

ARIAS SOCIETY

Assam Rural Infrastructure and Agricultural Services Society (An Autonomous Body of the Govt. of Assam) Project Coordination Unit (PCU) of the World Bank financed Assam Agribusiness and Rural Transformation Project (APART) Agriculture complex, Khanapara, G.S. Road, Guwahati-781022 (Assam, India) Tel: +91 361-2332004; email: spd@arias.in; website: www.arias.in

Project: Assam Agribusiness and Rural Transformation Project (APART)

SELECTION OF CONSULTANTS

[Through Quality and Cost Based Selection "QCBS" method]

REQUEST FOR PROPOSALS (RFP)

RFP No. : ARIAS-13012/7/2022-APART-ARIAS/I/53345/2022

[Procurement Plan Reference: IN-ARIAS-294797-CS-QCBS]

Hiring of Consulting Services for:

"Technology based yield estimation at village level in 12 districts of 6 Agro climatic zones of Assam for Paddy crop under APART"

Client: ARIAS Society, Project Coordination Unit, Agriculture Complex, Khanapara, G.S. Road, Guwahati-781022; (Assam, India); Tel: 0361-2332004; email: <u>spd@arias.in</u>

Country: India Issued on: 6th October, 2022

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PART I

Section 1. Letter of Invitation

Section 1. Letter of Invitation

Name of Assignment: Hiring of Consulting Services for: "Technology based yield estimation at village level in 12 districts of 6 Agro climatic zones of Assam for Paddy crop under APART" RFP Reference No.:_ARIAS-13012/7/2022-APART-ARIAS Dated Guwahati the 6th October, 2022 Issue No: 1/53345/2022

Loan No. IBRD loan No. 8780-IN, Project ID.: P155617;

Country: India

- 1. The Government of Assam through the Government of India (hereinafter called "Borrower") has received financing from the International Bank for Reconstruction and Development (IBRD) in the form of a "loan" (hereinafter called "loan") towards the cost of **APART. The ARIAS Society**, an implementing agency of the Client intends to apply a portion of the proceeds of this loan to eligible payments under the contract for which this Request for Proposals (RFP) is issued. Payments by the Bank will be made only at the request of the ARIAS Society and upon approval by the Bank, and will be subject, in all respects, to the terms and conditions of the financing agreement. The financing agreement prohibits a withdrawal from the loan account for the purpose of any payment to persons or entities, or for any import of goods, if such payment or import, to the knowledge of the Bank, is prohibited by a decision of the United Nations Security council taken under Chapter VII of the Charter of the United Nations. No party other than the Client shall derive any rights from the financing agreement or have any claims to the proceeds of the loan.
- 2. The Client now invites proposals to provide the following consulting services (hereinafter called "Services"): Hiring of consulting services for "Technology based yield estimation at village level in 12 districts of 6 Agro climatic zones of Assam for Paddy crop under APART". More details on the Services are provided in the Terms of Reference (Section 7).
- 3. A firm will be selected under **Quality and Cost Based Selection (QCBS)** procedures and in a **Full Technical Proposal (FTP)** format as described in this RFP, in accordance with the policies of the Bank detailed in the Bank's "Regulations for IPF Borrowers" July 2016 (" Procurement Regulations") which can be found at the following website: <u>www.worldbank.org/procure</u>.

Section 1 - Letter of Invitation	Section 2 - Instructions to Consultants and Data Sheet
Section 3 - Technical Proposal (FTP)- Standard Forms	Section 4 - Financial Proposal - Standard Forms
Section 5 –Eligible Countries	Section 6 – Bank's Policy – Corrupt and Fraudulent Practices
Section 7 - Terms of Reference	Section 8 - Forms of Contract (Lump-Sum)

4. The RFP includes the following documents:

5. Details on the proposal's submission date, time and address are provided in ITC 17.7 and ITC 17.9.

Yours sincerely,

Sd/-(Roshni Aparanji Korati, IAS) State Project Director, ARIAS Society,

Section 2. Instructions to Consultants and Data Sheet

Instructions to Consultants

A. General Provisions

- **1. Definitions** (a) "Affiliate(s)" means an individual or an entity that directly or indirectly controls, is controlled by, or is under common control with the Consultant.
 - (b) "Applicable Law" means the laws and any other instruments having the force of law in the Client's country, or in such other country as may be specified in the **Data Sheet**, as they may be issued and in force from time to time.
 - (c) "Bank" means the International Bank for Reconstruction and Development (IBRD) or the International Development Association (IDA).
 - (d) "Borrower" means the Government, Government agency or other entity that signs the *[loan/financing/grant*¹] agreement with the Bank.
 - (e) "Client" means the implementing agency that signs the Contract for the Services with the selected Consultant.
 - (f) "Consultant" means a legally-established professional consulting firm or an entity that may provide or provides the Services to the Client under the Contract.
 - (g) "Contract" means a legally binding written agreement signed between the Client and the Consultant and includes all the attached documents listed in its Clause 1 (the General Conditions of Contract (GCC), the Special Conditions of Contract (SCC), and the Appendices).
 - (h) "Data Sheet" means an integral part of the Instructions to Consultants (ITC) Section 2 that is used to reflect specific country and assignment conditions to supplement, but not to over-write, the provisions of the ITC.
 - (i) "Day" means a calendar day, unless otherwise specified as "Business Day". A Business Day is any day that is an official working day of the Borrower. It excludes the Borrower's official public holidays.
 - (j) "Experts" means, collectively, Key Experts, Non-Key Experts, or any other personnel of the Consultant, Sub-consultant or Joint Venture member(s).
 - (k) "Government" means the government of the Client's country.
 - "in writing" means communicated in written form (e.g. by mail, e-mail, fax, including, if specified in the Data Sheet, distributed or received through the electronic-procurement system used by the Client) with proof of receipt;
 - (m) "Joint Venture (JV)" means an association with or without a legal personality distinct from that of its members, of more than one Consultant where one member has the authority to conduct all business for and on behalf of any and all the members of the JV, and where the members of the JV are jointly and severally liable to the Client for the performance of the Contract.
 - (n) "Key Expert(s)" means an individual professional whose skills, qualifications, knowledge and experience are critical to the performance of the Services under the Contract and whose CV is taken into account in the technical evaluation of the Consultant's proposal.
 - (o) "ITC" (this Section 2 of the RFP) means the Instructions to Consultants that provides-the Consultants with all information needed to prepare their Proposals.
 - (p) "Non-Key Expert(s)" means an individual professional provided by the Consultant or its Sub-consultant and who is assigned to perform the Services or any part thereof under the Contract and whose CVs are not evaluated individually.
 - (q) "Proposal" means the Technical Proposal and the Financial Proposal of the Consultant.
 - (r) "RFP" means the Request for Proposals to be prepared by the Client for the selection of

¹["loan agreement" term is used for IBRD loans; "financing agreement" is used for IDA credits; and "grant agreement" is used for Recipient-Executed Trust Funds administered by IBRD or IDA]

Consultants, based on the SPD - RFP.

- (s) "SPD RFP" means the Standard Procurement Document -Request for Proposals, which must be used by the Client as the basis for the preparation of the RFP.
- (t) "Services" means the work to be performed by the Consultant pursuant to the Contract.
- (u) "Sub-consultant" means an entity to whom the Consultant intends to subcontract any part of the Services while the Consultant remains responsible to the Client during the whole performance of the Contract.
- (v) "Terms of Reference (TORs)" (this Section 7 of the RFP) means the Terms of Reference that explains the objectives, scope of work, activities, and tasks to be performed, respective responsibilities of the Client and the Consultant, and expected results and deliverables of the assignment.
- 2. Introduction 2.1 The Client named in the **Data Sheet** intends to select a Consultant from those listed in the Request for Proposals (RFP), in accordance with the method of selection specified in the **Data Sheet**.

2.2 The Consultants are invited to submit a Technical Proposal and a Financial Proposal, or a Technical Proposal only, as specified in the **Data Sheet**, for consulting services required for the assignment named in the **Data Sheet**. The Proposal will be the basis for negotiating and ultimately signing the Contract with the selected Consultant.

2.3 The Consultants should familiarize themselves with the local conditions and take them into account in preparing their Proposals, including attending a pre-proposal conference if one is specified in the **Data Sheet**. Attending any such pre-proposal conference is optional and is at the Consultants' expense.

2.4 The Client will timely provide, at no cost to the Consultants, the inputs, relevant project data, and reports required for the preparation of the Consultant's Proposal as specified in the **Data Sheet**.

3. Conflict of Interest 3.1 The Consultant is required to provide professional, objective, and impartial advice, at all times holding the Client's interests paramount, strictly avoiding conflicts with other assignments or its own corporate interests, and acting without any consideration for future work.

3.2 The Consultant has an obligation to disclose to the Client any situation of actual or potential conflict that impact sits capacity to serve the best interest of its Client. Failure to disclose such situations may lead to the disqualification of the Consultant or the termination of its Contract and/or sanctions by the Bank.

- 3.2.1 Without limitation on the generality of the foregoing, and unless stated otherwise in the **Data Sheet** the Consultant shall not be hired under the circumstances set forth below:
- a. Conflicting (i) Conflict between consulting activities and procurement of goods, works or non-consulting services: a firm that has been engaged by the Client to provide goods, works, or non-consulting services for a project, or any of its Affiliates, shall be disqualified from providing consulting services resulting from or directly related to those goods, works, or non-consulting services for the preparation or implementation of a project, or any of its Affiliates, shall be disqualified from subsequently providing goods or works or non-consulting services resulting from or directly related to the consulting services for such preparation or implementation.
- b. Conflicting(ii)Conflict among consulting assignments: a Consultant (including its Experts
and Sub-consultants) or any of its Affiliates shall not be hired for any
assignment that, by its nature, may be in conflict with another assignment of
the Consultant for the same or for another Client.
- c. Conflicting
 (iii) Relationship with the Client's staff: a Consultant (including its Experts and Sub-consultants) that has a close business or family relationship with a professional staff of the Borrower (or of the Client, or of implementing agency, or of a recipient of a part of the Bank's financing) who are directly or indirectly involved in any part of (i) the preparation of the Terms of

	Reference for the assignment, (ii) the selection process for the Contract, or (iii) the supervision of the Contract, may not be awarded a Contract, unless the conflict stemming from this relationship has been resolved in a manner acceptable to the Bank throughout the selection process and the execution of the Contract.
4. Unfair Competitive Advantage	4.1 Fairness and transparency in the selection process require that the Consultants or their Affiliates competing for a specific assignment do not derive a competitive advantage from having provided consulting services related to the assignment in question. To that end, the Client shall indicate in the Data Sheet and make available to all Consultants together with this RFP all information that would in that respect give such Consultant any unfair competitive advantage over competing Consultants.
5. Fraud and Corruption	5.1 The Bank requires compliance with the Bank's Anti-Corruption Guidelines and its prevailing sanctions policies and procedures as set forth in the WBG's Sanctions Framework, as set forth in Section 6.
	5.2 In further pursuance of this policy, Consultants shall permit and shall cause their agents (where declared or not), subcontractors, sub-consultants, service providers, suppliers, and their personnel, to permit the Bank to inspect all accounts, records and other documents relating to any shortlisting process, Proposal submission, and contract performance (in the case of award), and to have them audited by auditors appointed by the Bank.
6. Eligibility	6.1 The Bank permits consultants (individuals and firms, including Joint Ventures and their individual members) from all countries to offer consulting services for Bank-financed projects.
	6.2 Furthermore, it is the Consultant's responsibility to ensure that its Experts, joint venture members, Sub-consultants, agents (declared or not), sub-contractors, service providers, suppliers and/or their employees meet the eligibility requirements as established by the Bank in the Applicable ProcurementRegulations.
	6.3 As an exception to the foregoing ITC 6.1 and ITC 6.2 above:
a. Sanctions	6.3.1 A Consultant that has been sanctioned by the Bank, pursuant to the Bank's Anti- Corruption Guidelines and in accordance with its prevailing sanctions policies and procedures as set forth in the WBG's Sanctions Framework as described in Section VI, Fraud and Corruption, paragraph 2.2 d., shall be ineligible to be shortlisted for, submit proposals for, or be awarded a Bank-financed contract or benefit from a Bank-financed contract, financially or otherwise, during such period of time as the Bank shall have determined. The list of debarred firms and individuals is available at the electronic address specified in the Data Sheet .
b. Prohibitions	6.3.2 Firms and individuals of a country or goods manufactured in a country may be ineligible if so indicated in Section 5 (Eligible Countries) and:
	(a) as a matter of law or official regulations, the Borrower's country prohibits commercial relations with that country, provided that the Bank is satisfied that such exclusion does not preclude effective competition for the provision of Services required; or
	(b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower's Country prohibits any import of goods from that country or any payments to any country, person, or entity in that country.
c. Restrictions for State-Owned Enterprises	6.3.3 State-owned enterprises or institutions in the Borrower's country may be eligible to compete and be awarded a contract only if they can establish, in a manner acceptable to the Bank, that they: (i) are legally and financially autonomous, (ii) operate under commercial law, and (iii) are not under supervision of the Client.
d. Restrictions for Public Employees	6.3.4 Government officials and civil servants of the Borrower's country are not eligible to be included as Experts, individuals, or members of a team of Experts in the Consultant's Proposal unless:
	 (i) the services of the government official or civil servant are of a unique and exceptional nature, or their participation is critical to project implementation; and
	(ii) their hiring would not create a conflict of interest, including any conflict with

employment or other laws, regulations, or policies of the Borrower. 6.3.5 A firm that is under a sanction of debarment by the Borrower from being awarded a e. Borrower Debarment contract is eligible to participate in this procurement, unless the Bank, at the Borrower's request, is satisfied that the debarment; (a) relates to fraud or corruption, and (b) followed a judicial or administrative proceeding that afforded the firm adequate due process. **B.** Preparation of Proposals 7. General In preparing the Proposal, the Consultant is expected to examine the RFP in detail. 7.1 Material deficiencies in providing the information requested in the RFP may result in rejection Considerations of the Proposal. 8. Cost of 81 The Consultant shall bear all costs associated with the preparation and submission of **Preparation of** its Proposal, and the Client shall not be responsible or liable for those costs, regardless of the **Proposal** conduct or outcome of the selection process. The Client is not bound to accept any proposal, and reserves the right to annul the selection process at any time prior to Contract award, without thereby incurring any liability to the Consultant. The Proposal, as well as all correspondence and documents relating to the Proposal 9. Language 9.1 exchanged between the Consultant and the Client, shall be written in the language(s) specified in the Data Sheet. **10.** Documents 10.1 The Proposal shall comprise the documents and forms listed in the Data Sheet. **Comprising the** 10.2 If specified in the Data Sheet, the Consultant shall include a statement of an Proposal undertaking of the Consultant to observe, in competing for and executing a contract, the Client country's laws against fraud and corruption (including bribery). 10.3 The Consultant shall furnish information on commissions, gratuities, and fees, if any, paid or to be paid to agents or any other party relating to this Proposal and, if awarded, Contract execution, as requested in the Financial Proposal submission form (Section 4). 11. Only One The Consultant (including the individual members of any Joint Venture) shall submit 11.1 Proposal only one Proposal, either in its own name or as part of a Joint Venture in another Proposal. If a Consultant, including any Joint Venture member, submits or participates in more than one proposal, all such proposals shall be disqualified and rejected. This does not, however, preclude a Sub-consultant, or the Consultant's staff from participating as Key Experts and Non-Key Experts in more than one Proposal when circumstances justify and if stated in the Data Sheet. 12. Proposal 12.1 **The Data Sheet** indicates the period during which the Consultant's Proposal must Validity remain valid after the Proposal submission deadline. 12.2 During this period, the Consultant shall maintain its original Proposal without any change, including the availability of the Key Experts, the proposed rates and the total price. If it is established that any Key Expert nominated in the Consultant's Proposal was 12.3 not available at the time of Proposal submission or was included in the Proposal without his/her confirmation, such Proposal shall be disgualified and rejected for further evaluation, and may be subject to sanctions in accordance with ITC 5. a. Extension of The Client will make its best effort to complete the negotiations and award the 12.4 contractwithin the proposal's validity period. However, should the need arise, the Client may Validity Period request, in writing, all Consultants who submitted Proposals prior to the submission deadline to extend the Proposals' validity. 12.5 If the Consultant agrees to extend the validity of its Proposal, it shall be done without any change in the original Proposal and with the confirmation of the availability of the Key Experts, except as provided in ITC 12.7. 12.6 The Consultant has the right to refuse to extend the validity of its Proposal in which case such Proposal will not be further evaluated. **b. Substitution of** 12.7 If any of the Key Experts become unavailable for the extended validity period, the **Key Experts at** Consultant shall seek to substitute him withanother Key Expert. The Consultant shall provide a Validitv written adequate justification and evidence satisfactory to the Client together with the Extension substitution request. In such case, a substitute Key Expert shall have equal or better qualifications and experience than those of the originally proposed Key Expert. The technical

evaluation score, however, will remain to be based on the evaluation of the CV of the original Key Expert.

12.8 If the Consultant fails to provide a substitute Key Expert with equal or better qualifications, or if the provided reasons for the replacement or justification are unacceptable to the Client, such Proposal will be rejected with the prior Bank's no objection.

12.9 The Consultant shall not subcontract the whole of the Services.

c. Sub-Contracting

of Proposals

Considerations

Specific

13. Clarification 13.1 The Consultant may request a clarification of any part of the RFP during the period and Amendment indicated in the Data Sheet before the Proposals' submission deadline. Any request for of RFP clarification must be sent in writing, or by standard electronic means, to the Client's address indicated in the Data Sheet. The Client will respond in writing, or by standard electronic means, and will send written copies of the response (including an explanation of the query but without identifying its source) to all Consultants. Should the Client deem it necessary to amend the RFP as a result of a clarification, it shall do so following the procedure described below:

- 13.1.1 At any time before the proposal submission deadline, the Client may amend the RFP by issuing an amendment in writing or by standard electronic means. The amendment shall be sent to all Consultants and will be binding on them. The Consultants shall acknowledge receipt of all amendments in writing.
- 13.1.2 If the amendment is substantial, the Client may extend the proposal submission deadline to give the Consultants reasonable time to take an amendment into account in their Proposals.

13.2 The Consultant may submit a modified Proposal or a modification to any part of it at any time prior to the proposal submission deadline. No modifications to the Technical or Financial Proposal shall be accepted after the deadline.

14. Preparation 14.1 While preparing the Proposal, the Consultant must give particular attention to the following:

- 14.1.1 If a Consultant considers that it may enhance its expertise for the assignment by associating with other consultants in the form of a Joint Venture or as Subconsultants, it may do so.
 - 14.1.2 The Client may indicate in the **Data Sheet** the estimated Key Experts' time input (expressed in person-month) or the Client's estimated total cost of the assignment, but not both. This estimate is indicative and the Proposal shall be based on the Consultant's own estimates for the same.
 - 14.1.3 If stated in the Data Sheet, the Consultant shall include in its Proposal at least the same time input (in the same unit as indicated in the Data Sheet) of Key Experts, failing which the Financial Proposal will be adjusted for the purpose of comparison of proposals and decision for award in accordance with the procedure in the **Data Sheet**.
 - 14.1.4 For assignments under the Fixed-Budget selection method, the estimated Key Experts' time input is not disclosed. Total available budget, with an indication whether it is inclusive or exclusive of taxes, is given in the Data Sheet, and the Financial Proposal shall not exceed this budget.

15. Technical The Technical Proposal shall be prepared using the Standard Forms provided in 15.1Proposal Format Section 3 of the RFP and shall comprise the documents listed in the Data Sheet. The Technical Proposal shall not include any financial information. A Technical Proposal containing material and Content financial information shall be declared non-responsive.

> 15.1.1 Consultant shall not propose alternative Key Experts. Only one CV shall be submitted for each Key Expert position. Failure to comply with this requirement will make the Proposal non-responsive.

15.2 Depending on the nature of the assignment, the Consultant is required to submit a Full Technical Proposal (FTP), or a Simplified Technical Proposal (STP) as indicated in the Data Sheet and using the Standard Forms provided in Section 3 of the RFP.

The Financial Proposal shall be prepared using the Standard Forms provided in 16. Financial 16.1 Section 4 of the RFP. It shall list all costs associated with the assignment, including (a)

Proposal	remuneration for Key Experts and Non-Key Experts, (b) reimbursable expenses indicated in the Data Sheet .		
a. Price Adjustment	16.2 For assignments with a duration exceeding 18 months, a price adjustment provision for foreign and/or local inflation for remuneration rates applies if so stated in the Data Sheet .		
b. Taxes	16.3 The Consultant and its Sub-consultants and Experts are responsible for meeting all tax liabilities arising out of the Contract unless stated otherwise in the Data Sheet . Information on taxes in the Client's country is provided in the Data Sheet .		
c. Currency of Proposal	16.4 The Consultant may express the price for its Services in the currency or currencies as stated in the Data Sheet . If indicated in the Data Sheet , the portion of the price representing local cost shall be stated in the national currency.		
d. Currency of Payment	16.5 Payment under the Contract shall be made in the currency or currencies in which the payment is requested in the Proposal.		
C. Submission, Opening and Evaluation			
17. Submission, Sealing, and Marking of Proposals	17.1 The Consultant shall submit a signed and complete Proposal comprising the documents and forms in accordance with ITC 10 (Documents Comprising Proposal). Consultants shall mark as "CONFIDENTIAL" information in their Proposals which is confidential to their business. This may include proprietary information, trade secrets or		

hand. If specified in the Data Sheet, the Consultant has the option of submitting its Proposals electronically.
17.2 An authorized representative of the Consultant shall sign the original submission letters in the required format for both the Technical Proposal and, if applicable, the Financial Proposal and shall initial all pages of both. The authorization shall be in the form of a written power of attorney attached to the Technical Proposal.

commercial or financially sensitive information. The submission can be done by mail or by

17.2.1 A Proposal submitted by a Joint Venture shall be signed by all members so as to be legally binding on all members, or by an authorized representative who has a written power of attorney signed by each member's authorized representative.

17.3 Any modifications, revisions, interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Proposal.

17.4 The signed Proposal shall be marked "ORIGINAL", and its copies marked "COPY" as appropriate. The number of copies is indicated in the **Data Sheet**. All copies shall be made from the signed original. If there are discrepancies between the original and the copies, the original shall prevail.

17.5 The original and all the copies of the Technical Proposal shall be placed inside a sealed envelope clearly marked **"TECHNICAL PROPOSAL**", "[Name of the Assignment]", [reference number], [name and address of the Consultant], and with a warning **"DO NOT OPEN UNTIL [INSERT THE DATE AND THE TIME OF THE TECHNICAL PROPOSAL SUBMISSION DEADLINE]**."

17.6 Similarly, the original Financial Proposal (if required for the applicable selection method) and its copies shall be placed inside of a separate sealed envelope clearly marked "FINANCIAL PROPOSAL" "[Name of the Assignment]", [reference number], [name and address of the Consultant], and with a warning "DO NOT OPEN WITH THE TECHNICAL PROPOSAL."

17.7 The sealed envelopes containing the Technical and Financial Proposals shall be placed into one outer envelope and sealed. This outer envelope shall be addressed to the Client and bear the submission address, RFP reference number, the name of the assignment, the Consultant's name and the address, and shall be clearly marked "Do Not Open Before [insert the time and date of the submission deadline indicated in the Data Sheet]".

17.8 If the envelopes and packages with the Proposal are not sealed and marked as required, the Client will assume no responsibility for the misplacement, loss, or premature opening of the Proposal.

17.9 The Proposal or its modifications must be sent to the address indicated in the **Data Sheet** and received by the Client no later than the deadline indicated in the **Data Sheet**, or any extension to this deadline. Any Proposal or its modification received by the Client after the deadline shall be declared late and rejected, and promptly returned unopened.

18. Confident- iality	Consultant s Financial Pr recommenda any other par Award the C	In the time the Proposals are opened to the time the Contract is awarded, the hould not contact the Client on any matter related to its Technical and/or oposal. Information relating to the evaluation of Proposals and award tions shall not be disclosed to the Consultants who submitted the Proposals or to 'ty not officially concerned with the process, until the Notification of Intention to portract. Exceptions to this ITC are where the Client notifies Consultants of the evaluation of the Technical Proposals.
	improperly t	attempt by Consultants or anyone on behalf of the Consultant to influence he Client in the evaluation of the Proposals or Contract award decisions may rejection of its Proposal, and may be subject to the application of prevailing Bank's cedures.
	time of Contr	withstanding the above provisions, from the time of the Proposals' opening to the act award publication, if a Consultant wishes to contact the Client or the Bank on lated to the selection process, it shall do so only in writing.
19. Opening of Technical Proposals	Proposals in t (in person, or address are s sealed and sh	Client's evaluation committee shall conduct the opening of the Technical the presence of the Consultants' authorized representatives who choose to attend online if this option is offered in the Data Sheet). The opening date, time and the tated in the Data Sheet . The envelopes with the Financial Proposal shall remain nall be securely stored with a reputable public auditor or independent authority opened in accordance with ITC 23.
	and the count the name of presence or modifications	ne opening of the Technical Proposals the following shall be read out: (i) the name try of the Consultant or, in case of a Joint Venture, the name of the Joint Venture, the lead member and the names and the countries of all members; (ii) the absence of a duly sealed envelope with the Financial Proposal; (iii) any is to the Proposal submitted prior to proposal submission deadline; and (iv) any ation deemed appropriate or as indicated in the Data Sheet .
20. ProposalsEv aluation	no access to	ect to provision of ITC 15.1, the evaluators of the Technical Proposals shall have the Financial Proposals until the technical evaluation is concluded and the Bank objection", if applicable.
	proposal sub	Consultant is not permitted to alter or modify its Proposal in any way after the mission deadline except as permitted under ITC 12.7. While evaluating the e Client will conduct the evaluation solely on the basis of the submitted Technical Proposals.
21. Evaluation of Technical Proposals	of their resp criteria, sub- will be given	Client's evaluation committee shall evaluate the Technical Proposals on the basis onsiveness to the Terms of Reference and the RFP, applying the evaluation criteria, and point system specified in the Data Sheet . Each responsive Proposal a technical score. A Proposal shall be rejected at this stage if it does not respond aspects of the RFP or if it fails to achieve the minimum technical score indicated heet .
22. Financial Proposals for QBS		ng the ranking of the Technical Proposals, when the selection is based on quality ne top-ranked Consultant is invited to negotiate the Contract.
	Financial Pre evaluation co	cial Proposals were invited together with the Technical Proposals, only the oposal of the technically top-ranked Consultant is opened by the Client's mmittee. All other Financial Proposals are returned unopened after the Contract are successfully concluded and the Contract is signed.
23. Public Opening of Financial Proposals (for	(if applicable responsive to	r the technical evaluation is completed and the Bank has issued its no objection), the Client shall notify those Consultants whose Proposals were considered non- o the RFP and TOR or did not meet the minimum qualifying technical score, n the following:
QCBS, FBS, and LCS methods)	(i)	their Proposal was not responsive to the RFP and TOR or did not meet the minimum qualifying technical score;
	(ii)	provide information relating to the Consultant's overall technical score, as well as scores obtained for each criterion and sub-criterion;
	(iii)	their Financial Proposals will be returned unopened after completing the selection process and Contract signing; and

(iv) notify them of the date, time and location of the public opening of the Financial Proposals and invite them to attend.

23.2 The Client shall simultaneously notify in writing those Consultants whose Proposals were considered responsive to the RFP and TOR, and that have achieved the minimum qualifying technical score, advising them the following:

- (i) their Proposal was responsive to the RFP and TOR and met the minimum qualifying technical score;
- (ii) provide information relating to the Consultant's overall technical score, as well as scores obtained for each criterion and sub-criterion;
- (iii) their Financial Proposal will be opened at the public opening of Financial Proposals; and
- (iv) notify them of the date, time and location of the public opening and invite them for the opening of the Financial Proposals.

23.3 The opening date should allow the Consultants sufficient time to make arrangements for attending the opening and shall be no less than seven (7) Business Days from the date of notification of the results of the technical evaluation, described in ITC 23.1 and 23.2.

23.4 The Consultant's attendance at the opening of the Financial Proposals (in person, or online if such option is indicated in the **Data Sheet**) is optional and is at the Consultant's choice.

23.5 The Financial Proposals shall be opened publicly by the Client's evaluation committee in the presence of the representatives of the Consultants and anyone else who chooses to attend. Any interested party who wishes to attend this public opening should contact the client as indicated in the **Data Sheet**. Alternatively, a notice of the public opening of Financial Proposals may be published on the Client's website, if available. At the opening, the names of the Consultants, and the overall technical scores, including the break-down by criterion, shall be read aloud. The Financial Proposals will then be inspected to confirm that they have remained sealed and unopened. These Financial Proposals shall be then opened, and the total prices read aloud and recorded. Copies of the record shall be sent to all Consultants who submitted Proposals and to the Bank.

- 24. Correction of 24.1 Activities and items described in the Technical Proposal but not priced in the Financial Proposal, shall be assumed to be included in the prices of other activities or items, and no corrections are made to the Financial Proposal.
 - a. Time-Based Contracts 24.1.1 If a Time-Based contract form is included in the RFP, the Client's evaluation committee will (a) correct any computational or arithmetical errors, and (b) adjust the prices if they fail to reflect all inputs included for the respective activities or items included in the Technical Proposal. In case of discrepancy between (i) a partial amount (sub-total) and the total amount, or (ii) between the amount derived by multiplication of unit price with quantity and the total price, or (iii) between words and figures, the former will prevail. In case of discrepancy between the Technical and Financial Proposals in indicating quantities of input, the Technical Proposal prevails and the Client's evaluation committee shall correct the quantification indicated in the Financial Proposal, apply the relevant unit price included in the Financial Proposal to the corrected quantity, and correct the total Proposal cost.
 - **b. Lump-Sum** 24.1.2 If a Lump-Sum contract form is included in the RFP, the Consultant is deemed to have **Contracts** included all prices in the Financial Proposal, so neither arithmetical corrections nor price adjustments shall be made. The total price, net of taxes understood as per ITC 25, specified in the Financial Proposal (Form FIN-1) shall be considered as the offered price. Where there is a discrepancy between the amount in words and the amount figures, the amount in words shall prevail.
- **25. Taxes** 25.1 The Client's evaluation of the Consultant's Financial Proposal shall exclude taxes and duties in the Client's country in accordance with the instructions in the **Data Sheet**.
- **26. Conversion**26.1For the evaluation purposes, prices shall be converted to a single currency using the
selling rates of exchange, source and date indicated in the **Data Sheet**.

Currency 27. Combined **Quality and Cost Evaluation Quality** and 27.1 In the case of QCBS, the total score is calculated by weighting the technical and **Cost-Based** financial scores and adding them as per the formula and instructions in the **Data Sheet**. The Selection (QCBS) Consultant with the Most Advantageous Proposal, which is the Proposal that achieves the highest combined technical and financial scores, will be invited for negotiations. 27.2 In the case of FBS, those Proposals that exceed the budget indicated in ITC 14.1.4 of **b.** Fixed-Budget Selection(FBS) the Data Sheet shall be rejected. The Client will select the Consultant with the Most Advantageous Proposal, which is 27.3 the highest-ranked Technical Proposal that does not exceed the budget indicated in the RFP, and invite such Consultant to negotiate the Contract. c. Least-Cost 27.4In the case of Least-Cost Selection (LCS), the Client will select the Consultant with the Selection Most Advantageous Proposal, which is the Proposal with the lowest evaluated total price among those Proposals that achieved the minimum qualifying technical score, and invite such a Consultant to negotiate the Contract. **D.** Negotiations and Award 28. Negotiations 28.1 The negotiations will be held at the date and address indicated in the Data Sheet with the Consultant's representative(s) who must have written power of attorney to negotiate and sign a Contract on behalf of the Consultant. 28.2 The Client shall prepare minutes of negotiations that are signed by the Client and the Consultant's authorized representative. a. Availability of 28.3The invited Consultant shall confirm the availability of all Key Experts included in the Proposal as a pre-requisite to the negotiations, or, if applicable, a replacement in accordance **Key Experts** with ITC 12. Failure to confirm the Key Experts' availability may result in the rejection of the Consultant's Proposal and the Client proceeding to negotiate the Contract with the next-ranked Consultant. 28.4 Notwithstanding the above, the substitution of Key Experts at the negotiations may be considered if due solely to circumstances outside the reasonable control of and not foreseeable by the Consultant, including but not limited to death or medical incapacity. In such case, the Consultant shall offer a substitute Key Expert within the period of time specified in the letter of invitation to negotiate the Contract, who shall have equivalent or better qualifications and experience than the original candidate. b. Technical 28.5 The negotiations include discussions of the Terms of Reference (TORs), the proposed methodology, the Client's inputs, the special conditions of the Contract, and finalizing the **Negotiations** "Description of Services" part of the Contract. These discussions shall not substantially alter the original scope of services under the TOR or the terms of the contract, lest the quality of the final product, its price, or the relevance of the initial evaluation be affected. c. Financial 28.6 The negotiations include the clarification of the Consultant's tax liability in the **Negotiations** Client's country and how it should be reflected in the Contract. 287 If the selection method included cost as a factor in the evaluation, the total price stated in the Financial Proposal for a Lump-Sum contract shall not be negotiated. 288 In the case of a Time-Based contract, unit rates negotiations shall not take place, except when the offered Key Experts and Non-Key Experts' remuneration rates are much higher than the typically charged rates by consultants in similar contracts. In such case, the Client may ask for clarifications and, if the fees are very high, ask to change the rates after consultation with the Bank. The format for (i) providing information on remuneration rates in the case of Quality Based Selection; and (ii) clarifying remuneration rates' structure under ITC 28.8 above, is provided in Appendix A to the Financial Form FIN-3: Financial Negotiations – Breakdown of Remuneration Rates.

a.

29. Conclusion 29.1 The negotiations are concluded with a review of the finalized draft Contract, which of Negotiations then shall be initialed by the Client and the Consultant's authorized representative.

29.2 If the negotiations fail, the Client shall inform the Consultant in writing of all pending issues and disagreements and provide a final opportunity to the Consultant to respond. If disagreement persists, the Client shall terminate the negotiations informing the Consultant of the reasons for doing so. After having obtained the Bank's no objection, the Client will invite the next-ranked Consultant to negotiate a Contract. Once the Client commences negotiations with the next-ranked Consultant, the Client shall not reopen the earlier negotiations.

30. Award of
Contract30.1 After completing the negotiations, the Client shall obtain the Bank's no objection to
the negotiated draft Contract, if applicable; sign the Contract; publish the award information
as per the instructions in the Data Sheet; and promptly notify the other Consultants.

30.2 The Consultant is expected to commence the assignment on the date and at the location specified in the **Data Sheet**.

31. Procuremen 31.1 The procedures for making a Procurement-related Complaint are as specified in the Data Sheet.
 Complaint

Section 2. Instructions to Consultants

E. Data Sheet

ITC Reference	A. General
2.1	Name of the Client: Assam Rural Infrastructure and Agricultural Services (ARIAS) Society Method of selection: Quality and Cost Based Selection (QCBS) as per the Applicable Regulations: Procurement Regulations for IPF Borrowers dated 1stJuly 2016 available on <u>www.worldbank.org</u>
2.2	Financial Proposal to be submitted together with Technical Proposal: Yes The name of the assignment is: "Technology based yield estimation at village level in 12 districts of 6 Agro climatic zones of Assam for Paddy crop under APART "
2.3	A pre-proposal conference will be held: Yes (Consultants may also send queries by email and the same will be answered by email) and will also be uploaded in the website of ARIAS Society without disclosing the identity of the answers and questions. Date & time of pre-proposal conference: 20th October2022, at 11:00 am Address: ARIAS Society, Project Coordination Unit, Agriculture Complex, Khanapara, G.S. Road, Guwahati-781022 (Assam, India); Telephone: 0361-2332125; email: spd@arias.in
	Contact person/conference coordinator: State Project Director, ARIAS Society
2.4	 The Client will provide the following inputs: a. Project Appraisal Document (PAD) and Project Implementation Plan (PIP), Environment Management Framework (EMF), Social Management Framework (SMF), Indigenous Peoples Development Framework (IPF) and other relevant available documents b. Facilitate access to relevant available project data and report that is required to fulfill the tasks outlined in the ToR c. Ensuring where appropriate, cooperation of concerned line departments for smooth conduct of the assignment d. Synthesis report of agri enterprise survey done under the project
6.3.1	A list of debarred firms and individuals is available at the Bank's external website: www.worldbank.org/debarr
	B. Preparation of Proposals
9.1	This RFP has been issued in the English language . Proposals shall be submitted in English language . All correspondence exchange shall be in English language .
10.1	The Proposal shall comprise the following: For FULL TECHNICAL PROPOSAL (FTP):
	 (1) Power of Attorney to sign the Proposal (2) TECH-1 (3) TECH-2 (4) TECH-3 (5) TECH-4 (6) TECH-5 (7) TECH-6 AND 2ndInner Envelope with the Financial Proposal : (1) FIN-1 (2) FIN 2
	(2) FIN-2 (3) FIN-3
	(4) FIN-4
10.2	Statement of Undertaking is required: Yes

11.1	Participation of Sub-consultants, Key Experts and Non-Key Experts in more than one Proposal is permissible : Yes
12.1	Proposals must remain valid for 120calendar days after the proposal submission deadline i.e., until: 9th March2022.
13.1	Clarifications may be requested no later than: 20th October 2022. The contact information for requesting clarifications is: ARIAS Society, Project Coordination Unit, Agriculture Complex, Khanapara, G.S. Road, Guwahati-781022 (Assam, India); Tel: 0361-2332125; email: <u>spd@arias.in</u>
14.1.2	The total estimated time input of the Vey Ermente' would be for a period 25 5 months
14.1.2	The total estimated time input of the Key Experts' would be for a period 25.5 months. (Ref. to the Terms of Reference at Section 7 of the RFP). However, this estimate is indicative only and the Proposal by the consultants shall be based on the Consultant's own estimates for the individual experts/staff to be engaged under the assignment.
14.1.3	Not Applicable
14.1.4 and 27.2	Not Applicable
15.2	The format of the Technical Proposal to be submitted is: FULL Technical Proposal (FTP) Submission of the Technical Proposal in a wrong format may lead to the Proposal being deemed non-responsive to the RFP requirements.
16.1	 Reimbursable expenses may be given as follows: (1) a per diem allowance, including hotel, for experts for every day of absence from the home office for the purposes of the Services; (2) cost of travel by the most appropriate means of transport and the most direct practicable route; (3) cost of office accommodation, including overheads and back-stop support; (4) communications costs;
	 (4) communications costs, (5) cost of purchase or rent or freight of any equipment required to be provided by the Consultants; (6) cost of reports production (including printing) and delivering to the Client; (7) other allowances where applicable and provisional or fixed sums (if any)]
16.2	A price adjustment provision applies to remuneration rates: No .
16.3	Information on the Consultant's tax obligations in the Client's country should be checked with tax experts.
16.4	The Financial Proposal shall be stated in local currency: In Indian Rupee only.
	C. Submission, Opening and Evaluation
17.1	The Consultants shall <u>NOT</u> have the option of submitting their Proposals electronically.
17.4	 The Consultant must submit: (a) Technical Proposal: one (1) original and 2 copies; and soft copy in a Pen drive. (b) Financial Proposal: one (1) original.
17.7 and 17.9	The Proposals must be submitted no later than: Date: 9 th November2022; Time: 2.00 PM (IST) The Proposal submission address is: ARIAS Society, Project Coordination Unit, Agriculture Complex, Khanapara, G.S. Road, Guwahati-781022 (Assam, India); Tel: 0361-2332125; email: spd@arias.in
19.1	An online option of the opening of the Technical Proposals is offered: No The opening shall take place at: "same as the Proposal submission address " Date 9th November 2022; Time: 2.30 PM (IST)

19.2	In addition, the following information will be read aloud at the opening of the Technical Proposals: name of the firm along with their sub-consultant(s), if any .				
21.1 [for FTP]Consultant's technical proposal shall be evaluated in two parts. Part A (as men shall be the mandatory criteria that the consultants must meet. Technical Prop Consultants who do not meet the criteria in Part A, shall not be further evalua proposal shall be rejected.			osals of		
		ical Proposal of Consultants, who meet the the scoring scheme contained in Part B bel		luated further	
	Part	A: Mandatory Criteria:			
	S. No.	Criteria	Documents Requ	ired	
	1.	Document (s) to demonstrate that the firm is in the business for the last three (3) years;	Certificate of Registration, An Sheet, Certificate from Accountant, etc		
	2	Agency/service provider should have executed projects/assignments related to yield estimation of paddy crop during the last 3 years, with any State Govt of Central Govt.	Completion or acceptance including experience, if an worked in similar assignmen	ny, of having	
	3	The agency/ service provider should have conducted minimum 2 assignments of similar nature (technology based) in the yield estimation of paddy crop.	Supporting Documents		
	Part B: Evaluation Criteria:				
	(i) Spo (The r (ii) Ac	ia, sub-criteria, and point system for the ev ecific experience of the Consultant (as a relevant assignment includes Organization' dequacy and quality of the proposed me erms of Reference (TOR): [40]	firm) relevant to the Assign s experience in	ment :[10]	
	Ī	<i>a)</i> Technical approach and methodolog	y	[20 points]	
		b) Work plan		[15 points]	
		c) Organization & Staffing	otal points for criterion (ii)	[5 points] [40]	
	r	{ <u>Notes to Consultant</u> : the Client will asses responds to the TORs, work plan is realistic balanced and has an appropriate skills mix;	and implementable; overall tee	im composition is	
	(0	Cey Experts' qualifications and compete consultants to refer Section 7 for details on <u>{Notes to Consultant</u> : each position number Form TECH-6 to be prepared by the Consulta	competence required) corresponds to the same for t	-	
	(0	consultants to refer Section 7 for details on <u>{Notes to Consultant</u> : each position number Form TECH-6 to be prepared by the Consultant <u>1)</u> Position K-1: Team Leader (1)	a competence required) corresponds to the same for t ant}	he Key Experts in [10points]	
	(0	consultants to refer Section 7 for details on { <u>Notes to Consultant</u> : each position number Form TECH-6 to be prepared by the Consulta	competence required) corresponds to the same for t ant} (3)-(3X8) Points	he Key Experts in	

	The number of points to be assigned to each of the above positions shall b	e determined	
	considering the following three sub-criteria and relevant percentage weights:		
	 General qualifications (general education, training, and experience): Adequacy for the Assignment (relevant education, training, experience in the 	[18%] [80%]	
	sector/similar assignments): 3) Experience in similar assignment in North East	[2%]	
	Total weight.		
	(iv)Transfer of knowledge (training) program (approach & methodology): [0]	
	(v)Participation by nationals among proposed Key Experts : [0]		
	Total points for the five criteria = 100 The minimum technical score (St) required to pass is : 75		
	Public Opening of Financial Proposals		
22	Quality and Cost Based Selection ("QCBS")method is followed		
23	An online option of the opening of the Financial Proposals is offered: No		
23.5	'N/A'		
25.1	For the purpose of the evaluation, the Client will exclude: (a) all local identifiable indirect taxes e.g. GST levied on the contract's invoices; and (b) all additional local indirect tax on the remuneration of services rendered by non-resident experts in the Client's country. If a Contract is awarded, at Contract negotiations, all such taxes will be discussed, finalized (using the itemized list as a guidance but not limiting to it) and added to the Contract amount as a separate line, also indicating which taxes shall be paid by the Consultant and which taxes are withheld and paid by the Client on behalf of the Consultant.		
26.1	Prices shall be quoted in Indian Rupees only.		
27.1 (Quality and Cost Based Selection)	The lowest evaluated Financial Proposal (Fm) is given the maximum financi of 100. The formula for determining the financial scores (Sf) of all other Proposals as following:		
	Sf = 100 x Fm/ F, in which "Sf" is the financial score, "Fm" is the lowest price, and "F" the price of the proposal under consideration.		
	The weights given to the Technical (T) and Financial (P) Proposals are: T = 80% P = 20%		
	Proposals are ranked according to their combined technical (St) and financial (S the weights (T = the weight given to the Technical Proposal; P = the weight Financial Proposal; T + P = 1) as following: $S = St \times T\% + Sf \times P\%$.		
	D. Negotiations and Award		
	Expected date and address for contract negotiations:		
28.1	Date: 4th Week of November 2022. Address: ARIAS Society, Project Coordination Unit, Agriculture Complex, Khanapara, G.S. Boad Guwahati-781022 (Assam, India): Tel: 0361-2332125:email: spd@arias.in		
28.1			
28.1 30.1	Address: ARIAS Society, Project Coordination Unit, Agriculture Complex, K	<u>in</u> Detion of the	

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30.2	Expected date for the commencement of the Services: Date: 4thWeek of November2022 in Assam	
31	The procedures for making a Procurement-related Complaint are detailed in the "Procurement Regulations for IPF Borrowers (Annex III)." If a Consultant wishes to make a Procurement-related Complaint, the Consultant should submit its complaint following these procedures, in writing (by the quickest means available, that is either 	
	Title/position: State Project Director, ARIAS Society	
	Client: ARIAS Society	
	Email address: <u>spd@arias.in</u>	
	In summary, a Procurement-related Complaint may challenge any of the following:1. the terms of this Request for Proposal;	
	 the Client's decision to exclude a Consultant from the procurement process prior to the award of contract; and the Client's decision to award the contract 	

Section 3. Technical Proposal – Standard Forms

{<u>Notes to Consultant</u> shown in brackets { }throughout Section 3 provide guidance to the Consultant to prepare the Technical Proposal; they should not appear on the Proposals to be submitted.}

CHECKLIST OF REQUIRED FORMS

Required for FTPFORMDESCRIPTION		Page Limit*	
✓	TECH-1	Technical Proposal Submission Form.	2 pages
✓ applicable	TECH-1 Attachment	-1 Attachment If the Proposal is submitted by a joint venture (JV), attach a letter of intent or a copy of an existing agreement.	
✓ applicable	Power of Attorney	• No pre-set format/form.	As required
		• In the case of a Joint Venture, several are required: a power of attorney for the authorized representative of each JV member, and a power of attorney for the representative of the lead member to represent all JV members	
✓	TECH-2	Consultant's Organization and Experience.	
√	TECH-2A	A. Consultant's Organization	2 pages
1	TECH-2B	B. Consultant's Experience	15 pages
√	ТЕСН-З	Comments or Suggestions on the Terms of Reference and on Counterpart Staff and Facilities to be provided by the Client.	
\checkmark	TECH-3A	A. On the Terms of Reference	2 pages
√	TECH-3B	B. On the Counterpart Staff and Facilities	2 pages
1	TECH-4	Description of the Approach, Methodology, and Work Plan for Performing the Assignment	20 pages
~	TECH-5	Work Schedule and Planning for Deliverables	5 pages
✓ TECH-6		Team Composition, Key Experts Inputs, and attached Curriculum Vitae (CV)	25 pages

* The page count for Mandatory Criteria as mentioned at ITC clause 21.1 (Data Sheet) is 50 pages. All pages of the original Technical and Financial Proposal shall be initialed by the same authorized representative of the Consultant who signs the Proposal.

FORM TECH-1

TECHNICAL PROPOSAL SUBMISSION FORM

{Location, Date}

To:

The State Project Director ARIAS Society, Project Coordination Unit, Agriculture Complex, Khanapara, G.S. Road, Guwahati-781022 (Assam, India);

Dear Sirs:

We, the undersigned, offer to provide the consulting services for **Hiring of Consulting Services for: Technology based yield estimation at village level in 12 districts of 6 Agro climatic zones of Assam for Paddy crop under APART** in accordance with your Request for Proposals(RFP) dated *[Insert Date]* and our Proposal. We are hereby submitting our Proposal, which includes this Technical Proposal and a Financial Proposal sealed in a separate envelope

{If the Consultant is a joint venture, insert the following: We are submitting our Proposal a joint venture with: {Insert a list with full name and the legal address of each member, and indicate the lead member}.We have attached a copy {insert: "of our letter of intent to form a joint venture" or, if a JV is already formed, "of the JV agreement"} signed by every participating member, which details the likely legal structure of and the confirmation of joint and severable liability of the members of the said joint venture.

{OR

If the Consultant's Proposal includes Sub-consultants, insert the following: We are submitting our Proposal with the following firms as Sub-consultants: {Insert a list with full name and address of each Sub-consultant.}

We hereby declare that:

- (a) All the information and statements made in this Proposal are true and we accept that any misinterpretation or misrepresentation contained in this Proposal may lead to our disqualification by the Client and/or may be sanctioned by the Bank.
- (b) Our Proposal shall be valid and remain binding upon us for the period of time specified in the Data Sheet, ITC 12.1.
- (c) We have no conflict of interest in accordance with ITC 3.
- (d) We meet the eligibility requirements as stated in ITC 6, and we confirm our understanding of our obligation to abide by the Bank's policy in regard to Fraud and Corruption as per ITC 5.
- (e) We, along with any of our sub-consultants, subcontractors, suppliers, or service providers for any part of the contract, are not subject to, and not controlled by any entity or individual that is subject to, a temporary suspension or a debarment imposed by the World Bank Group or a debarment imposed by the World Bank Group in accordance with the Agreement for Mutual Enforcement of Debarment Decisions between the World Bank and other development banks. Further, we are not ineligible under the Client's country laws or official regulations or pursuant to a decision of the United Nations Security Council;
- (f) Except as stated in the Data Sheet, ITC 12.1, we undertake to negotiate a Contract on the basis of the proposed Key Experts. We accept that the substitution of Key Experts for reasons other than those stated in ITC Clause12 and ITC Clause28.4 may lead to the termination of Contract negotiations.

(g) Our Proposal is binding upon us and subject to any modifications resulting from the Contract negotiations.

We undertake, if our Proposal is accepted and the Contract is signed, to initiate the Services related to the assignment no later than the date indicated in ITC 30.2 of the Data Sheet.

We understand that the Client is not bound to accept any Proposal that the Client receives.

We remain,

Yours sincerely,

Signature (of Consultant's authorized representative) {In full and initials}:

Full name:{insert full name of authorized representative}Title:{insert title/position of authorized representative}Name of Consultant (company's name or JV's name):Capacity:{insert the person's capacity to sign for the Consultant}Address:{insert the authorized representative's address}Phone/fax:{insert the authorized representative's phone and fax number, if applicable}Email:{insert the authorized representative's email address}

{For a joint venture, either all members shall sign or only the lead member, in which case the power of attorney to sign on behalf of all members shall be attached}

Form TECH-2

CONSULTANT'S ORGANIZATION AND EXPERIENCE

Form TECH-2: a brief description of the Consultant's organization and an outline of the recent experience of the Consultant that is most relevant to the assignment. In the case of a joint venture, information on similar assignments shall be provided for each partner. For each assignment, the outline should indicate the names of the Consultant's Key Experts and Sub-consultants who participated, the duration of the assignment, the contract amount (total and, if it was done in a form of a joint venture or a sub-consultancy, the amount paid to the Consultant), and the Consultant's role/involvement.

A - Consultant's Organization

- 1. Provide here a brief description of the background and organization of your company, and in case of ajoint venture of each member for this assignment.
- 2. Include organizational chart, a list of Board of Directors, and beneficial ownership

B - Consultant's Experience

1. List only previous similar assignments successfully completed.

2. List only those assignments for which the Consultant was legally contracted by the Client as a company or was one of the joint venture members. 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 relevant documents and references if so requested by the Client.

Duration (MM/YYYY)	Assignment name/& brief description of main deliverables/outputs	Name of Client & Country of Assignment	Approx. Contract value (in US\$ equivalentor Indian Rupees)/ Amount paid to your firm	Role on the Assignment
{e.g., Jan.2009– Apr.2010}	{e.g., "Improvement quality of": designed master plan for rationalization of ; }	{e.g., Ministry of , country}	{e.g., US\$1 mill/US\$0.5 mill}	{e.g., Lead partner in a JV A&B&C}
{e.g., Jan- May 2008}	{e.g., "Support to sub- national government" : drafted secondary level regulations on}	{e.g., municipality of, country}	{e.g., US\$0.2 mil/US\$0.2 mil}	{e.g., sole Consultant}

FORM TECH-3

COMMENTS AND SUGGESTIONS ON THE TERMS OF REFERENCE, COUNTERPART STAFF, AND FACILITIES TO BE PROVIDED BY THE CLIENT

Form TECH-3: comments and suggestions on the Terms of Reference that could improve the quality/effectiveness of the assignment; and on requirements for counterpart staff and facilities, which are provided by the Client, including: administrative support, office space, local transportation, equipment, data, etc.

A - On the Terms of Reference

{improvements to the Terms of Reference, if any}

B - On Counterpart Staff and Facilities

{comments on counterpart staff and facilities to be provided by the Client. For example, administrative support, office space, local transportation, equipment, data, background reports, etc., if any}

Form TECH-4

DESCRIPTION OF APPROACH, METHODOLOGY, AND WORK PLAN IN RESPONDING TO THE TERMS OF REFERENCE

Form TECH-4: a description of the approach, methodology and work plan for performing the assignment, including a detailed description of the proposed methodology and staffing for training, if the Terms of Reference specify training as a specific component of the assignment.

{Suggested structure of your Technical Proposal (in FTP format):

- a) Technical Approach and Methodology
- b) Work Plan
- c) Organization and Staffing}
- a) <u>Technical Approach and Methodology.</u>{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.**}
- b) <u>Work Plan.</u>{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 Client), 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.}
- c) <u>Organization and Staffing.</u>{Please describe the structure and composition of your team, including the list of the Key Experts, Non-Key Experts and relevant technical and administrative support staff.}

FORM TECH-5

WORK SCHEDULE AND PLANNING FOR DELIVERABLES

N°	Deliverables ¹ (D)	Months										
1		1	2	3	4	5	6	7	8	9	 n	TOTAL
D-1	{e.g., Deliverable #1: Report A											
	1) data collection											
	2) drafting											
	3) inception report											
	4) incorporating comments											
	5)											
	6) delivery of final report to Client}											
D-2	{e.g., Deliverable #2:}											
n												

1 List the deliverables with the breakdown for activities required to produce them and other benchmarks such as the Client's approvals. For phased assignments, indicate the activities, delivery of reports, and benchmarks separately for each phase.

2 Duration of activities shall be indicated in the form of a bar chart.

3. Include a legend, if necessary, to help read the chart.

FORM TECH-6

TEAM COMPOSITION, ASSIGNMENT, AND KEY EXPERTS' INPUTS

N°	Name	Expert's input (in person/month) per each Deliverable (listed in TECH-5)							Total time-input (in Months)						
		Position		D-1		D-2	D-3			D			Home	Field	Total
KEY EX	XPERTS														
K-1	{e.g.,Mr.Abbbb}	[Team Leader]	[Home]	[2 month]		[1.0]	[1.0]								
			[Field]	[0.5 m]		[2.5]	[0]								1
K-2															
											T	T			1
K-3															
		·								Subtotal					
NON-K	KEY EXPERTS														
N-1			[Home]												
			[Field]												
N-2															
									1						
	•	·	•	•		•	•	•		Subtotal					
										Total					

1 For Key Experts, the input should be indicated individually for the same positions as required under the Data Sheet ITC21.1.

2 Months are counted from the start of the assignment/mobilization. One (1) month equals twenty two (22) working (billable) days. One working (billable) day shall be not less than eight (8) working (billable) hours.

3 "Home" means work in the office in the expert's country of residence. "Field" work means work carried out in Assam.

Full time input

(Tech. Form-6...... Continued next page)

Form TECH-6 (Continued)

CURRICULUM VITAE (CV)

Position Title and No.	{e.g., K-1, 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}

Trainings in the relevant field:

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, and contact information of previous clients and employing organization(s) who can be contacted for references. Past employment that is not relevant to the assignment does not need to be included.}

Period	Employing organization and your title/position. Contact information for references	Country	Summary of activities performed relevant to the Assignment
[e.g., May 2005- present]	[e.g., Ministry of, advisor/consultant to For references: Tel/e-mail; Mr. Hbbbbb, deputy minister]		

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
{List all deliverables/tasks as in TECH- 5 in which the Expert will be involved	

Expert's contact information: (e-mail....., phone.....)

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 Client, and/or sanctions by the Bank.
{dav/month/year}

		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Name of Expert	Signature	Date {day/month/year}
Name of authorized Representative of the Con	Signature	Date
(the same who signs the P		

Important Note: CVs not signed by the Respective Experts and by the Authorized Representative of the Consultant (the same person who signs the Technical Proposal) may not be considered for technical evaluation and marking.

Section 4. Financial Proposal - Standard Forms

{*Notes to Consultant* shown in brackets { } provide guidance to the Consultant to prepare the Financial Proposals; they should not appear on the Financial Proposals to be submitted.}

Financial Proposal Standard Forms shall be used for the preparation of the Financial Proposal according to the instructions provided in Section 2.

- FIN-1 Financial Proposal Submission Form
- FIN-2 Summary of Costs
- FIN-3 Breakdown of Remuneration
- FIN-4 Reimbursable expenses

FORM FIN-1 Financial Proposal Submission Form

{Location, Date}

To:

The State Project Director, ARIAS Society, Project Coordination Unit, Agriculture Complex, Khanapara, G.S. Road, Guwahati-781022 (Assam, India);

Dear Sirs:

We, the undersigned, offer to provide the consulting services for [Insert title of assignment] in accordance with your Request for Proposal dated [Insert Date] and our Technical Proposal.

Our attached Financial Proposal is for the amount of {Indicate the corresponding to the amount(s) currency(ies)} {Insert amount(s) in words and figures}, *excluding of all indirect local taxes (GST) in accordance with ITC 25.1 in the Data Sheet.* The estimated amount of local indirect taxes (i.e. GST) is INR {Insert amount in words and figures} which shall be confirmed or adjusted, if needed, during negotiations. {Please note that all amounts shall be the same as in Form FIN-2}.

Our Financial Proposal shall be valid and remain binding upon us, subject to the modifications resulting from Contract negotiations, for the period of time specified in the Data Sheet, ITC 12.1.

Commissions and gratuities paid or to be paid by us to an agent or any third party relating to preparation or submission of this Proposal and Contract execution, paid if we are awarded the Contract, are listed below:

Name and Address	Amount and	Purpose of Commission
of Agents	Currency	or Gratuity

{If no payments are made or promised, add the following statement: "No commissions or gratuities have been or are to be paid by us to agents or any third party relating to this Proposal and Contract execution."}

We understand you are not bound to accept any Proposal you receive. We remain, Yours sincerely,

Signature (of Consultant's authorized representative) {In full and initials}:

Full name:	{insert full name of authorized representative}
Title:	{insert title/position of authorized representative}
Name of Con	sultant (company's name or JV's name):
Capacity:	{insert the person's capacity to sign for the Consultant}
Address:	{insert the authorized representative's address}
Phone/fax:	{insert the authorized representative's phone and fax number, if applicable}
Email:	{insert the authorized representative's email address}

{For a joint venture, either all members shall sign or only the lead member/consultant, in which case the power of attorney to sign on behalf of all members shall be attached}

Form FIN-2 Summary of Costs

Item	Cost
	{Consultant must state the proposed Costs in
	accordance with Clause 16.4 of the Data Sheet;
	delete columns which are not used}
	Indian Rupees
Cost of the Financial Proposal	
Including:	
(1) Remuneration	
(2)Reimbursables	
Total Cost of the Financial Proposal:	
{Should match the amount in Form FIN-1}	
Indirect Local Tax Estimates - to be discussed	and finalized at the negotiations if the Contract is
awarded	
(i) GST	
(ii) Any other applicable Taxes etc.	
Total Estimate for Indirect Local Tax:	

Footnote: Payments will be made in the currency(ies) expressed above (Reference to ITC 16.4).

FORM FIN-3 BREAKDOWN OF REMUNERATION

When used for Lump-Sum contract assignment, information to be provided in this Form shall only be used to demonstrate the basis for the calculation of the Contract's ceiling amount; to calculate applicable taxes at contract negotiations; and, if needed, to establish payments to the Consultant for possible additional services requested by the Client. This Form shall not be used as a basis for payments under Lump-Sum contracts

No.	Name	Position (as in TECH-6)	Person-month Remuneration	Time Input in Person/Month	Indian Rupee
			Rate	(from TECH-6)	(INR)
Key Ex	perts				
K-1			[Home]		
			[Field]		
K-2			[Home]		
			[Field]		
K-3			[Home]		
			[Field]		
K-4			[Home]		
			[Field]		
Non-K	ey Experts				
N-1			[Home]		
			[Field]		
N-2			[Home]		
			[Field]		
N-3			[Home]		
			[Field]		
				Total Costs	

FORM FIN-4 BREAKDOWN OF REIMBURSABLE EXPENSES

When used for Lump-Sum contract assignment, information to be provided in this Form shall only be used to demonstrate the basis for calculation of the Contract ceiling amount, to calculate applicable taxes at contract negotiations and, if needed, to establish payments to the Consultant for possible additional services requested by the Client. This form shall not be used as a basis for payments under Lump-Sum contracts

N°	Type of Reimbursable Expenses	Unit	Unit Cost	Quantity	Indian Rupee (INR)
	{e.g., Per diem allowances**}	{Day}			
	{e.g., International flights}	{Ticket}			
	{e.g., In/out airport transportation}	{Trip}			
	{e.g., Communication costs between Insert place and Insert place}				
	{ e.g., reproduction of reports}				
	{e.g., Office rent}				
	{Training of the Client's personnel – if required in TOR}				

Legend:

"Per diem allowance" is paid for each night the expert is required by the Contract to be away from his/her usual place of residence. Client can set up a ceiling.

Section 5. Eligible Countries

In reference to ITC6.3.2, for the information of Consultants, at the present time firms, goods and services from the following countries are excluded from this selection:

Under the ITC 6.3.2 (a): None

Under the ITC 6.3.2 (b): None

Section 6. Fraud and Corruption

(This Section 6, Fraud and Corruption <u>shall not</u> be modified)

1. Purpose

1.1 The Bank's Anti-Corruption Guidelines and this annex apply with respect to procurement under Bank Investment Project Financing operations.

2. Requirements

2.1 The Bank requires that Borrowers (including beneficiaries of Bank financing); bidders (applicants/proposers), consultants, contractors and suppliers; any sub-contractors, sub-consultants, service providers or suppliers; any agents (whether declared or not); and any of their personnel, observe the highest standard of ethics during the procurement process, selection and contract execution of Bank-financed contracts, and refrain from Fraud and Corruption.

2.2 To this end, the Bank:

- a. Defines, for the purposes of this provision, the terms set forth below as follows:
 - i. "corrupt practice" is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
 - ii. "fraudulent practice" is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;
 - iii. "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
 - iv. "coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
 - v. "obstructive practice" is:
 - (a) deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
 - (b) acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under paragraph 2.2 e. below.
- b. Rejects a proposal for award if the Bank determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/ or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;
- c. In addition to the legal remedies set out in the relevant Legal Agreement, may take other appropriate actions, including declaring misprocurement, if the Bank determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the procurement process, selection and/or execution of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner at the time they knew of the practices;
- d. Pursuant to the Bank's Anti- Corruption Guidelines and in accordance with the Bank's prevailing sanctions policies and procedures, may sanction a firm or individual, either indefinitely or for a stated period of time, including by publicly declaring such firm or individual ineligible (i) to be awarded or

otherwise benefit from a Bank-financed contract, financially or in any other manner;¹ (ii) to be a nominated² sub-contractor, consultant, manufacturer or supplier, or service provider of an otherwise eligible firm being awarded a Bank-financed contract; and (iii) to receive the proceeds of any loan made by the Bank or otherwise to participate further in the preparation or implementation of any Bank-financed project;

e. Requires that a clause be included in bidding/request for proposals documents and in contracts financed by a Bank loan, requiring (i) bidders (applicants/proposers),, consultants, contractors, and suppliers, and their sub-contractors, sub-consultants, service providers, suppliers, agents personnel, permit the Bank to inspect³ all accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have them audited by auditors appointed by the Bank.

¹ For the avoidance of doubt, a sanctioned party's ineligibility to be awarded a contract shall include, without limitation, (i) applying for pre-qualification, expressing interest in a consultancy, and bidding, either directly or as a nominated subcontractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider, in respect of such contract, and (ii) entering into an addendum or amendment introducing a material modification to any existing contract.

² A nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider (different names are used depending on the particular bidding document) is one which has been: (i) included by the bidder in its pre-qualification application or bid because it brings specific and critical experience and know-how that allow the bidder to meet the qualification requirements for the particular bid; or (ii) appointed by the Borrower.

³ Inspections in this context usually are investigative (i.e., forensic) in nature. They involve fact-finding activities undertaken by the Bank or persons appointed by the Bank to address specific matters related to investigations/audits, such as evaluating the veracity of an allegation of possible Fraud and Corruption, through the appropriate mechanisms. Such activity includes but is not limited to: accessing and examining a firm's or individual's financial records and information, and making copies thereof as relevant; accessing and examining any other documents, data and information (whether in hard copy or electronic format) deemed relevant for the investigation/audit, and making copies thereof as relevant; interviewing staff and other relevant individuals; performing physical inspections and site visits; and obtaining third party verification of information.

Section 7. TERMS OF REFERENCE

Draft Terms of Reference (ToR) For technology based yield estimation at village level in 12 districts of 6 Agro climatic zones of Assam for Paddy crop

A. BACKGROUND

- Government of Assam (GoA), through the Government of India has received a loan of US\$200 million from the World Bank (W.B.) for implementation of the Assam Agribusiness and Rural Transformation Project (APART). The Project Development Objective (PDO) is to "add value and improve resilience of selected agriculture value chains, focusing on smallholder farmers and to advance Assam's COVID-19 response". The targeted districts (undivided as of 1stApril, 2016) are Nagaon, Sonitpur, Barpeta, Karbi Anglong, Kamrup, Dhubri, Golaghat, Kokrajhar, Lakhimpur, Darrang, Cachar, Sivasagar, Jorhat, Goalpara, Morigaon, hailakandi, Dhemaji, Bongaigaon and Nalbari. The project is adopting a value chain and clusters approach to achieve the targeted objectives. The prioritized value chains are (i) cereals (rice, maize), (ii) pulses (lentil, pea, blackgram), (iii) spices and condiments (ginger, turmeric, mustard), (iv) fruits (banana, pineapple) & vegetables, (v) livestock (pork, milk) & fish and (vi) specialty commodities (eri and muga silk).
- 2. APART would support, value addition in the production and post-harvest segments of selected agricultural value-chains; facilitate agribusiness investments through inclusive business models that provide opportunities to smallholder farmers as well as stimulate the establishment of new small and medium agribusiness enterprises; and support resilience of agricultural production systems in order to better manage increasing production and commercial risks associated with climate change and marketing of agro produce, in the targeted districts. The project would adopt a cluster strategy within the targeted districts to generate economies of scale; promote vertical and horizontal links between local agricultural enterprises; enable diffusion of innovations; leverage network externalities; and channel public support for services and infrastructure. By adopting a cluster approach, the project would enable the value chain participants to develop competitive and innovative products that meet market demands rapidly and successfully.
- 3. There are four components of APART. The first component-A is Enabling Agri Enterprise Development, with sub components being (i) enhancing state capacity to attract private investments, (ii) setting up an Agribusiness Enterprise Development and Promotion Facility (EDPF) (iii) Agribusiness Investment Fund (AIF) support (iv) establishing sector stewardship councils. The second component-B is Facilitating Agro Cluster Development with subcomponents being- (i) support establishment of cluster level Industry Associations (IAs), (ii) supply chain support (roads, warehouses, markets). The third component-C is Fostering Market Led Production and Resilience Enhancement with sub components being (i) promoting climate resilient technologies and their adoption (ii) facilitating market linkages through market intelligence and product aggregation (iii) facilitating access to and responsible use of financial services. The fourth component is project Management, Monitoring and Learning.
- 4. The Key Project Indicators (KPIs) are:
 - a) Farmers reached with agricultural assets or services (number), of which female (percentage);
 - b) Value add measured by:

- i) Increase in quality as measured by price premium of commodities sold by beneficiaries in the selected value chains;
- ii) Share of selected commodities sold through new marketing channels.
- c) Resilience measured by: Farmers adopting improved agricultural technology (gender disaggregated).
- 5. Subcomponent C-1 (Promoting climate resilient technologies and their adoption) aims at sustainable increase in production and productivity of the priority value chains, and promote the adoption of climate resilient solutions. This would be achieved by geographically targeted approach for the integrated development of these value chains and will make key investments in the production clusters of prioritized value chains Among others, the Project is also supporting Govt of Assam to (i) to improve the ability of the Directorate of Agriculture to support farmers with critical services and investments; and (ii) to improve farmers' capacity to access agricultural technologies, services and inputs and establish a suitable mechanism for their transparent and affordable supply.
- 6. One of the important services to be provided to farmers is agricultural insurance. Currently, the State is a beneficiary of the Pradhan Mantri Fasal Bima Yojana (PMFBY) scheme of Govt of India in which the insurance claims are based on the results of Crop Cutting Experiments (CCEs). In the long run the State intends to migrate to technology-based yield estimation for crop insurance which is based on the use of advanced technologies like remote sensing, GIS, artificial intelligence and machine learning. In view of the above, the Project intends to carry out a yield estimation pilot at village level in 12 districts of six agro climatic zones of Assam for paddy crop. Accordingly, Operational Project Implementation Unit (OPIU) -Agriculture now intends to hire the services of a qualified consulting firm initially **for period of one year** to conduct the said pilot, extendable to further periods depending upon Project requirement and duration.

B. OBJECTIVE OF THE CONSULTANCY SERVICE

7. The overall objective is yield estimation at village level in 12 districts of 6 Agro climatic zones of Assam for Paddy crop with use of advanced technology of Remote Sensing, GIS, Artificial Intelligence and Machine Learning. *After the success of the pilot in 12 Districts, the initiative may be scaled up to other districts of Assam.*

C. SCOPE OF CONSULTANCY SERVICE

- 8. The agency is required to conduct the below mentioned activities in the 12 districts of Assam, using advanced/ innovative technological tools.
 - a) Field Data Collection
 - b) Satellite Data Processing for crop map and areas
 - c) Smart Sampling and CCE data Collection
 - d) Yield Modeling
 - e) Accuracy Evaluation (RMSE, NRMSE, t-test, MAPE, correlation coefficient, Index of Agreement)
- 9. **Paddy Crop Identification at Village Level:** The agency must conduct a detailed study for identifying the weather conditions, under which rice is cultivated including the weather conditions prevailing throughout the crop life cycle. In addition, the agency shall also record the changing weather conditions during the crop life

cycle.

- 10. **Paddy acreage estimation at village level:** The agency must conduct paddy acreage estimation at village level in the selected districts. This paddy acreage estimation at village level will help in agricultural monitoring and management. This will also enable prudent decision making during any crop failure event and for ensuing crop insurance.
- 11. **Paddy crop yield estimation at village level:** The agency must conduct detailed analysis of the crop production in the selected districts which will be used to arrive at productivity (yield) estimates at village level. In addition, the agency must conduct ground truthing to make corrective adjustments in the yield data. The accuracy of the final yield data shall be not be less than 85-90% when compared to actual yields after harvest. *The paddy yield will be measured at a moisture level of 17-20%.*
- 12. **Crop health monitoring at village level:** The agency must put in place a crop health monitoring system, which will help farmers to identify any visible disease, pest attack, physiological disorders in the crop fields and help to limit the spread of the disease, pest, disorder throughout the field.
- 13. **Soil moisture maps for study area:** The agency must generate and develop Soil moisture maps of the selected areas. The use of remote sensing and GIS techniques will introduce reliable alternatives to traditional methods which would provide information about the Soil Moisture Content (SMC). The study will help to predict the SMC using remote sensing data.
- 14. **Fixed Wing UAV to be flown in minimum of 100 sq km per District**: The consulting firm will ensure that at least one fixed wing Unmanned Aerial Vehicle (UAV) covers an area of every 100 sq km in the assigned district. The coverage will be at least twice in the crop season i.e. (i) to track crop growth and health analysis in mid-season (ii) near to harvest.
- 15. **Processed Mosaic images of UAV:** The consulting firm will provide processed mosaic images of the area assigned to the Client with suitable description/ explanations.
- 16. **Minimum 300 Crop Cutting Experiments (CCEs) per district to be done for Model calibration:** As back up and to ensure verification of the yield data arrived through remote sensing and GIS, the consulting firm will also conduct at least 10 **Crop Cutting Experiments** (CCEs) per block & at least 300 CCEs per district. The final data shall be provided to the Client along with necessary analysis and interpretation.
- 17. **Two stage report:** The yield estimates will be provided at two stages i.e. mid season (when the crop is in productive phase) and finally within 15 days after the harvest. The accuracy of final yield estimates should be minimum of 85-90% when compared to actual yield data.
- 18. Data to be used using the conducting the study:
 - a) Ground data(Crop Survey, CCE, Soil, Weather Data, any other data)–Summary tables should be provided for each conducted study
 - b) Satellite data (Descriptions with number of scenes and dates)
 - c) Fixed Wing UAV data (Type of UAV, Type of sensor, Map of UAV coverage, Total coverage, Dates)
 - d) Any other relevant data

- 19. **Technologies to be used:** The Client desires that the following technologies should be used to accomplish the assignment with Sl. 1-5 being mandatory:
 - a) High Resolution Satellite data (Optical and microwave)
 - b) Fixed Wing Unmanned Aerial Vehicle(UAV)
 - c) Advanced multi-parameter crop models
 - d) Mobile Applications for Field Data Collection
 - e) Artificial intelligence/ Machine learning approach
 - f) Sensor Networks
 - g) Internet of Things
 - h) Field based digital photographs
 - i) Handheld instruments
 - j) Statistically sound Sampling Plans

20. Results to be included in the report-

- a) Description of field data (summary tables with statistical analysis and any interpretation)
- b) Crop Area Estimations (statistics, maps, and accuracy)
- c) Suitability of Smart Sampling (stratification efficiency)
- d) CCE data description
- e) Yield estimation and its evaluation

Note: The Consultant shall ensure that the yield estimation technology used in the assignment has been validated by the Govt of India and shall have to submit documentary evidence for the same, as a part of the technical proposal.

D. SERVICES/FACILITIES TO BE PROVIDED BY THE CLIENT

- 21. The client shall facilitate necessary cooperation of its concerned officials at the Project HQ i.e. Operational Project Implementation Unit (OPIU)Agriculture & at Districts i.e. District Agriculture Offices, District Agricultural Technology Management Agencies (ATMAs), Agriculture Development Officers (ADOs) etc
- 22. Available reports and documents like Project Implementation Plan (PIP), Project Appraisal Document (PAD), Environment and Social Management Framework of APART etc.

E. DELIVERABLES & PAYMENT SCHEDULE

23. The following will be schedule of payments for deliverables completed

Sl	Deliverable	Timeline from contract signing (Months)	% payment
1	Inception report (covering methodology, workplan, teams to be mobilized etc)	01	10
2	Mid season report	03	20
3	Draft report	Two weeks before harvest of paddy crop	30
4	Final report	Within 15 days after harvest of	40

Sl	Deliverable	Timeline from contract signing (Months)	% payment
		paddy crop	
		Total	100

F. CONSULTANT'S INPUTS & RESOURCES REQIRED

24. The following is the list of **key experts** to be deployed by the Consultant. However, CVs of positions at Sl. 1-4 only shall be used for evaluation of the technical proposal. The Consultant may deploy additional experts to accomplish the assignment successfully within the stipulated time:

Sl*	Position	Qualification & Experience	Indicative Role in assignment
K-1	Team Leader (Time input = 6 months)	Post-Graduate in Agri and allied Science or a closely related field from any recognized University/ approved Institution. At least 10 years of professional experience (crop identification, yield estimation, etc.) Fluency in Hindi and English, knowledge of local language will be an advantage	 Overall supervision and guidance of the team for the consultancy assignment work. Shall act as the first touch point for all correspondence from the Client. Shall ensure timely submission of all reports Addressing the queries of Client (if any), during the assignment
К-2	Remote Sensing Experts -3 nos (Time input- 2.5 Months each)	Masters in geology, geoinformatics, Geographic Information Systems, or remote sensing At least 7 years of professional experience in remote sensing/GIS software Masters degree/ diploma (min 2 yrs duration) in Remote Sensing/ GIS or a closely related field. Fluency in Hindi and English, knowledge of local language will be an advantage	 Interpret and analyze many types of aerial photographs and satellite images. Proficiently using GIS software to conduct the study and gather spatial and non-spatial information accordingly. May use color infrared photos to map areas of irrigated cropland, or to determine areas of insect or disease infestation in crop lands.
K-3	Agriculture Experts -2 (Time input - 2 months each)	 At least 7 years of professional experience with in yield identification and estimation relating to agri/ horti crops. Post Graduate/Masters degree in Agriculture/ Horticulture from any recognized University/ Govt. approved Institutions. 	 Providing inputs on crop cycle and stages at which photographs to be taken by UAV Be instrumental in identification and mapping of disease infestation, pest attack and physiological disorders in the crop fields. Support conduct of CCEs and ground truthing exercises Any other task assigned by the Team Leader
K-4	Crop Modellers -1 (Time input - 2months)	 Masters degree in the relevant field High level expertise in agronomy, crop physiology, crop/plant organ modeling, data management and 	 Developing and applying crop models for crop management, precision agriculture etc Contributing towards crop identification,

Sl*	Position	Qualification & Experience	Indicative Role in assignment
		analysis, and data visualization supported by at least 7 years of professional experience.	acreage estimation and yield estimation exercisesAny other task assigned by the Team Leader
K-5	Data Analysts- 1 no (Time input- 2months)	Master in Statistics/Economics or closely related subject. At least 7 years of professional experience in high level statistical analysis.	 Working on data administration, data management etc Carrying out analysis of the field data Interpretation of analysis results Preparation of reports based on the results of data analysis Any other task assigned by the Team Leader
K-6	Machine Learning and Artificial Intelligence expert-1 no (Time input - 2months)	Masters in Applied M.Sc./Engineering in Data Science & Artificial Intelligence/ Computer science. At least 7 years of professional experience in the field of machine learning and artificial intelligence.	 To create machines and software programs that can think for themselves. Analyzing the algorithms that could be used to solve problems with respect to technology based yield estimation. Exploring and visualizing data to gain an understanding of it Any other task assigned by the Team Leader
K-7	Statistics Experts-1nos (Time input 2months)	MastersdegreeinStatistics,Mathematics, Economics, or any otherclosely related subject.Atleast7yearsofprofessionalexperienceworkinginstatisticalagencies or equivalent.Fluency in Hindi and English, knowledgeof local language will be an advantage	 Statistically analyzing the field survey data Look for outlying data and working on needed corrections Working on descriptive, inferential and advanced statistical applications Any other task assigned by the Team Leader

*K= Key Expert; N= Non Key Expert

PART II

Section 8. Conditions of Contract and Contract Forms

STANDARD FORM OF CONTRACT

Consultant's Services Lump-Sum **CONTRACT FOR CONSULTANT'S SERVICES**

Lump-Sum

Project Name: Assam Agribusiness and Rural Transformation Project (APART)

Project No.: P155617; IBRD loan No.8780-IN

Contract No.:

For Hiring of Consultancy Services for "Technology based yield estimation at village level in 12 districts of 6 Agro climatic zones of Assam for Paddy crop under APART"

between

Assam Rural Infrastructure and Agricultural Services Society

ARIAS Society, Project Coordination Unit, Agriculture Complex, Khanapara, G.S. Road, Guwahati-781022 (Assam, India); Tel: 0361-2332004; email: <u>spd@arias.in</u>

and

[Name of the Consultant]

Dated: _____

CONTRACT FOR CONSULTING SERVICES

CONTRACT No. [insert]

THIS CONTRACT ("Contract") is entered into this [insert starting date of assignment], by and between [insert Client's name] ("the Client") having its principal place of business at [insert Client's address], and [insert Consultant's name] ("the Consultant") having its principal office located at [insert Consultant's address¹].

WHEREAS, the Client has received financing from the World Bank which is being used forthis contract (and accordingly the relevant provisions of Bank's Procurement Regulations and Anti-Corruption Guidelines shall be applicable to this Contract), and the Client wishes to have the Consultant perform the services hereinafter referred to, and

WHEREAS, the Consultant is willing to perform these services,

NOW THEREFORE THE PARTIES hereby agree as follows:

1.	Services	(i)	The Consultant shall perform the services specified in Annex A, "Terms of Reference and Scope of Services," which is made an integral part of this Contract ("the Services").
		(ii)	The Consultant shall provide the personnel listed in Annex B, "Consultant's Personnel," to perform the Services.
		(iii)	The Consultant shall submit to the Client the reports in the form and within the time periods specified in Annex C, "Consultant's Reporting Obligations."
2.	Term	starting	nsultant shall perform the Services during the period commencing [insert g date] and continuing through [insert completion date], or any other period be subsequently agreed by the parties in writing.
3.	Payment	A.	Ceiling
			For Services rendered pursuant to Annex A, the Client shall pay the Consultant an amount not to exceed <i>[insert amount]</i> . This amount has been established based on the understanding that it includes all of the Consultant's costs and profits as well as any tax obligation that may be imposed on the Consultant.
		В.	Schedule of Payments
			The schedule of payments is specified below ² :
		[insert	detailed list of payments specifying amount of each installment, deliverable/output for which the installment is paid and currency]
		C	Payment Conditions

C. <u>Payment Conditions</u>

Payment shall be made in *[specify currency]*, no later than 30 days following submission by the Consultant of invoices in duplicate to the

¹ Avoid use of "P.O. Box" address

 $^{^2}$ Fill in based on required outputs as described in Annex A (Terms of Reference) and Annex C (Reporting Requirements). Avoid front-loaded payments. Advance payments in contracts with firms require a bank guarantee for the same amount.

Coordinator designated in paragraph 4.

Payments shall be made to Consultant's bank account [insert banking details. If payment by bank wire is not possible, prior Bank approval to apply cash payments option shall be obtained]

4. Project A. <u>Coordinator</u>. **Administration**

The Client designates Mr./Ms. *[insert name and job title]* as Client's Coordinator; the Coordinator will be responsible for the coordination of activities under this Contract, for acceptance and approval of the reports and of other deliverables by the Client and for receiving and approving invoices for the payment.

B. <u>Reports</u>.

The reports listed in Annex C, "Consultant's Reporting Obligations," shall be submitted in the course of the assignment, and will constitute the basis for the payments to be made under paragraph 3.

- **5. Performance Standards** The Consultant undertakes to perform the Services with the highest standards of professional and ethical competence and integrity. The Consultant shall promptly replace any employees assigned under this Contract that the Client considers unsatisfactory.
- 6. Inspections and Auditing The Consultant shall permit, and shall cause its Sub-Consultants to permit, the Bank and/or persons or auditors appointed by the Bank to inspect and/or audit its accounts and records and other documents relating to the submission of the Proposal to provide the Services and performance of the Contract. Any failure to comply with this obligation may constitute a prohibited practice subject to contract termination and/or the imposition of sanctions by the Bank (including without limitations determination of ineligibility) in accordance with prevailing Bank's sanctions procedures.
- **7. Confidentiality** The Consultants shall not, during the term of this Contract and within two years after its expiration, disclose any proprietary or confidential information relating to the Services, this Contract or the Client's business or operations without the prior written consent of the Client.
- 8. Ownership Material of Any studies reports or other material, graphic, software or otherwise, prepared by the Consultant for the Client under the Contract shall belong to and remain the property of the Client. The Consultant may retain a copy of such documents and software³.
- 9. Consultant Not to be Engaged in Certain Activities
 The Consultant agrees that, during the term of this Contract and after its termination, the Consultants and any entity affiliated with the Consultant, shall be disqualified from providing goods, works or services (other than consulting services that would not give rise to a conflict of interest) resulting from or closely related to the Consulting Services for the preparation or implementation of the Project
- **10. Insurance** The Consultant will be responsible for taking out any appropriate insurance

³ Restrictions about the future use of these documents and software, if any, shall be specified at the end of paragraph 8.

coverage.

- **11. Assignment** The Consultant shall not assign this Contract or sub-contract any portion of it without the Client's prior written consent.
- 12. Law Governing
Contract and
LanguageThe Contract shall be governed by the laws of [insert government], and the
language of the Contract shall be4 [insert language]
- 13. Dispute
Resolution⁵Any dispute arising out of the Contract, which cannot be amicably settled between
the parties, shall be referred to adjudication/arbitration in accordance with the
laws of the Client's country.
- **14. Termination** The Client may terminate this Contract with at least ten (10) working days prior

written notice to the Consultant after the occurrence of any of the events specified

in paragraphs (a) through (d) of this Clause:

- (a) If the Consultant does not remedy a failure in the performance of its obligations under the Contract within seven (7) working days after being notified, or within any further period as the Client may have subsequently approved in writing;
- (b) If the Consultant becomes insolvent or bankrupt;
- (c) If the Consultant, in the judgment of the Client or the Bank, has engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices (as defined in the prevailing Bank's sanctions procedures) in competing for or in performing the Contract.
- (d) If the Client, in its sole discretion and for any reason whatsoever, decides to terminate this Contract.

FOR THE CLIENT

FOR THE CONSULTANT

Signed by _____

Signed by _____

Title: _____

Title: _____

⁴ The law selected by the Client is usually the law of its country. However, the Bank does not object if the Client and the Consultant agree on another law. The language shall be English, French, or Spanish, unless the Contract is entered into with a domestic firm, in which case it can be the local language.

⁵ In case of a Contract entered into with a foreign Consultant, the following provision may be substituted for paragraph 13: "Any dispute, controversy or claim arising out of or relating to this Contract or the breach, termination or invalidity thereof, shall be settled by arbitration in accordance with the UNCITRAL Arbitration Rules as at present in force."

- Annex A: Terms of Reference and Scope of Services
- Annex B: Consultant's Personnel and corresponding unit rates
- Annex C: Consultant's Reporting Obligations