rectification required and outstanding work to be carried out by the Contractor prior to

issuance of certificate of completion by Employer, and will indicate any defects to be rectified during defect liability period.

- (vii) Recommendations regarding methods and procedures for the evaluation and the system for monitoring of works after completion.
- (viii) Ensure / review and support stakeholders to ensure that the Contractor(s) are adhering /following mandated environmental mitigation standards/ practices.

7.4 **Project Execution**

- (i) Assist in monitoring / execution of all works during contract period of the Project.
- (ii) Ensure adequacy, stability and safety of all personnel and construction works being executed by the Contractor during the construction, operation and maintenance up to the end of the defect liability period.
- (iii) Regular site reporting to monitor progress in implementation, including physical progress, environmental mitigation, Contractor performance, and adequacy of Contractor's supervision.
- (iv) Check measurement sheets / progress of works & milestones submitted in Contractor's bills submitted at intervals as per contract and certify payment due to the Contractor.

7.4.1 **Detailed Tasks:**

- (i) Assist in planning of all works
- (ii) Assist in monitoring and tracking statutory approvals and clearances.
- (iii) Assist concerned stakeholders to deal with performance deviation by Contractor.
- (iv) Advise and assist concerned stakeholders in defending Employer's stand
- (v) Advise and assist in minimizing disputes / claims.
- (vi) Advise and assist concerned stakeholders in coordination and external meetings.
- (vii) Assist and advise on encumbrance removal / utility shifting during construction period.
- (viii) Assist/ advice regarding timely handing over the site to the Contractor in stages and the advance actions required to be taken for the handing over of the site and to achieve the milestones for completion of the construction packages.
- (ix) Carry out proper monitoring of progress of the works through computer aided project management techniques;
- (x) Check Contractor's setting out of works prior to execution, for conformance with the good for construction drawings and file daily, weekly and monthly

reports with Verify lines and levels to ensure works are being executed as per the approved drawings/layouts, alignments and levels.

- (xi) Approve Contractor's proposed designs/drawings for temporary works;
- (xii) Inspect at regular intervals the Contractor's work sites, plant and facilities, including the workers' accommodation, to ensure conformity with the construction contract and all government/state regulations;
- (xiii) Inspect the Contractor's facilities and measures to confirm that the environmental management measures are being planned and implemented in line with the requirements of the Contract.
- (xiv) Inspect the Contractor's safety measures, including labour welfare, contractor's code of conduct (including measures for prevention of sexual harassment at workplace (SH), gender-based violence (GBV), sexual exploitation and abuse, discrimination, etc.as per relevant laws) and the code of contractor to include a grievance mechanism for contractor's personnel and immediately notify both the Employer and the Contractor of any infringement or violation;
- (xv) Maintain records, working/as-built drawings, and test data, details of variations, correspondence, and diaries in the formats approved/specified by the Employer;
- (xvi) Ensure that the quality of materials used, meet the specifications of contract agreement.
- (xvii) Maintain records of all plant, labour and materials used in the construction of the works;
- (xviii) Ensure that the quality of workmanship and the temporary arrangements/ structures made for carrying out the works meet the requirement of specifications and safety standards.
- (xix) Verify physically at least 10% the measurements taken by the Contractor for payment and maintain measurement records in standard format.
- (xx) Assist concerned stakeholders in scrutiny of invoices raised and settlement of all claims amicably.
- (xxi) Issue interim quantity certificates for processing Contractor's invoice. Certify completion of part or all of the works for payment;
- (xxii) Analyze claims submitted by the Contractor and prepare recommendations for the approval of "Engineer in charge" in terms of both technical and financial issues, for the claims for response to the Contractor.

7.5 Quality Assurance and Quality Control

- (i) TSSC shall be responsible for Quality Assurance & Technical Auditing (QA/TA) of the construction works. Develop forms and procedures in order to

ensure implementation of a proper Quality Assurance system on all activities and aspects of the project.

- (ii) Assist the concerned stakeholders on matters connected with quality assurance/control aspect of works in order to ensure the quality of work and its conformity with the standards & specifications prescribed in the contract.

7.5.1 Detailed Tasks:

- (i) To ensure high quality in construction works to be executed.
- (ii) Review and approve the quality assurance/ control system & procedures being followed by the Contractor.
- (iii) Check & approve sources of materials and ask the Contractor to submit materials ordering schedule;
- (iv) Review suitability of source and quality of construction materials on the basis of inspections, test results/ manufacturer's certificates etc.
- (v) To assist concerned stakeholders in verification of the field-testing laboratories set up by the Contractor in respect of its facilities, adequacy, arrangements, equipment and laboratory staff etc.
- (vi) Witness all the Quality Control tests being conducted by the staff of the Contractor in the Contractor's field-testing laboratory. The TSSC will also ensure the compliance and review the test results of the samples of Contractor's Material tested at intervals agreed in inspection and Test Plan at Govt. Engineering College laboratory or approved NABL accredited laboratory.
- (vii) Assist during inspection of the construction equipment and other related machinery in order to assess their suitability for the works. The TSSC shall ensure that all testing equipments in use in the laboratory have valid calibration certificate. During course of inspection if any item of the work is found substandard or unacceptable, the TSSC would inform the concerned stakeholders the rectification or replacement required in writing, giving full justification thereof with necessary supporting data.

7.5.1.1 Task 1: Preparation of Quality Assurance Plan

- (i) The TSSC in discussion with Employer shall prepare a Quality Assurance Plan (QAP), which will detail, TSSC 's Plan to conduct the various activities and measures/procedures to keep a check on the quality of the products.
- (ii) The quality Assurance Plan and Quality Control **procedures** will be continually checked by the TSSC 's supervisory staff to oversee that the work is completed according to specifications as laid out in Tender and applicable Relevant Indian Code of Practice including international and good practices.

- (iii) The main considerations that should weigh with preparation of an overall Quality Assurance Plan are:
 - a) Clearly defining the objectives,
 - b) Enumerating the activities involved
 - c) Incorporating the requirements of quality in each activity and providing for a fail-proof safeguard, if any.
 - d) Laying down the surveillance plan, checks for each apprehended lapse and omission,
 - e) Inspection and Test Plans including frequency of tests, at field lab or external approved lab, including requirement for witnessing.
 - f) The TSSC shall also develop forms and procedures for proper implementation of Quality Assurance Plan. They shall, inter alia, include the following:
 - g) Procedure for storing of materials to be used in permanent works. Organization of materials from stockyards during laying and finished works
 - h) Type, frequency and procedure of tests for different kinds of materials used for construction and permanent installations including mechanical, electrical and electronic equipment.
 - i) Inspection and test plans including requirement for witnessing
 - j) Requirements for record keeping
 - k) Norms and procedures for control of process related to laying of concrete structures and installation of other permanent works covering all disciplines involved in enabling Construction of Terminal.
 - l) Acceptability criteria for works and workmanship
 - m) Formats for recording and compilation of test data
 - n) Reporting system for test results and for actions to be taken in respect of quality

7.5.1.2 Task 2: Review of Field-Testing Laboratories

The laboratory and all facilities thereby will be supplied through the Construction Contracts by the Contractor. The list of equipment being provided will be made available to the Team Leader by the Employer. The Team Leader with the assistance of Sr. Quality Assurance Engineer will check the field laboratory set up of Contractor against this list and report any discrepancies or additional equipment necessary.

7.5.1.3 Task 3: Quality and Technical Audit

- (i) All Test and Controls before, during and after execution of the works will be preliminary defined beforehand and agreed leading to an organized systematic Quality Control.

- (ii) The TSSC will review the laboratory setup of the Contractor including the calibration of equipment. A comprehensive Testing Program and standardization of forms for testing purpose will be set up. Typical standard sheets will be produced for all the test required. They shall, inter alia, include the following:
 - a) The type of test to be performed,
 - b) Demands of specifications in relation to materials or final product,
 - c) The person responsible for testing,
 - d) The periodicity and frequency of the test (Volume of works, daily, weekly, before execution, etc.)
 - e) The standard and limits to be observed.
- (iii) The TSSC shall ensure that the Contractor maintain systematic documentation of all testing as per the forms that will be developed by the TSSC .
- (iv) The TSSC 's team will audit the quality reports maintained by the Contractor and will also witness the testing of material. Where necessary, testing in other laboratories will be arranged by the Contractor and monitored by the TSSC.
- (v) The source of materials will also be reviewed, and test reports of quarry material will be audited to assess their engineering properties. For all prefabricated and ready-mix items, certificated from manufacturers will be audited to verify that that the items meet the project requirement and specifications.
- (vi) The TSSC will develop procedures to audit various items of construction and ensure that all concerned persons understand and implement these procedures with special emphasis on proper testing before any element is covered up. If during inspections the Consultant finds improper materials have been used or if tests fail to meet the requirement of the specification, the consultant will notify the concerned stakeholders.
- (vii) The TSSC will regularly inspect all the work site to ensure, on the basis of first hand observation that works are being executed according to plans and specification and to provide on the job training to local supervision personnel. If any deficiencies in quality are observed during site visits, remedial measures will be initiated on the spot.
- (viii) Supervisory personnel will be educated in proper techniques to inspect/test for the particular problem and to prevent repetition.

7.6 Project Closure Stage

After completion of the construction, the TSSC will make an inspection of the entire Project or parts of the Project with representatives of concerned Stakeholders.

- (i) Ensure that the Contractors' demobilization is as per the agreed Demobilization Plan.
- (ii) Check and certify As-Built Drawings prepared by the Contractors before issuance of Taking-Over Certificates.
- (iii) Confirm the extent to which the environmental and social management plan requirements have been implemented and identify items that need to be included as part of (iv) below. This will cover project location, and all sites beyond the terminal which have been used for the project – plants, project staff accommodation, material storage and the like.
- (iv) All defects, imperfections, and faults will be notified to the AIWTDS. AIWTDS will instruct the Contractor for rectification of the defects. Upon completion of all rectification a Final Inspection will be performed with AIWTDS and the Contractor.
- (v) At the completion of the works, assist the Employer in preparing a consolidated Project Completion Report in the format as prescribed by Client.
- (vi) Following final inspection of the project and the correction of all identified deficiencies on the project, the TSSC shall recommend to AIWTDS to issue the Project Completion Certificate

7.7 Other activities related to the Project

- (i) Efficient Documentation both on paper media and soft media
- (ii) Assist in handling RTI applications and assessment of RTI compliance related to field works.
- (iii) Assist in handling audit observations including preparation of detailed of reply on Audit Para, factual note.
- (iv) Assist in important Correspondence with the World Bank and AIWTDS.
- (v) Presenting project status during WB missions and AIWTDS meetings as well as to prepare power point presentation on the same as per requirement.
- (vi) To assist in monitoring and evaluation including updating the indicators of result framework of the project.
- (vii) Assist in arranging and conducting monthly progress review / coordination meetings and to prepare its minutes of meetings.

7.8 Safeguard Management Under the Project

7.8.1 Environmental Safeguard

The TSSC to conduct external and independent monitoring of the EMP implementation. The main purpose of the external monitoring will be to ensure that all the key entities including Contractor are effectively and adequately fulfilling their designated role for EMP implementation and that all the EMP requirements are being implemented in a timely and

effective manner as per the EIA & CIA reports. This monitoring should be on-going throughout the project lifecycle and must be implemented to ensure that environmental impacts are within the predicted levels and that specified environmental performance targets are being achieved.

The objective of TSSC is to review and monitor the performance of the project through its entire lifecycle of implementation, on the basis of detailed on-site review, examination of appropriate documents, EIA document and discussions with the PIU, Beneficiary departments and other key stakeholders. The scope of the service expected from the TSSC is described below. The inputs from the TSSC shall enable to report on the performance of the Contractor / monitoring agency with respect to the project implementation.

7.8.2 Social Safeguard

The TSSC will make use of available documents, reports, and its interactions with AIWTDS officials and other implementing agencies and PAPs /PAFs during the monitoring process; check compliance w.r.t. the RAP-cum-IPDP& SMP documents; and flag any outstanding issues which may affect the quality or pace of the implementation process from social & / or regulatory requirements. One of the important tasks of the TSSC shall be to verify whether the pre-determined tasks are completed prior to the handing over of the encumbrance free site areas to the Contractor for initiating construction work. The TSSC shall provide options and advice in accordance to the policy provisions on any additional land acquisition or resettlement impacts encountered during the implementation. The TSSC will also make sure that stakeholders (including PAFs, PAPs and contractor's personnel) have access to grievance services.

7.8.3 Scope of Services under Safeguard Monitoring of TSSC

- i.** Review the EMP, CIA, SMP, RAP & IPDP and recommend the implementation plan for ensuring its implementation as per the provision.
- ii.** Supervise the proper implementation of Management Plan/ Additional Tasks&Environmental Monitoring Plan by the contractors as per the provision of EMP & CIA.
- iii.** Formulate necessary reporting formats for the Contractor to monitor the implementation of environmental & social management activities. This also includes the use of labour compliance software tool developed by the AIWTDS.
- iv.** Plan and impart regular orientation / training programs for the designated Assam IWT officials/ AIWTDS officials / Contractor staff on the effective implementation of Environmental & Social Management measures in the project

- v. Ascertain that borrow area management plan duly agreed by AIWTDS is in place and borrow areas are opened, operated and closed as per EMP and in consultation with concerned Engineer
- vi. Verify proper Occupation, Health & Safety measures are in place for labours, employees working at site
- vii. Review the labor management plan and the contractor's Code of Conduct to ensure it addresses the following issues: Compliance with applicable labour welfare laws, applicable health and safety requirements, use of illegal substances, non-discrimination, interactions with community members, sexual harassment, violence or exploitation of women and children, sanitation requirements, respecting reasonable work instructions, protection and proper use of property, duty to report violations of this Code, non-retaliation against workers who report violations of the Code, if that report is made in good faith. Ensure that all project workers (including contract workers) sign the Code of Conduct prior to commencement of work.
- viii. Check trees are removed (where necessary) from the project area (land side) prior to start of construction following all procedures and with clearance from Forest Dept. Verify compensation paid to the owners of trees which are felled to clear the project site as per the provisions and green belt development work is undertaken
- ix. Inspect implementation of Conservation Plan formulated for conservation of 'Gangetic Dolphin' in sensitive locations.
- x. Inspect Dredging for terminal sites and review Dredge Material Management
- xi. Review if Contractor(s) avoid soil pollution, remove topsoil & keep safely stacked for re-use after construction work is over
- xii. Monitor pollutants not making its way to water bodies and advise Contractor(s) accordingly, temporary drainage is provided at construction sites.
- xiii. Check construction work is not carried during the night and during rainy/flood season, without necessary safety and precautionary measures.
- xiv. Ensure that the Contractor carries out regular environmental monitoring as per the EMP & CIA and recommend necessary mitigation measures, where the parameters exceed the permissible standards
- xv. Verify adequate dust suppression measures are undertaken and these follow CPCB emission norms; periodical AAQ monitoring data to be checked w.r.t. standards
- xvi. Check construction equipment, vehicles & machineries have noise control measures, vehicles are fitted with exhaust silencer, vehicles' tyres are washed before it moved inside the river and outside construction sites
- xvii. Check workers/ labours working on machineries generating noise are provided with earmuff / plug

- xviii.** Check if construction is carried out close to any sensitive receptor without any, temporary noise barrier
- xix.** Monitor that the construction activities are carried without causing any unwanted land subsidence
- xx.** Check if silt fencing is provided by the Contractor to avoid run-off to river/ canal / water body
- xxi.** Check solid waste and other types of construction wastes including hazardous waste are managed as per EMP and regulatory provision
- xxii.** Verify whether permission from the authority is obtained for withdrawal of water from ground water & / or natural water body
- xxiii.** Verify whether NoC has been received to run machines such as DG Set, vehicles and other machineries from the State Pollution Control Board.
- xxiv.** Verify if forest clearance (if required) has been obtained for working on erstwhile forest land now taken over for AIWT project
- xxv.** Ensure all personnel working at sites are aware of statutory provisions related to Wildlife
- xxvi.** Participate in the meetings and consultations held by the implementing agencies/ Contractor(s),
- xxvii.** Report any lapse by Contractor(s) on environmental aspects to the Engineer with specific recommendations for remedial actions
- xxviii.** Preparation of monthly progress report on all environmental and social issues and submission to the AIWTDS.
- xxix.** Proper citizens charter to be displayed at the construction site.
- xxx.** Undertake inspections, and/or spot checks of work sites and of labour management records and reports compiled by the contractor. Contractors' labour management records and reports that will be reviewed would typically include the following:
 - a. Representative samples of employment contracts and signed code of conduct;
 - b. Grievances received from the community and workers and their resolution;
 - c. Reports incidents relating to fatalities and incidents and implementation of corrective actions;
 - d. Records relating to incidents of non-compliance with labour laws and regulations and the provisions of the LMP;
 - e. Notices displayed at the project sites as per the national labour laws, and
 - f. Records of training provided for all workers (direct and contract) to explain occupational health and safety risks, labour welfare measures including HIV/AIDS, SH and GBV prevention.

- xxxi. Address any adverse impacts of labour influx on the community as per the contractor's SMP (with associated plans, i.e. LaborInflux Risk Mitigation Plan, GBV action plan, labor management plan, contractor's code of conduct)
- xxxii. Ensure Internal Complaints Committee (ICC) and other requirements for prevention, protection and prohibition of sexual harassment are met as per the prevailing law.

7.8.4 Deliverables

The TSSC will undertake desk review of documents and make periodical site visits to each project as mentioned above. TSSC may be expected to conduct additional field inspection on the specific aspects as required. TSSC shall provide reasonable advance notice of planned visit to site, schedule of meetings for review, and documents required for review, etc. to AIWTDS. TSSC shall report to the Environmental Specialist & Social Development Specialist of AIWTDS. The observations of the TSSC team should be discussed with project management team of the AIWTDS before concluding the visit. The reporting would be as per the check lists, and format approved by AIWTDS and qualitative feedback should be captured in narrative in separate documents. Hard copies & soft copies of the reports should be submitted to the AIWTDS office. AIWTDS and supportive team may then record their responses to the reports filed by the TSSC to the Construction / implementation / monitoring agency. TSSC should provide clarifications / explanations to all the concerned agencies.

7.8.5 Support and Inputs for the Safeguard Management by TSSC

For evaluating the performance of the environmental management and monitoring plan, performance indicators are identified to for efficient and timely implementation of measures/actions proposed in EMP, SMP, RAP, IPDP& CIA. The indicators are defined both for implementation phase and for operation phase. TSSC will be responsible for compiling the information on these indicators and report to AIWTDS. To measure the overall environmental & social performance of the project, a tentative list of the performance indicators is given below. Consultant will submit a report on social and environmental safeguards on a monthly basis in a manner prescribed by the AIWTDS.

- Number of inspections carried out by TSSC per month.
- Number of non-compliances observed by TSSC.
- Availability of environmental specialists in Environmental & Social (E&S).
- Availability of environmental and social specialists in Construction Supervisor.
- Availability of environmental and social specialists with Contractor.
- Timely reporting of documents (as defined in EMP, SMP, IPDP, CIA, RAP and monitoring plan)

- Number of trainings imparted to stakeholders/other capacity building initiatives
- Number of grievances received.
- Number of grievances resolved.
- Number of constructions related accidents and fatalities including corrective actions taken.

Number of incidents of non-compliances of labour laws observed by TSSC.

Performance specifications (e.g. criteria or targets) must be provided for each management action or monitoring activity, in order to assess whether the actions have been effective. Performance specifications could be based on the level at which an environmental or social condition must remain (e.g. habitat in a part of the site that must not be disturbed), or the level to which the environmental or social condition must be restored (e.g. habitat rehabilitation), or legislated or agreed limits (e.g. air quality standards), or the level of socio-economic benefits to be realized through the project (e.g. use of local labour and enterprises). Where possible, these performance specifications should be quantitative. These specifications might be revised during the implementation of the EMP, SMP, RAP & CIA, in the spirit of promoting continuous improvement.

PHASE – 3

7.9 Defects Liability Period

During this period the TSSC will make at least one visit per month of each work to verify the behavior of the structure and note defects.

- (i) If necessary, the TSSC will notify AIWTDS in assessing any possible defect that may appear, care will be taken to differentiate between a “construction defect”, which is the Contractor’s responsibility to correct and “normal wear and tear”, which is a maintenance item.
- (ii) Following each inspection, a report detailing the observed defects will be prepared and discussed with the AIWTDS and the Contractor involved. A solution to the issues will be determined in consultation with AIWTDS and the Contractor.
- (iii) At the end of the Defects Liability Period the TSSC will make a final inspection with AIWTDS and the representative of the Contractor and certify to AIWTDS that all is in order and that the Contractor may be released from further obligation as per provision for contract.

8. REPORTING REQUIREMENTS AND THEIR TIMELINES

The TSS will prepare and submit the following reports in hard and soft copy to AIWTDS in the format prepared by the TSSC and as approved by AIWTDS:

S.No	Particulars of the Report	No. of Copies	Content of the Report	Time of submission
1)	Inception Report	3	TSSC will submit an Inception Report at the end of first month containing a description on approach and methodology along with detailed work plan and resource deployment plan. Inception Report must include Safeguard Management's aspects as well.	Within 30 days from commencement of services.
2)	Quality Assurance Plan	3	TSSC shall prepare a quality assurance plan for achieving quality in construction based on national / international standards and best practices being followed.	Within 30 days from commencement of services.
3)	Bid Process Management	3	Detailed description as mentioned above in Phase- 1	Upon submission of Bid for Works at Aphalamukh
4)	Monthly Progress Reports	3	Detailed description as mentioned	For every month by 7 th date in following month
5)	Quarterly Progress Reports	3	Detailed description as mentioned below	For every Quarter by 7 th date in following Quarter
6)	Environmental & Social Safeguard Management Report	3	Detailed presenting the details of review and recommendations for the addressing various issues identified The TSSC is also expected to conduct training and orientation workshops, at least one in six months with an objective to guide AIWTDS,IWT, Contractor and other agencies on the implementation of RPF /	For every month by 7 th date in following month

			RAP/EMP/ EMF and its compliance and training on social inclusion and gender, GBV, GRM, labor management issue.	
7)	River Safety Compliance Report	3	The TSSC shall prepare and submit compliance report on implementation of river safety management plan on quarterly basis. The report shall include outcome of river safety audit conducted by the Safety Expert and also incorporate recommendations for improving during operation of vessels safety.	For every Quarter by 7 th date in following Quarter
8)	Standard operating procedure for evaluation	3	Recommendations regarding methods and procedures for evaluation and the system for monitoring the condition of works after completion	Within one month after completion of consultancy assignment.
9)	Quality Certificate	3	Certificate regarding Quality of work executed for each activity of work and covering all types of works.	Within one month after completion of work.
10)	Defect Liability Report	3	Detailed description as mentioned above in Phase- 3	For every Quarter by 7 th date in following Quarter during the Defect Liability Period.
11)	Final Completion Report with CD	3	The TSSC will prepare a comprehensive final completion report including As Built drawing, approved design, Equipments installed, Utilities and Services (Electrical, Mechanical, and Electronics) or before the end of Consultancy	Within 90 days after issuance of Completion Certificate of the Civil Works Contract

			Services.	
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The TSSC shall also prepare and submit the following reports (hard & soft copy) within 30 days from commencement of Service.

S. No.	Description	Number	Copies	Content of the Report
1	Construction monitoring Manual	1	3	Construction Monitoring Manual shall include detailed project procedures for efficient and time-bound implementation of the project and for progress monitoring and quality control. This Manual shall be submitted within three months of the commencement of the consultancy services.
2	Engineering Reports	As required	3	Engineering Report shall include the progress on design and highlight any issues which may lead to design changes and needs prior client approval
3	Maintenance Manual	1	3	Maintenance Manual shall be submitted two months prior to the completion of construction prepared in line with Civil Works Contract.
4	Environmental Safeguard Monitoring Manual	1	3 hard copies and 1 soft copy (CD)	This manual shall include detail procedure and timeline for efficient implementation of Environmental Management Plan & Environmental Monitoring Plan as per the EIA & CIA reports. The manual shall be submitted within one month of the commencement of the consultancy services.
5	Social Safeguard Monitoring Manual	1	3 hard copies and 1 soft copy (CD)	The manual shall include detail procedure and timeline for efficient implementation of Social Management Plan, Resettlement Action Plan, Indigenous People Development Plan, Labour Influx and Labour Management Plan, GBV Action Plan, Citizen Charter, Grievance Redressal, etc. as per the SIA Report. The manual shall be submitted within one month of the commencement of the consultancy services.

Monthly Progress Reports

The TSSC shall prepare & submit a brief progress report summarizing the work accomplished by the supervision team for the preceding month. The report shall outline any problems encountered (administrative, technical or financial) and give details/ recommendations on how these problems have been/ may be overcome. Brief work progress summaries will be included for ongoing jetty and other major works, outlining problems encountered and solution/ recommended solutions. The report shall also record the status of payment of Contractor, monthly certificates of all claims for cost or time extensions, and of action required from government and other agencies to permit unconstrained works implementation.

The Social & Environmental Safeguard Team of TSSC Consultant shall be in regular contact with the Environmental Expert & Social Development Expert of AIWTDS. Environmental & Social Safeguard reports shall be shared with the respective expert of AIWTDS.

Quarterly Progress Reports during the tenure of the Contract

The TSSC shall prepare a comprehensive report summarizing all activities under the supervision contract at the end of each quarter, and also at other times when considered warranted by either the TSSC or the Concerned Stakeholders because of delay of the construction works or because of the occurrence of technical or contractual difficulties. Such reports shall include but not be limited to, (i) Details of major milestones achieved (ii) the progress of the Contract (iii) all contract variations and change orders (iv) the status of Contractor's claims, if any; etc. and will include brief descriptions of the technical and contractual problems being encountered, physical and financial progress in approved formats, financial status of the contract as a whole consisting of the cost incurred, cost forecast, as well as financial plan (by World Bank and the Government) and other relevant information on the ongoing contract.

Final Completion Reports

The TSSC shall prepare a comprehensive final Completion Report of the contract, after entire work reaches a stage of substantial completion during the period of the consultancy services. These reports must be submitted within one month after the completion of the work by the Contractor and before taking over of all the works by the AIWTDS. The report shall incorporate summary of the method of construction, the construction supervision performed, as built construction drawings, problems

encountered & solutions undertaken thereon and recommendations for future projects of similar nature to be undertaken by AIWTDS. The Authority's Engineer will summarize and consolidate in a single report the key information to prepare the Final Completion Report on completion of the Civil Works contract including Services.

All the above mentioned reports, manual, certificates mentioned in Section-8 must be submitted to :

*Deputy State Project Director,
Assam Inland Water Transport Development Society,
3rd Floor, Office of Directorate of Inland Water Transport,
Ulubari, Guwahati, Assam.*

9. DATA, SERVICES, AND FACILITIES TO BE PROVIDED BY THE EMPLOYER

The following and any other such data, available with the AIWTDS shall be provided to the TSSC: models of past RFQ, RFP, project details, specifications, designs (as and when required) and Schedules or any other relevant document supportive to project development prepared by AIWTDS.

In addition to above, all the relevant documents from safeguard perspectives such as- EMF, SMF, EIA, SIA, EMP, SMP, CIA shall be share with the TSSC Consultant.

Professional and support counterpart personnel to be assigned by the Client to the Consultant's team : Project Manager (Technical), Assam Inland Water Transport Development Society,

10. STAFFING

The TSSC professionals must have relevant experience complying to the requirement of TOR, familiarity with the local conditions and prevalent local laws and must exhibit expertise of International standards in supervision of large infrastructure projects. Staff nominated by the selected TSSC must be confirmed as available for the project to do the scheduled work. At the time of RFP, the CVs of the proposed professionals must be submitted along with signed declaration by the proposed professionals confirming their availability for the project. CVs submitted without such declaration shall not be considered for evaluation.

The TSSC team must comprise of highly qualified and experienced Key and Non-Key Experts, best suited for the assignment. TSSC must provide CVs of both Key Experts and Non-Key Experts in their Technical Proposal. Some key experts shall be

employed intermittently, at intervals which would be proposed by AIWTDS. The period of employment of key experts and non- key experts are indicated below:

S.No.	Resource	Deployment	
		No.	Man-months
1.00	Key Resources		
1.01	Team Leader cum Project Management Expert	1	18
1.02	Resident Engineer cum Construction Expert to be based at Site Full time	1	30
1.03	Sr. Quality Assurance cum Material Engineer	1	12
1.04	Sr. Electrical Engineer	1	6
1.05	Sr. Structural Engineer	1	5
1.06	Sr. Mechanical Engineer (Including Defect Liability Period of 1.5 MM (Phase -3))	1	12
1.07	Contract Specialist & Commercial manager	1	15
1.08	Safety Expert	1	10
1.09	Environmental Expert	1	12
1.10	Social Development Expert	1	12
2.00	Non - Key Resource to be based at Site continuously		
2.01	Civil Engineer (Including Defect Liability Period of 1.5 MM (Phase 3))	1	36
2.02	Quality Control Engineer	1	30
2.03	Safety Officer	1	30
2.03a	Environmental Officer/Supervisor	1	30
2.03b	Social Development Officer/ Supervisor	1	30
2.04	Quantity Surveyor and Billing Engineer	1	30
2.05	MIS Expert	1	18
2.06	Project Planning & Scheduling Expert	1	18
3.00	Support Staff to be based at Site Full time		
3.01	Office Administrator & Document Controller	1	36
3.02	Office Support Staff	1	36

11. QUALIFICATION & EXPERIENCE OF KEY PERSONNEL

S. No.	Position	Educational Qualification	Experience, Roles & Responsibility
A. Key Experts			
1	Team Leader	Should be a Graduate in Civil	1. Experience in managing

S. No.	Position	Educational Qualification	Experience, Roles & Responsibility
		<p>Engineering. Post-Graduation in Project Management / Port /Marine Engineering will be preferred.</p> <p>Minimum 20 years of overall experience, including 5 years of experience as Team Leader in Port/IWT related construction supervision and Project management.</p>	<p>similar large infrastructure project with various financing and procurement arrangements, supervision of field engineers.</p> <ol style="list-style-type: none"> 2. Ability to handle multiple projects simultaneously, should have handled as Resident Engineer or in a similar capacity at least three projects of similar works/magnitude. 3. Alternatively, should have the experience as Team Leader with 8 years' experience of Project monitoring and supervision of at least two infrastructure projects preferably in Port sector of which one project should be of similar works/magnitude.
2	Resident Engineer cum Construction Expert	<p>Should be a Graduate in Civil Engineering. Post-Graduation in Project Management/ Port /Marine Engineering will be preferred.</p> <p>Minimum 20 years of overall experience including 5 years of experience in Port/IWT related constructions works / project management installation of large diameter driven and/or bored RCC piles or steel tubular piles or precast concrete piles of large</p>	<ol style="list-style-type: none"> 1. Responsible for the project implementation activities of the respective Contractors. 2. Shall ensure execution of works on site as per specifications / standards and interact with the AIWTDS and the respective Contractor. 3. Shall guide, supervise, coordinate and monitor the work of other experts in his team as well as those of the respective Contractor.

S. No.	Position	Educational Qualification	Experience, Roles & Responsibility
		lengths in marine/riverine conditions.	<p>4. Assist team leader in efficient functioning of TSSC office.</p> <p>5. Should have a proven record of supervision / project management in projects of similar nature and magnitude.</p>
3	Sr. Quality Control cum Material Engineer	<p>Should be a Graduate in Civil Engineering. Post-Graduation in Soil & Foundation Engineering / Geo-Technical Engineering will be preferred.</p> <p>Minimum 15 years of experience in works related to Port/Harbor /IWT structures, including at least 5 years of experience in formulation and implementation of Quality Assurance plan for civil works in Harbor/Port/Marine foundations/major infrastructure works and experience in Mobilization, installation and calibration of Lab equipment is essential.</p> <p>Should be conversant with internationally acceptable modern standards for Quality Assurance in Harbor/Marine/Port projects/major infrastructure works</p>	Responsible for supervising all the tests to be done in different stages of construction.
4	Sr. Electrical Engineer	Should be a Graduate in Electrical Engineering. Post-Graduation in relevant field will be preferred.	1. Should have handled as Site Engineer or in a similar capacity at least three projects of similar

S. No.	Position	Educational Qualification	Experience, Roles & Responsibility
		<p>He should have minimum 10years of experience in the relevant field.</p>	<p>works/magnitude.</p> <ol style="list-style-type: none"> 2. Alternatively, should have the experience as Site Engineer with 8 years' experience of Project monitoring and supervision of at least three infrastructure projects preferably in Port sector of which one project should be of similar works/magnitude. 3. Responsible for the entire project implementation activities of the respective Contractors. 4. Ensure execution of electrical works on site as per specifications / standards, and continuously interact through Team Leader with the AIWTDS and the respective Contractor
5	Sr. Structural Engineer	<p>Should be a Graduate in Civil Engineering. Higher qualifications and specialization in port related civil designs will be preferred.</p> <p>Should have minimum 15 years of design experience including 5 years of experience in Port/IWT related designs.</p>	<ol style="list-style-type: none"> 1. Should have handled similar assignment as Design Engineer manager or in a similar capacity for at least three projects of similar works/magnitude. 2. Alternatively, he should have 8 years' experience of design in at least three infrastructure projects preferably in Port sector of which one project should be of similar works/magnitude.

S. No.	Position	Educational Qualification	Experience, Roles & Responsibility
			3. Responsible for the review of design. He shall undertake project site visits as and when required.
6	Sr. Mechanical Engineer	Should be a Graduate in Mechanical / Marine Engineering with experience in construction Minimum 10 years of experience in the relevant field.	1. Responsible for all Mechanical works. 2. Advice client on policy / guidelines of Central / State Govt. Related to IWT matter. 3. Technical and contractual aspects of the projects. 4. Supervise project clearances for the project.
7	Contract Specialist and Commercial Manager	Should be a graduate in Civil Engineering from a reputed University or institution. Minimum 15 years of experience in managing procurement of various consultancy / works contracts under different modes of funding including the multilateral / bi-lateral funded large public sector programs and procurement of Contracts as per the procurement guidelines of Govt. of India and multilateral / bi-lateral funded projects	1. Experience in Preparation and maintenance of procurement plans bid process management, documentations, audit / review of procurement records, handling procurement related queries/complaints and any other requirement. 2. Develop procurement and contracting strategy and plan, strategic sourcing solutions and value buying to increase procurement synergies between the different projects on the corridor. 3. Responsible for bid process management and selection of consultant for project development

S. No.	Position	Educational Qualification	Experience, Roles & Responsibility
			<ol style="list-style-type: none"> 4. Drive conceptualization of project contracts 5. Prepare RFP, PQ documents for invitation to bid for projects 6. Issue of NITs and Evaluation of proposals and recommendations to the AIWTDS. Final negotiation support and contracting with finalized parties to be awarded projects 7. Manage contract, including review of invoices from consultant, EPCMs and PMCs engaged by AIWTDS and match against relevant ToR / Contracts 8. Review compliance and adherence to project agreements, contractual clauses.
8	Safety Expert	<p>Should be a Graduate in Engineering with additional specialist training and qualifications directly relevant to safety in waterways/large Infrastructure construction management.</p> <p>Minimum 15 years of relevant professional experience, including at least 5 years directly in the</p>	<ol style="list-style-type: none"> 1. Exposure to international-safety standards and relevant experience and skills in safety concerns in Port /IWT infrastructure projects with current specialization in all the engineering and traffic safety aspects of works project planning / design / implementation. 2. Significant experience in reviewing the safety

S. No.	Position	Educational Qualification	Experience, Roles & Responsibility
		waterways/relevant Safety field.	<p>parameters in project design of large Infrastructure works.</p> <p>3. Should have carried Safety audit in preparing Large Infrastructure Safety Audit -based engineering mitigation measures.</p> <p>4. Should have sound knowledge of contemporary waterways/large infrastructure safety engineering 'best practice' and be soundly familiar with (i) current policies, standards and/or guidelines relating to waterways/large infrastructure design and construction in India and (ii) current 'safe traffic engineering' concepts and approaches demonstrated elsewhere that may be brought into application in IWT.</p> <p>5. Must have proven skills at staff capacity building and training in this field; and should have completed at least one major similar assignment in a comparable 'developing country' context.</p>

S. No.	Position	Educational Qualification	Experience, Roles & Responsibility
9	Environmental Expert ¹	<p>Should be a Postgraduate in Environmental Planning / Engineering / Environmental Sciences or relevant disciplines.</p> <p>Minimum 10 years of experience in the relevant field.</p>	<ol style="list-style-type: none"> 1. Experience in conducting EIA, environment modeling & preparing and implementing Environmental Management plans, as well as review of existing plans and their modification. Facilitation in understanding Environment protection aspect of project under PPP 2. Experience to prepare ToR for environment studies for projects in IWT sector. 3. Experience in obtaining project clearances including EIA Clearance from MoEFCC. 4. Experience of working in externally aided project such as project funded by World Bank, ADB, JICA projects.
10	Social Development Expert	<p>Should be a Postgraduate in Sociology / Social Work or relevant disciplines.</p> <p>Minimum 10 years of experience in the relevant field.</p>	<ol style="list-style-type: none"> 1. Experience in conducting SIA, RAP, Social Management Plan and well understanding of Social Safeguard aspects, such as GBV risk management, grievance redressal, labor management issues. . 2. Experience to prepare ToR

¹Detail Roles & Responsibility of Environmental Expert & Social Development Expert may be referred in 7.8.3 Scope of Services under Safeguard Monitoring of TSSC

S. No.	Position	Educational Qualification	Experience, Roles & Responsibility
			<p>for social development studies for projects in IWT sector.</p> <p>3.Experience in obtaining project clearance from relevant authority.</p> <p>4.Experience of working in Externally Aided Project such as projects funded by World Bank, ADB, JICA etc.</p>
B. Non-Key Expert			
1	Civil Engineer	<p>Should be a Graduate in Civil Engineering.</p> <p>Minimum 7 years in project management and construction supervision of civil Projects. Preference shall be given to executed port/IWT works /projects</p>	<ol style="list-style-type: none"> 1. Responsible for the project implementation activities of the respective Contractors. 2. Ensure execution of works on site as per specifications and standards, and continuously interact with the AIWTDS and the respective Contractor. 3. Assist Resident Engineer cum Construction Expert in supervision, coordination and monitoring the work of the respective Contractor.
2	Quality Control Engineer	<p>Should be a Graduate in Civil Engineering. Post-Graduation in Soil & Foundation Engineering / Geo-Technical Engineering or material management with specialization in Port/Harbor/IWT structures will be preferred.</p>	<ol style="list-style-type: none"> 1. Should be conversant with internationally acceptable modern standards for Quality Assurance in Harbor/ Marine/Port projects/major infrastructure works. 2. Assist Sr. Quality Assurance cum Material Engineer and shall be

S. No.	Position	Educational Qualification	Experience, Roles & Responsibility
		<p>Minimum 7 years' experience including 2 years' experience in formulation and implementation of Quality Assurance plan for civil works in Harbor/Port/Marine /major infrastructure works and experience in mobilization, installation and calibration of Lab equipment.</p>	<p>responsible for supervising all the tests to be done in different stages of construction, besides ensuring that specified tests are done as per code / specifications laid down in the contract for all the different stages of construction.</p>
3	Safety Officer	<p>Diploma in civil engineering additional specialist training and qualifications directly relevant to engineering, traffic and transport safety in waterways/Infrastructure works.</p> <p>Minimum 7 years of relevant professional experience, in the waterways/infrastructure Safety field.</p>	<ol style="list-style-type: none"> 1. Should have extensive International-standard experience and skills in waterways/large infrastructure design, construction with specialization in traffic safety /port/IWT construction engineering aspects of works. 2. Should have sound knowledge of contemporary waterways/large infrastructure safety engineering 'best practice' and be soundly familiar with (i) Current policies, standards and/or guidelines relating to waterways/large infrastructure design and construction in India and (ii) Current safe traffic engineering' concepts and approaches demonstrated elsewhere that may be

S. No.	Position	Educational Qualification	Experience, Roles & Responsibility
			brought into application in IWT.
	Environmental Officer/Supervisor	Should be a graduate in Civil or Environmental Engineering/Post graduate in Environmental science	<ol style="list-style-type: none"> Supervising implementation of ESMP in transport sector, preferably water transport, of at least 5 years. Interacting with authorities, and contractors as well as their gangs and 3rd party monitoring consultant teams
	Social Development Officer/Supervisor	Should be a post graduate in Sociology/ Social Works/ Economics or relevant fields	<ol style="list-style-type: none"> Supervising implementation of ESMP in transport sector, preferably water transport, of at least 5 years. Interacting with authorities, and contractors as well as their gangs and 3rd party monitoring consultant teams
4	MIS Expert	<p>Should be a Graduate in computer Science. Master's degree in Construction Management from a reputed and recognized university or institution shall be preferred</p> <p>Minimum 7 years of experience of working with Management Information System for Private / Public</p>	<ol style="list-style-type: none"> Design and maintain a database and regular process schedule for all the works undertaken by the Employer in the head office and/or by PIU formed by the Client. Update the database for status of progress of ongoing and completed works and assist AIWTDS in ensuring that projects are

S. No.	Position	Educational Qualification	Experience, Roles & Responsibility
		<p>sector / Government organizations and specifically more than 5 years of experience in MIS implementation and Project management for large Infrastructure programs.</p>	<p>developed in accordance with the agreements between AIWTDS, World Bank and the State Governments / other relevant implementation agencies.</p> <ol style="list-style-type: none"> 5. Deploy pre-defined tracking processes, tools and dashboards and integration of tracking and follow up 6. Periodically track and report progress of Coordinating between work streams and resolving issues 7. Monitor projects at project level, provide feedback and intervene to course correct on issues that impact project value and timelines 8. Supervise and coordinate with AIWTDS' employees, program managers, Contractors and with other Government departments as directed by AIWTDS including coordinating with the consultants directly engaged by AIWTDS. 9. Prepare the guidelines / manuals / SOP for robust MIS system formed by the Employer for different Projects with a viewpoint to integrate with head office MIS System.

S. No.	Position	Educational Qualification	Experience, Roles & Responsibility
			10. Coordinate with ERP consultants and implementing agency for its successful implementation.
5	Quantity Surveyor and Billing	Should be a Graduate in Engineering. Minimum 7 years in project management and construction supervision of civil Projects. Preference shall be given to executed port/IWT works /projects	1. Responsible for the carrying out and verification of quantity estimations for the projects. 2. Verify invoices raised by the contractor and coordinate with stakeholders to authorize the payments.
6	Planning and Scheduling Expert	Should be a Graduate in Engineering. Minimum 7 years in project management and construction supervision of civil Projects. Preference shall be given to executed port/IWT works /projects	1. Track the project progress in project scheduling softwares. 2. Provide inputs to the stakeholders and TSSC team on the Physical/Financial progress. 3. Carry out delay analysis and Generate catch-up plan, prepare updated schedules.