

STANDARD FORM OF CONTRACT
Contract for Consultant's Services
Lump-Sum

Project Name : **Assam Agribusiness & Rural Transformation Project (APART)**

Project ID : **P155617**

Loan No. : **IBRD No. 8780-IN;**

Procurement Plan Reference No. : **IN-ARIAS-5327-CS-CDS**

Contract No. : **ARIASS/APART/106/2016**

Assignment Title : **Technical Assistance to APART in increasing productivity and profitability of small and marginal farmers in rice-based cropping systems of Assam**

Contract Agreement between : **Assam Rural Infrastructure and Agricultural Services (ARIAS) Society of the Government of Assam OR "ARIAS Society"**
and
THE INTERNATIONAL RICE RESEARCH INSTITUTE(IRRI)

Dated : **16th March, 2018**

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Technical Proposal submitted by the Consultant (IRRI)..... 50

(attached separately) 50

I. Form of Contract

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This CONTRACT (hereinafter called the "Contract") is made the 16th day of the month of **March, 2018**, between, on the one hand, **Assam Rural Infrastructure and Agricultural Services (ARIAS) Society of the Government of Assam** (hereinafter called the "Client") and, on the other hand, **The International Rice Research Institute, or "IRRI", UPLB Los Banos, Laguna, 4030, Philippines**, (hereinafter called the "Consultant").

WHEREAS

- (a) the Client has requested the Consultant to provide certain consulting services as defined in this Contract (hereinafter called the "Services");
- (b) the Consultant, having represented to the Client that it has the required professional skills, expertise and technical resources, has agreed to provide the Services on the terms and conditions set forth in this Contract;
- (c) the Client has **received** a loan from the *International Bank for Reconstruction and Development (IBRD)* toward the cost of the Services and intends to apply a portion of the proceeds of this loan to eligible payments under this Contract, it being understood that (i) payments by the Bank will be made only at the request of the Client and upon approval by the Bank; (ii) such payments will be subject, in all respects, to the terms and conditions of the loan agreement, including prohibitions of 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 the decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations; and (iii) no party other than the Client shall derive any rights from the loan agreement or have any claim to the loan proceeds;

NOW THEREFORE the parties hereto hereby agree as follows:

1. The following documents attached hereto shall be deemed to form an integral part of this Contract:
 - (a) The General Conditions of Contract (including Attachment 1 "Fraud and Corruption");
 - (b) The Special Conditions of Contract;
 - (c) Appendices:

Appendix A:	Terms of Reference
Appendix B:	Key Experts
Appendix C:	Breakdown of Contract Price
Appendix D:	Form of Advance Payments Guarantee (deleted)
Appendix E:	Technical Proposal from IRRI

In the event of any inconsistency between the documents, the following order of precedence shall prevail: the Special Conditions of Contract; the General Conditions of Contract, including Attachment 1; Appendix A; Appendix B; Appendix C; Appendix D. Any reference to this Contract shall include, where the context permits, a reference to its Appendices.

2. The mutual rights and obligations of the Client and the Consultant shall be as set forth in the Contract, in particular:
 - (a) the Consultant shall carry out the Services in accordance with the provisions of the Contract; and
 - (b) the Client shall make payments to the Consultant in accordance with the provisions of the Contract.

IN WITNESS WHEREOF, the Parties hereto have caused this Contract to be signed in their respective names as of the day and year first above written.

For and on behalf of the **International Rice Research Institute or "IRRI"**, (**Authorized Representative**):

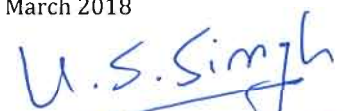
Signature:



Name: Dr. A.J. Poncin

Title: Head, IRRI Portfolio Management
International Rice Research Institute (IRRI),
UPLB Los Banos, Laguna, 4030, Philippines;
Tel: +63-0-49-536-2701; email: a.poncin@irri.org
Date: 16th March 2018

Witness:


Director IBARC, Varanasi
International Rice Research Institute

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For and on behalf of the **Assam Rural Infrastructure and Agricultural Services (ARIAS) Society of the Government of Assam**, (**Authorized Representative**):

Signature:



Name: Mr. Siddharth Singh
Title: State Project Director, ARIAS Society
Date: 16th March 2018

Witness:


Prasanna Kumar Pathak
Associate Director of Research
Assam Agricultural University
Jorhat 785013

II. General Conditions of Contract

A. GENERAL PROVISIONS

1. Definitions

1.1 Unless the context otherwise requires, the following terms whenever used in this Contract have the following meanings:

- (a) "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 **Special Conditions of Contract (SCC)**, as they may be issued and in force from time to time.
- (b) "Applicable Regulations" means Procurement Regulations for IPF Borrowers of date specified in **Special Conditions of Contract (SCC)**.
- (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 financing 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 entity selected by the Client to provide the Services under the signed Contract.
- (g) "Contract" means the legally binding written agreement signed between the Client and the Consultant and which includes all the attached documents listed in its paragraph 1 of the Form of Contract (the General Conditions (GCC), the Special Conditions (SCC), and the Appendices).
- (h) "Day" means a working day unless indicated otherwise.
- (i) "Effective Date" means the date on which this Contract comes into force and effect pursuant to Clause GCC 11.
- (j) "Experts" means, collectively, Key Experts, Non-Key Experts, or any other personnel of the Consultant, Sub-consultant or JV member(s) assigned by the Consultant to perform the Services or any part thereof under the Contract.
- (k) "Foreign Currency" means any currency other than the currency of the Client's country.
- (l) "GCC" means these General Conditions of Contract.
- (m) "Government" means the government of the Client's country.
- (n) "Joint Venture (JV)" means an association with or without a legal personality distinct from that of its members, of more than one entity where one member has the authority to conduct all businesses 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.
- (o) "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 Curricula Vitae (CV) was taken into account in the technical evaluation of the Consultant's proposal.
- (p) "Local Currency" means the currency of the Client's country.

- (q) "Non-Key Expert(s)" means an individual professional provided by the Consultant or its Sub-consultant to perform the Services or any part thereof under the Contract.
- (r) "Party" means the Client or the Consultant, as the case may be, and "Parties" means both of them.
- (s) "Procurement Regulations" means the World Bank's Procurement Regulations for IPF Borrowers,
- (t) "SCC" means the Special Conditions of Contract by which the GCC may be amended or supplemented but not over-written.
- (u) "Services" means the work to be performed by the Consultant pursuant to this Contract, as described in Appendix A hereto.
- (v) "Sub-consultants" means an entity to whom/which the Consultant subcontracts any part of the Services while remaining solely liable for the execution of the Contract.
- (w) "Third Party" means any person or entity other than the Government, the Client, the Consultant or a Sub-consultant.

2. Relationship between the Parties

2.1. Nothing contained herein shall be construed as establishing a relationship of master and servant or of principal and agent as between the Client and the Consultant. The Consultant, subject to this Contract, has complete charge of the Experts and Sub-consultants, if any, performing the Services and shall be fully responsible for the Services performed by them or on their behalf hereunder.

3. Law Governing Contract

3.1. This Contract, its meaning and interpretation, and the relation between the Parties shall be governed by the Applicable Law.

4. Language

4.1. This Contract has been executed in the language specified in the SCC, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract.

5. Headings

5.1. The headings shall not limit, alter or affect the meaning of this Contract.

6. Communications

6.1. Any communication required or permitted to be given or made pursuant to this Contract shall be in writing in the language specified in Clause GCC 4. Any such notice, request or consent shall be deemed to have been given or made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent to such Party at the address specified in the SCC.

6.2. A Party may change its address for notice hereunder by giving the other Party any communication of such change to the address specified in the SCC.

7. Location

7.1. The Services shall be performed at such locations as are specified in **Appendix A** hereto and, where the location of a particular task is not so specified, at such locations, whether in the Government's country or elsewhere, as the Client may approve.

8. Authority of Member in Charge

8.1. In case the Consultant is a Joint Venture, the members hereby authorize the member specified in the SCC to act on their behalf in exercising all the Consultant's rights and obligations towards the Client under this Contract, including without limitation the receiving of instructions and payments from the Client.

9. Authorized

9.1. Any action required or permitted to be taken, and any document

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[Handwritten signature]

- Representatives** required or permitted to be executed under this Contract by the Client or the Consultant may be taken or executed by the officials specified in the **SCC**.
- 10. Fraud and Corruption**
- a. Commissions and Fees**
- 10.1 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 Attachment 1 to the GCC.
- 10.2 The Client requires the Consultant to disclose any commissions, gratuities or fees that may have been paid or are to be paid to agents or any other party with respect to the selection process or execution of the Contract. The information disclosed must include at least the name and address of the agent or other party, the amount and currency, and the purpose of the commission, gratuity or fee. Failure to disclose such commissions, gratuities or fees may result in termination of the Contract and/or sanctions by the Bank.

B. COMMENCEMENT, COMPLETION, MODIFICATION AND TERMINATION OF CONTRACT

- 11. Effectiveness of Contract**
- 11.1. This Contract shall come into force and effect on the date (the "Effective Date") of the Client's notice to the Consultant instructing the Consultant to begin carrying out the Services. This notice shall confirm that the effectiveness conditions, if any, listed in the **SCC** have been met.
- 12. Termination of Contract for Failure to Become Effective**
- 12.1. If this Contract has not become effective within such time period after the date of Contract signature as specified in the **SCC**, either Party may, by not less than twenty two (22) days written notice to the other Party, declare this Contract to be null and void, and in the event of such a declaration by either Party, neither Party shall have any claim against the other Party with respect hereto.
- 13. Commencement of Services**
- 13.1. The Consultant shall confirm availability of Key Experts and begin carrying out the Services not later than the number of days after the Effective Date specified in the **SCC**.
- 14. Expiration of Contract**
- 14.1. Unless terminated earlier pursuant to Clause GCC 19 hereof, this Contract shall expire at the end of such time period after the Effective Date as specified in the **SCC**.
- 15. Entire Agreement**
- 15.1. This Contract contains all covenants, stipulations and provisions agreed by the Parties. No agent or representative of either Party has authority to make, and the Parties shall not be bound by or be liable for, any statement, representation, promise or agreement not set forth herein.
- 16. Modifications or Variations**
- 16.1. Any modification or variation of the terms and conditions of this Contract, including any modification or variation of the scope of the Services, may only be made by written agreement between the Parties. However, each Party shall give due consideration to any proposals for modification or variation made by the other Party.
- 16.2. In cases of substantial modifications or variations, the prior written consent of the Bank is required.
- 17. Force Majeure**
- a. Definition**
- 17.1. For the purposes of this Contract, "Force Majeure" means an event which is beyond the reasonable control of a Party, is not foreseeable, is unavoidable, and makes a Party's performance of its obligations hereunder impossible or so impractical as reasonably to be considered impossible under the circumstances, and subject to those requirements, includes, but is not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm, flood or other adverse weather conditions, strikes, lockouts or other industrial action confiscation or any other action by Government agencies.

17.2. Force Majeure shall not include (i) any event which is caused by the negligence or intentional action of a Party or such Party's Experts, Sub-consultants or agents or employees, nor (ii) any event which a diligent Party could reasonably have been expected to both take into account at the time of the conclusion of this Contract, and avoid or overcome in the carrying out of its obligations hereunder.

17.3. Force Majeure shall not include insufficiency of funds or failure to make any payment required hereunder.

b. No Breach of Contract

17.4. The failure of a Party to fulfill any of its obligations hereunder shall not be considered to be a breach of, or default under, this Contract insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event has taken all reasonable precautions, due care and reasonable alternative measures, all with the objective of carrying out the terms and conditions of this Contract.

c. Measures to be Taken

17.5. A Party affected by an event of Force Majeure shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall take all reasonable measures to minimize the consequences of any event of Force Majeure.

17.6. A Party affected by an event of Force Majeure shall notify the other Party of such event as soon as possible, and in any case not later than fourteen (14) calendar days following the occurrence of such event, providing evidence of the nature and cause of such event, and shall similarly give written notice of the restoration of normal conditions as soon as possible.

17.7. Any period within which a Party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.

17.8. During the period of their inability to perform the Services as a result of an event of Force Majeure, the Consultant, upon instructions by the Client, shall either:

- (a) demobilize, in which case the Consultant shall be reimbursed for additional costs they reasonably and necessarily incurred, and, if required by the Client, in reactivating the Services; or
- (b) continue with the Services to the extent reasonably possible, in which case the Consultant shall continue to be paid under the terms of this Contract and be reimbursed for additional costs reasonably and necessarily incurred.

17.9. In the case of disagreement between the Parties as to the existence or extent of Force Majeure, the matter shall be settled according to Clauses GCC 44 & 45.

18. Suspension

18.1. The Client may, by written notice of suspension to the Consultant, suspend part or all payments to the Consultant hereunder if the Consultant fails to perform any of its obligations under this Contract, including the carrying out of the Services, provided that such notice of suspension (i) shall specify the nature of the failure, and (ii) shall request the Consultant to remedy such failure within a period not exceeding thirty (30) calendar days after receipt by the Consultant of such notice of suspension.

19. Termination

19.1. This Contract may be terminated by either Party as per provisions set up below:

a. By the Client

19.1.1. The Client may terminate this Contract in case of the occurrence of any of the events specified in paragraphs (a) through (f) of this Clause. In such an occurrence the Client shall give at least thirty (30) calendar days' written notice of termination to the Consultant in case of the events referred to in (a) through (d); at least sixty (60) calendar days' written notice in case of the event referred to in (e); and at least five (5) calendar days' written notice in case of the event referred to in (f):

- (a) If the Consultant fails to remedy a failure in the performance of its obligations hereunder, as specified in a notice of suspension pursuant to Clause GCC 18;
- (b) If the Consultant becomes (or, if the Consultant consists of more than one entity, if any of its members becomes) insolvent or bankrupt or enter into any agreements with their creditors for relief of debt or take advantage of any law for the benefit of debtors or go into liquidation or receivership whether compulsory or voluntary;
- (c) If the Consultant fails to comply with any final decision reached as a result of arbitration proceedings pursuant to Clause GCC 45.1;
- (d) If, as the result of Force Majeure, the Consultant is unable to perform a material portion of the Services for a period of not less than sixty (60) calendar days;
- (e) If the Client, in its sole discretion and for any reason whatsoever, decides to terminate this Contract;
- (f) If the Consultant fails to confirm availability of Key Experts as required in Clause GCC 13.

19.1.2. Furthermore, if the Client determines that the Consultant has engaged in Fraud and Corruption in competing for or in executing the Contract, then the Client may, after giving fourteen (14) calendar days written notice to the Consultant, terminate the Consultant's employment under the Contract.

b. By the Consultant

19.1.3. The Consultant may terminate this Contract, by not less than thirty (30) calendar days' written notice to the Client, in case of the occurrence of any of the events specified in paragraphs (a) through (d) of this Clause.

- (a) If the Client fails to pay any money due to the Consultant pursuant to this Contract and not subject to dispute pursuant to Clause GCC 45.1 within forty-five (45) calendar days after receiving written notice from the Consultant that such payment is overdue.
- (b) If, as the result of Force Majeure, the Consultant is unable to perform a material portion of the Services for a period of not less than sixty (60) calendar days.
- (c) If the Client fails to comply with any final decision reached as a result of arbitration pursuant to Clause GCC 45.1.
- (d) If the Client is in material breach of its obligations pursuant to this Contract and has not remedied the same within forty-five (45) days (or such longer period as the Consultant may have subsequently approved in writing) following the receipt by the Client of the Consultant's notice specifying such breach.

c. Cessation of

19.1.4. Upon termination of this Contract pursuant to Clauses GCC

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**Rights and
Obligations**

12 or GCC 19 hereof, or upon expiration of this Contract pursuant to Clause GCC 14, all rights and obligations of the Parties hereunder shall cease, except (i) such rights and obligations as may have accrued on the date of termination or expiration, (ii) the obligation of confidentiality set forth in Clause GCC 22, (iii) the Consultant's obligation to permit inspection, copying and auditing of their accounts and records set forth in Clause GCC 25 and to cooperate and assist in any inspection or investigation, and (iv) any right which a Party may have under the Applicable Law.

**d. Cessation of
Services**

19.1.5. Upon termination of this Contract by notice of either Party to the other pursuant to Clauses GCC 19a or GCC 19b, the Consultant shall, immediately upon dispatch or receipt of such notice, take all necessary steps to bring the Services to a close in a prompt and orderly manner and shall make every reasonable effort to keep expenditures for this purpose to a minimum. With respect to documents prepared by the Consultant and equipment and materials furnished by the Client, the Consultant shall proceed as provided, respectively, by Clauses GCC 27 or GCC 28.

**e. Payment upon
Termination**

19.1.6. Upon termination of this Contract, the Client shall make the following payments to the Consultant:

- (a) payment for Services satisfactorily performed prior to the effective date of termination; and
- (b) in the case of termination pursuant to paragraphs (d) and (e) of Clause GCC 19.1.1, reimbursement of any reasonable cost incidental to the prompt and orderly termination of this Contract, including the cost of the return travel of the Experts.

C. OBLIGATIONS OF THE CONSULTANT

20. General

**a. Standard of
Performance**

20.1 The Consultant shall perform the Services and carry out the Services with all due diligence, efficiency and economy, in accordance with generally accepted professional standards and practices, and shall observe sound management practices, and employ appropriate technology and safe and effective equipment, machinery, materials and methods. The Consultant shall always act, in respect of any matter relating to this Contract or to the Services, as a faithful adviser to the Client, and shall at all times support and safeguard the Client's legitimate interests in any dealings with the third parties.

20.2. The Consultant shall employ and provide such qualified and experienced Experts and Sub-consultants as are required to carry out the Services.

20.3. The Consultant may subcontract part of the Services to an extent and with such Key Experts and Sub-consultants as may be approved in advance by the Client. Notwithstanding such approval, the Consultant shall retain full responsibility for the Services.

**b. Law Applicable
to Services**

20.4. The Consultant shall perform the Services in accordance with the Contract and the Applicable Law and shall take all practicable steps to ensure that any of its Experts and Sub-consultants, comply with the Applicable Law.

20.5. Throughout the execution of the Contract, the Consultant shall comply with the import of goods and services prohibitions in the Client's country when

- (a) as a matter of law or official regulations, the Borrower's country

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prohibits commercial relations with that country; 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.

20.6. The Client shall notify the Consultant in writing of relevant local customs, and the Consultant shall, after such notification, respect such customs.

21. Conflict of Interest

21.1. The Consultant shall hold the Client's interests paramount, without any consideration for future work, and strictly avoid conflict with other assignments or their own corporate interests.

a. Consultant Not to Benefit from Commissions, Discounts, etc.

21.1.1 The payment of the Consultant pursuant to GCC F (Clauses GCC 38 through 42) shall constitute the Consultant's only payment in connection with this Contract and, subject to Clause GCC 21.1.3, the Consultant shall not accept for its own benefit any trade commission, discount or similar payment in connection with activities pursuant to this Contract or in the discharge of its obligations hereunder, and the Consultant shall use its best efforts to ensure that any Sub-consultants, as well as the Experts and agents of either of them, similarly shall not receive any such additional payment.

21.1.2 Furthermore, if the Consultant, as part of the Services, has the responsibility of advising the Client on the procurement of goods, works or services, the Consultant shall comply with the Bank's Applicable Regulations, and shall at all times exercise such responsibility in the best interest of the Client. Any discounts or commissions obtained by the Consultant in the exercise of such procurement responsibility shall be for the account of the Client.

b. Consultant and Affiliates Not to Engage in Certain Activities

21.1.3 The Consultant agrees that, during the term of this Contract and after its termination, the Consultant and any entity affiliated with the Consultant, as well as any Sub-consultants and any entity affiliated with such Sub-consultants, shall be disqualified from providing goods, works or non-consulting services resulting from or directly related to the Consultant's Services for the preparation or implementation of the project.

c. Prohibition of Conflicting Activities

21.1.4 The Consultant shall not engage, and shall cause its Experts as well as its Sub-consultants not to engage, either directly or indirectly, in any business or professional activities that would conflict with the activities assigned to them under this Contract.

d. Strict Duty to Disclose Conflicting Activities

21.1.5 The Consultant has an obligation and shall ensure that its Experts and Sub-consultants shall have an obligation to disclose any situation of actual or potential conflict that impacts their capacity to serve the best interest of their Client, or that may reasonably be perceived as having this effect. Failure to disclose said situations may lead to the disqualification of the Consultant or the termination of its Contract.

22. Confidentiality

22.1 Except with the prior written consent of the Client, the Consultant and the Experts shall not at any time communicate to any person or entity any confidential information acquired in the course of the Services, nor shall the Consultant and the Experts make public the recommendations formulated in the course of, or as a result of, the Services.

23. Liability of the

23.1 Subject to additional provisions, if any, set forth in the SCC, the
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Consultant	Consultant's liability under this Contract shall be provided by the Applicable Law.
24. Insurance to be taken out by the Consultant	<p>24.1 The Consultant (i) shall take out and maintain, and shall cause any Sub-consultants to take out and maintain, at its (or the Sub-consultants', as the case may be) own cost but on terms and conditions approved by the Client, insurance against the risks, and for the coverage specified in the SCC, and (ii) at the Client's request, shall provide evidence to the Client showing that such insurance has been taken out and maintained and that the current premiums therefore have been paid. The Consultant shall ensure that such insurance is in place prior to commencing the Services as stated in Clause GCC 13.</p>
25. Accounting, Inspection and Auditing	<p>25.1 The Consultant shall keep, and shall make all reasonable efforts to cause its Sub-consultants to keep, accurate and systematic accounts and records in respect of the Services and in such form and detail as will clearly identify relevant time changes and costs.</p> <p>25.2 Pursuant to paragraph 2.2 e. of Appendix to the General Conditions the Consultant shall permit and shall cause its subcontractors and subconsultants to permit, the Bank and/or persons appointed by the Bank to inspect the Site and/or the accounts and records relating to the performance of the Contract and the submission of the bid, and to have such accounts and records audited by auditors appointed by the Bank if requested by the Bank. The Consultant's and its Subcontractors' and subconsultants' attention is drawn to Sub-Clause 10.1 which provides, inter alia, that acts intended to materially impede the exercise of the Bank's inspection and audit rights constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the Bank's prevailing sanctions procedures).</p>
26. Reporting Obligations	<p>26.1 The Consultant shall submit to the Client the reports and documents specified in Appendix A, in the form, in the numbers and within the time periods set forth in the said Appendix.</p>
27. Proprietary Rights of the Client in Reports and Records	<p>27.1 Unless otherwise indicated in the SCC, all reports and relevant data and information such as maps, diagrams, plans, databases, other documents and software, supporting records or material compiled or prepared by the Consultant for the Client in the course of the Services shall be confidential and become and remain the absolute property of the Client. The Consultant shall, not later than upon termination or expiration of this Contract, deliver all such documents to the Client, together with a detailed inventory thereof. The Consultant may retain a copy of such documents, data and/or software but shall not use the same for purposes unrelated to this Contract without prior written approval of the Client.</p> <p>27.2 If license agreements are necessary or appropriate between the Consultant and third parties for purposes of development of the plans, drawings, specifications, designs, databases, other documents and software, the Consultant shall obtain the Client's prior written approval to such agreements, and the Client shall be entitled at its discretion to require recovering the expenses related to the development of the program(s) concerned. Other restrictions about the future use of these documents and software, if any, shall be specified in the SCC.</p>
28. Equipment, Vehicles and Materials	<p>28.1 Equipment, vehicles and materials made available to the Consultant by the Client, or purchased by the Consultant wholly or partly with funds provided by the Client, shall be the property of the Client and shall be marked accordingly. Upon termination or expiration of this Contract, the Consultant shall make available to the Client an inventory of such equipment, vehicles and materials and shall dispose of such equipment, vehicles and materials in accordance with the Client's instructions. While in possession of such equipment, vehicles and materials, the Consultant, unless otherwise instructed</p>

by the Client in writing, shall insure them at the expense of the Client in an amount equal to their full replacement value.

28.2 Any equipment or materials brought by the Consultant or its Experts into the Client's country for the use either for the project or personal use shall remain the property of the Consultant or the Experts concerned, as applicable.

D. CONSULTANT'S EXPERTS AND SUB-CONSULTANTS

29. Description of Key Experts

29.1 The title, agreed job description, minimum qualification and estimated period of engagement to carry out the Services of each of the Consultant's Key Experts are described in **Appendix B**.

30. Replacement of Key Experts

30.1 Except as the Client may otherwise agree in writing, no changes shall be made in the Key Experts.

30.2 Notwithstanding the above, the substitution of Key Experts during Contract execution may be considered only based on the Consultant's written request and due to circumstances outside the reasonable control of the Consultant, including but not limited to death or medical incapacity. In such case, the Consultant shall forthwith provide as a replacement, a person of equivalent or better qualifications and experience, and at the same rate of remuneration.

31. Removal of Experts or Sub-consultants

31.1 If the Client finds that any of the Experts or Sub-consultant has committed serious misconduct or has been charged with having committed a criminal action, or if the Client determines that a Consultant's Expert or Sub-consultant has engaged in Fraud and Corruption while performing the Services, the Consultant shall, at the Client's written request, provide a replacement.

31.2 In the event that any of Key Experts, Non-Key Experts or Sub-consultants is found by the Client to be incompetent or incapable in discharging assigned duties, the Client, specifying the grounds therefore, may request the Consultant to provide a replacement.

31.3 Any replacement of the removed Experts or Sub-consultants shall possess better qualifications and experience and shall be acceptable to the Client.

31.4 The Consultant shall bear all costs arising out of or incidental to any removal and/or replacement of such Experts.

E. OBLIGATIONS OF THE CLIENT

32. Assistance and Exemptions

32.1 Unless otherwise specified in the **SCC**, the Client shall use its best efforts to:

- (a) Assist the Consultant with obtaining work permits and such other documents as shall be necessary to enable the Consultant to perform the Services.
- (b) Assist the Consultant with promptly obtaining, for the Experts and, if appropriate, their eligible dependents, all necessary entry and exit visas, residence permits, exchange permits and any other documents required for their stay in the Client's country while carrying out the Services under the Contract.
- (c) Facilitate prompt clearance through customs of any property required for the Services and of the personal effects of the Experts and their eligible dependents.
- (c) Issue to officials, agents and representatives of the Government all such instructions and information as may be necessary or appropriate for the

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prompt and effective implementation of the Services.

- (d) Assist the Consultant and the Experts and any Sub-consultants employed by the Consultant for the Services with obtaining exemption from any requirement to register or obtain any permit to practice their profession or to establish themselves either individually or as a corporate entity in the Client's country according to the applicable law in the Client's country.
- (e) Assist the Consultant, any Sub-consultants and the Experts of either of them with obtaining the privilege, pursuant to the applicable law in the Client's country, of bringing into the Client's country reasonable amounts of foreign currency for the purposes of the Services or for the personal use of the Experts and of withdrawing any such amounts as may be earned therein by the Experts in the execution of the Services.
- (f) Provide to the Consultant any such other assistance as may be specified in the **SCC**.

33. Access to Project Site

33.1 The Client warrants that the Consultant shall have, free of charge, unimpeded access to the project site in respect of which access is required for the performance of the Services. The Client will be responsible for any damage to the project site or any property thereon resulting from such access and will indemnify the Consultant and each of the experts in respect of liability for any such damage, unless such damage is caused by the willful default or negligence of the Consultant or any Sub-consultants or the Experts of either of them.

**34. Change in the
Applicable Law
Related to Taxes and
Duties**

34.1 If, after the date of this Contract, there is any change in the applicable law in the Client's country with respect to taxes and duties which increases or decreases the cost incurred by the Consultant in performing the Services, then the remuneration and reimbursable expenses otherwise payable to the Consultant under this Contract shall be increased or decreased accordingly by agreement between the Parties hereto, and corresponding adjustments shall be made to the Contract price amount specified in Clause GCC 38.1

**35. Services, Facilities
and Property of the
Client**

35.1 The Client shall make available to the Consultant and the Experts, for the purposes of the Services and free of any charge, the services, facilities and property described in the Terms of Reference (**Appendix A**) at the times and in the manner specified in said **Appendix A**.

**36. Counterpart
Personnel**

36.1 The Client shall make available to the Consultant free of charge such professional and support counterpart personnel, to be nominated by the Client with the Consultant's advice, if specified in **Appendix A**.

36.2 Professional and support counterpart personnel, excluding Client's liaison personnel, shall work under the exclusive direction of the Consultant. If any member of the counterpart personnel fails to perform adequately any work assigned to such member by the Consultant that is consistent with the position occupied by such member, the Consultant may request the replacement of such member, and the Client shall not unreasonably refuse to act upon such request.

37. Payment Obligation

37.1 In consideration of the Services performed by the Consultant under this Contract, the Client shall make such payments to the Consultant for the deliverables specified in **Appendix A** and in such manner as is provided by GCC F below.

F. PAYMENTS TO THE CONSULTANT

38. Contract Price

38.1 The Contract price is fixed and is set forth in the **SCC**. The Contract price breakdown is provided in **Appendix C**.

38.2 Any change to the Contract price specified in Clause GCC 38.1 can be

made only if the Parties have agreed to the revised scope of Services pursuant to Clause GCC 16 and have amended in writing the Terms of Reference in **Appendix A**.

39. Taxes and Duties

39.1 The Consultant, Sub-consultants and Experts are responsible for meeting any and all tax liabilities arising out of the Contract unless it is stated otherwise in the **SCC**.

39.2 As an exception to the above and as stated in the **SCC**, all local identifiable indirect taxes (itemized and finalized at Contract negotiations) are reimbursed to the Consultant or are paid by the Client on behalf of the Consultant.

40. Currency of Payment

40.1 Any payment under this Contract shall be made in the currency (ies) of the Contract.

41. Mode of Billing and Payment

41.1 The total payments under this Contract shall not exceed the Contract price set forth in Clause GCC 38.1.

41.2 The payments under this Contract shall be made in lump-sum installments against deliverables specified in **Appendix A**. The payments will be made according to the payment schedule stated in the **SCC**.

41.2.1 Advance payment: Unless otherwise indicated in the **SCC**, an advance payment shall be made against an advance payment bank guarantee acceptable to the Client in an amount (or amounts) and in a currency (or currencies) specified in the **SCC**. Such guarantee (i) is to remain effective until the advance payment has been fully set off, and (ii) is to be in the form set forth in **Appendix D**, or in such other form as the Client shall have approved in writing. The advance payments will be set off by the Client in equal portions against the lump-sum installments specified in the **SCC** until said advance payments have been fully set off.

41.2.2 The Lump-Sum Installment Payments. The Client shall pay the Consultant within sixty (60) days after the receipt by the Client of the deliverable(s) and the cover invoice for the related lump-sum installment payment. The payment can be withheld if the Client does not approve the submitted deliverable(s) as satisfactory in which case the Client shall provide comments to the Consultant within the same sixty (60) days period. The Consultant shall thereupon promptly make any necessary corrections, and thereafter the foregoing process shall be repeated.

41.2.3 The Final Payment. The final payment under this Clause shall be made only after the final report have been submitted by the Consultant and approved as satisfactory by the Client. The Services shall then be deemed completed and finally accepted by the Client. The last lump-sum installment shall be deemed approved for payment by the Client within ninety (90) calendar days after receipt of the final report by the Client unless the Client, within such ninety (90) calendar day period, gives written notice to the Consultant specifying in detail deficiencies in the Services, the final report. The Consultant shall thereupon promptly make any necessary corrections, and thereafter the foregoing process shall be repeated. 41.2.4 All payments under this Contract shall be made to the accounts of the Consultant specified in the **SCC**.

41.2.4 With the exception of the final payment under 41.2.3 above, payments do not constitute acceptance of the whole Services nor relieve the Consultant of any obligations hereunder.

42. Interest on Delayed Payments

42.1 If the Client had delayed payments beyond fifteen (15) days after the due date stated in Clause GCC 41.2.2, interest shall be paid to the Consultant on any amount due by, not paid on, such due date for each day of delay at the annual rate stated in the **SCC**.

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G. FAIRNESS AND GOOD FAITH

43. Good Faith

43.1 The Parties undertake to act in good faith with respect to each other's rights under this Contract and to adopt all reasonable measures to ensure the realization of the objectives of this Contract.

H. SETTLEMENT OF DISPUTES

44. Amicable Settlement

44.1 The Parties shall seek to resolve any dispute amicably by mutual consultation.

44.2 If either Party objects to any action or inaction of the other Party, the objecting Party may file a written Notice of Dispute to the other Party providing in detail the basis of the dispute. The Party receiving the Notice of Dispute will consider it and respond in writing within fourteen (14) days after receipt. If that Party fails to respond within fourteen (14) days, or the dispute cannot be amicably settled within fourteen (14) days following the response of that Party, Clause GCC 45.1 shall apply.

45. Dispute Resolution

45.1 Any dispute between the Parties arising under or related to this Contract that cannot be settled amicably may be referred to by either Party to the adjudication/arbitration in accordance with the provisions specified in the SCC.

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II. General Conditions
Attachment 1
Fraud and Corruption
(Text in this Appendix shall not 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

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 sub-contractor, 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.

- 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.

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.

III. Special Conditions of Contract

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
1.1(a)	The Contract shall be construed in accordance with the law of India
1.1 (b)	The date of the "Applicable Regulations" is: July, 2016
4.1	The language is: English
6.1 and 6.2	<p>The addresses are:</p> <p>Client : Project Coordination Unit, ARIAS Society, Agriculture Complex, Khanapara, G.S. Road, Guwahati-781022 (Assam, India); Tel: 0361-2332125;</p> <p>Attention : State Project Director, ARIAS Society Facsimile : +91 361-2332564 E-mail : <u>spd@arias.in</u></p> <p>Consultant : The International Rice Research Institute, UPLB Los Banos, Laguna, 4030, Philippines; Tel: +63-0-49-536-2701; email: <u>a.poncin@irri.org</u>.</p> <p>Attention: Head, IRRI Portfolio Management International Rice Research Institute (IRRI), Philippines. Tel : +63-0-49-536-2701 E-mail: <u>a.poncin@irri.org</u></p>
8.1	Not Applicable
9.1	<p>The Authorized Representatives are:</p> <p>For the Client:</p> <ul style="list-style-type: none"> i) The State Project Director, ARIAS Society; Ph: +91 361 2332125, Email: <u>spd@arias.in</u> . ii) The Director of Agriculture, Government of Assam Ph: +91 361 2333877, Email: <u>agri-dept@nic.in</u> iii) The Director of Research, Assam Agricultural University <p>For the Consultant:</p> <ul style="list-style-type: none"> i) Dr. A.J. Poncin, Head, IRRI Portfolio Management, International Rice Research Institute (IRRI), Philippines Ph: +63 (0) 49-536-2701, Email: <u>a.poncin@irri.org</u> ii) Dr. U. S. Singh, Director, IRRI South Asia Regional Center (ISARC) & Principal Scientist (Plant Breeding) International Rice Research Institute (IRRI), India Ph: +91 11 66763000, Email: <u>u.singh@irri.org</u> iii) Dr. Nafees Meah South Asia Representative International Rice Research Institute (IRRI), India Ph: +91 11 66763000, Email: <u>n.meah@irri.org</u>

	<p>iv) Dr. Sudhanshu Singh Senior Scientist & Rainfed Lowland Agronomist - South Asia International Rice Research Institute (IRRI), India Ph: +91 11 66763000, Email: sud.singh@irri.org</p>
11.1	The effectiveness conditions are the following: Date of undertaking from the Consultant that the proposed experts are available to take up the assignment.
12.1	Termination of Contract for Failure to Become Effective: The time period shall be 120 days
13.1	<p>Commencement of Services: The number of days shall be 10 days from the date of effectiveness. Confirmation of Key Experts' availability to start the Assignment shall be submitted to the Client in writing as a written statement signed by each Key Expert.</p>
14.1	Expiration of Contract: The time period shall be 54 months after the Effective Date
21 b.	The Client reserves the right to determine on a case-by-case basis whether the Consultant should be disqualified from providing goods, works or non-consulting services due to a conflict of a nature described in Clause GCC 21.1.3 : Yes
23.1	No additional provisions.
24.1	<p>The insurance coverage against the risks shall be as follows:</p> <ol style="list-style-type: none"> Professional liability insurance, with a minimum coverage of US\$4,577,412 (United States Dollars four million five hundred seventy seven thousand four hundred & twelve only); Third Party motor vehicle liability insurance in respect of motor vehicles operated in the Client's country by the Consultant or its Experts or Sub-consultants, with a minimum coverage <i>in accordance with the applicable law in the Client's country</i>; Third Party liability insurance, with a minimum coverage <i>in accordance with the applicable law in the Client's country</i>; employer's liability and workers' compensation insurance in respect of the experts and Sub-consultants in accordance with the relevant provisions of the applicable law in the Client's country, as well as, with respect to such Experts, any such life, health, accident, travel or other insurance as may be appropriate; and insurance against loss of or damage to (i) equipment purchased in whole or in part with funds provided under this Contract, (ii) the Consultant's property used in the performance of the Services, and (iii) any documents prepared by the Consultant in the performance of the Services.
27.1	No exceptions to proprietary rights provision
38.1	<p>The Contract price is: US\$4,577,412 (United States Dollars four million five hundred seventy seven thousand four hundred & twelve only); excluding all taxes, (exclusive of local indirect taxes i.e. GST) (GST: Goods & Services Tax) Any indirect local taxes i.e. GST chargeable in respect of this Contract for the Services provided by the Consultant shall be paid by the Client for the Consultant, as per applicable laws of India. The amount of such taxes shall be Indian Rupees 5,35,55,720 at the current rate of GST on services being 18%, with exchange rate of 1 US\$= Rupees 65/-.</p>
39.1 and 39.2	<p>The Client warrants that the Client shall reimburse the Consultant, the Sub-consultants and the Experts any indirect taxes, duties, fees, levies and other impositions imposed, under the applicable law in the Client's country, on the Consultant, the Sub-consultants and the Experts in respect of:</p> <p>(a) any payments whatsoever made to the Consultant, Sub-consultants and the Experts (other than</p>

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	<p>nationals or permanent residents of the Client's country)), in connection with the carrying out of the Services;</p> <p>(b) any equipment, materials and supplies brought into the Client's country by the Consultant or Sub-consultants for the purpose of carrying out the Services and which, after having been brought into such territories, will be subsequently withdrawn by them;</p> <p>(c) any equipment imported for the purpose of carrying out the Services and paid for out of funds provided by the Client and which is treated as property of the Client;</p> <p>(d) any property brought into the Client's country by the Consultant, any Sub-consultants or the Experts (other than nationals or permanent residents of the Client's country), or the eligible dependents of such experts for their personal use and which will subsequently be withdrawn by them upon their respective departure from the Client's country, provided that:</p> <p>(i) the Consultant, Sub-consultants and experts shall follow the usual customs procedures of the Client's country in importing property into the Client's country; and</p> <p>(ii) if the Consultant, Sub-consultants or Experts do not withdraw but dispose of any property in the Client's country upon which customs duties and taxes have been exempted, the Consultant, Sub-consultants or Experts, as the case may be, (a) shall bear such customs duties and taxes in conformity with the regulations of the Client's country, or (b) shall reimburse them to the Client if they were paid by the Client at the time the property in question was brought into the Client's country.</p>																																																																																																																																
41.2	<p>The payment schedule (Deliverable wise Summary of Payment Schedule):</p> <table><tr><th rowspan="3">Deliverables</th><th colspan="8">Payment Schedule (% of payment out of total contract ceiling)</th><th>Exit Strategy</th><th rowspan="3">%payment out of Total Contract price</th></tr><tr><th colspan="2">Yr-1</th><th colspan="2">Yr-2</th><th colspan="2">Yr-3</th><th colspan="2">Yr-4</th><th>Yr-5</th></tr><tr><th>1 Sem</th><th>2 Sem</th><th>1 Sem</th><th>2 Sem</th><th>1 Sem</th><th>2 Sem</th><th>1 Sem</th><th>2 Sem</th><th>1 Sem</th></tr><tr><td>Deliverable A: Inception Report</td><td>10%</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>10.00%</td></tr><tr><td>Deliverable 1: Strengthening Seed Systems & Adoption of High Yielding Stress-Tolerant Rice Varieties</td><td>2.82%</td><td>1.60%</td><td>3.05%</td><td>1.80%</td><td>3.09%</td><td>1.86%</td><td>3.20%</td><td>1.75%</td><td>2.48%</td><td>21.65%</td></tr><tr><td>Deliverable 2 Raising Productivity, Profitability, and Resource Use Efficiencies of Rice Based Cropping Systems in Assam through Improved Crop and Natural Resource Management</td><td>3.48%</td><td>1.91%</td><td>3.61%</td><td>2.31%</td><td>3.32%</td><td>2.87%</td><td>3.39%</td><td>2.82%</td><td>3.10%</td><td>26.81%</td></tr><tr><td>Deliverable-3 Strengthening Post-Harvest Management by Introducing Improved Practices Including Post-Harvest Mechanization and Supporting Service Economy to Reduce Losses, Increase Efficiency and Profitability, and Improve Rice Value Chain</td><td>2.28%</td><td>1.92%</td><td>2.21%</td><td>2.36%</td><td>2.49%</td><td>2.18%</td><td>2.27%</td><td>2.41%</td><td>2.34%</td><td>20.46%</td></tr><tr><td>Deliverable-4 Developing Extrapolation Domain of Cropping System for Efficient Targeting of Technologies in low-productive rice-fallows and Stress Prone Area</td><td>2.19%</td><td>2.04%</td><td>2.61%</td><td>2.18%</td><td>2.85%</td><td>2.05%</td><td>3.21%</td><td>1.60%</td><td>2.36%</td><td>21.08%</td></tr><tr><td>Total % of half yearly payments</td><td>20.76%</td><td>7.47%</td><td>11.48%</td><td>8.65%</td><td>11.76%</td><td>8.96%</td><td>12.07%</td><td>8.58%</td><td>10.27%</td><td>100.00%</td></tr><tr><td>Yearly % payment</td><td colspan="2">28.23%</td><td colspan="2">20.12%</td><td colspan="2">20.72%</td><td colspan="2">20.65%</td><td>10.27%</td><td>100.00%</td></tr><tr><td>6 monthly payment (USD)</td><td>950459</td><td>341969</td><td>525425</td><td>395750</td><td>538262</td><td>410156</td><td>552420</td><td>392807</td><td>470166</td><td>4577412</td></tr><tr><td>Yearly payment (USD)</td><td colspan="2">12,92,428</td><td colspan="2">9,21,175</td><td colspan="2">9,48,419</td><td colspan="2">9,45,226</td><td>470166</td><td>4577412</td></tr></table> <p>Note:</p> <p>a) Payment of installments shall be linked to the <u>detailed deliverables</u> specified in the <u>Terms of Reference at Appendix A</u>.</p> <p>b) Total sum of all installments shall not exceed the Contract price set up in SCC38.1.</p>	Deliverables	Payment Schedule (% of payment out of total contract ceiling)								Exit Strategy	%payment out of Total Contract price	Yr-1		Yr-2		Yr-3		Yr-4		Yr-5	1 Sem	2 Sem	1 Sem	2 Sem	1 Sem	2 Sem	1 Sem	2 Sem	1 Sem	Deliverable A: Inception Report	10%									10.00%	Deliverable 1: Strengthening Seed Systems & Adoption of High Yielding Stress-Tolerant Rice Varieties	2.82%	1.60%	3.05%	1.80%	3.09%	1.86%	3.20%	1.75%	2.48%	21.65%	Deliverable 2 Raising Productivity, Profitability, and Resource Use Efficiencies of Rice Based Cropping Systems in Assam through Improved Crop and Natural Resource Management	3.48%	1.91%	3.61%	2.31%	3.32%	2.87%	3.39%	2.82%	3.10%	26.81%	Deliverable-3 Strengthening Post-Harvest Management by Introducing Improved Practices Including Post-Harvest Mechanization and Supporting Service Economy to Reduce Losses, Increase Efficiency and Profitability, and Improve Rice Value Chain	2.28%	1.92%	2.21%	2.36%	2.49%	2.18%	2.27%	2.41%	2.34%	20.46%	Deliverable-4 Developing Extrapolation Domain of Cropping System for Efficient Targeting of Technologies in low-productive rice-fallows and Stress Prone Area	2.19%	2.04%	2.61%	2.18%	2.85%	2.05%	3.21%	1.60%	2.36%	21.08%	Total % of half yearly payments	20.76%	7.47%	11.48%	8.65%	11.76%	8.96%	12.07%	8.58%	10.27%	100.00%	Yearly % payment	28.23%		20.12%		20.72%		20.65%		10.27%	100.00%	6 monthly payment (USD)	950459	341969	525425	395750	538262	410156	552420	392807	470166	4577412	Yearly payment (USD)	12,92,428		9,21,175		9,48,419		9,45,226		470166	4577412
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Deliverable 2 Raising Productivity, Profitability, and Resource Use Efficiencies of Rice Based Cropping Systems in Assam through Improved Crop and Natural Resource Management	3.48%	1.91%	3.61%	2.31%	3.32%	2.87%	3.39%	2.82%	3.10%	26.81%																																																																																																																							
Deliverable-3 Strengthening Post-Harvest Management by Introducing Improved Practices Including Post-Harvest Mechanization and Supporting Service Economy to Reduce Losses, Increase Efficiency and Profitability, and Improve Rice Value Chain	2.28%	1.92%	2.21%	2.36%	2.49%	2.18%	2.27%	2.41%	2.34%	20.46%																																																																																																																							
Deliverable-4 Developing Extrapolation Domain of Cropping System for Efficient Targeting of Technologies in low-productive rice-fallows and Stress Prone Area	2.19%	2.04%	2.61%	2.18%	2.85%	2.05%	3.21%	1.60%	2.36%	21.08%																																																																																																																							
Total % of half yearly payments	20.76%	7.47%	11.48%	8.65%	11.76%	8.96%	12.07%	8.58%	10.27%	100.00%																																																																																																																							
Yearly % payment	28.23%		20.12%		20.72%		20.65%		10.27%	100.00%																																																																																																																							
6 monthly payment (USD)	950459	341969	525425	395750	538262	410156	552420	392807	470166	4577412																																																																																																																							
Yearly payment (USD)	12,92,428		9,21,175		9,48,419		9,45,226		470166	4577412																																																																																																																							
41.2.1	<p>There shall be no Advance payment</p>																																																																																																																																

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41.2.4	<p>The accounts are: <u>for foreign currency:</u> IRRI payment details are as follows:</p> <p>Account Title: International Rice Research Institute Bank Account Number: 6212-56654027 Bank: Bank of America Bank Address: N.A. OUE Bayfront, #14-01 50 Collyer Quay Singapore 049321 Swift Code: BOFASG2X</p>
42.1	<p>The interest rate is: 8% per Annum</p>
45.1	<p>Disputes shall be settled by arbitration in accordance with the following provisions:</p> <ol style="list-style-type: none"> 1. <u>Selection of Arbitrators.</u> Each dispute submitted by a Party to arbitration shall be heard by a sole arbitrator or an arbitration panel composed of three (3) arbitrators, in accordance with the following provisions: <ol style="list-style-type: none"> (a) Where the Parties agree that the dispute concerns a technical matter, they may agree to appoint a sole arbitrator or, failing agreement on the identity of such sole arbitrator within thirty (30) days after receipt by the other Party of the proposal of a name for such an appointment by the Party who initiated the proceedings. either Party may apply to the Federation Internationale des Ingenieurs-Conseil (FIDIC) of Lausanne, Switzerland for a list of not fewer than five (5) nominees and, on receipt of such list, the Parties shall alternately strike names therefrom, and the last remaining nominee on the list shall be the sole arbitrator for the matter in dispute. If the last remaining nominee has not been determined in this manner within sixty (60) days of the date of the list, the Federation Internationale des Ingenieurs-Conseil (FIDIC) of Lausanne, Switzerland shall appoint, upon the request of either Party and from such list or otherwise, a sole arbitrator for the matter in dispute. (b) Where the Parties do not agree that the dispute concerns a technical matter, the Client and the Consultant shall each appoint one (1) arbitrator, and these two arbitrators shall jointly appoint a third arbitrator, who shall chair the arbitration panel. If the arbitrators named by the Parties do not succeed in appointing a third arbitrator within thirty (30) days after the latter of the two (2) arbitrators named by the Parties has been appointed, the third arbitrator shall, at the request of either Party, be appointed by the Secretary General of the Permanent Court of Arbitration, The Hague. (c) If, in a dispute subject to paragraph (b) above, one Party fails to appoint its arbitrator within thirty (30) days after the other Party has appointed its arbitrator, the Party which has named an arbitrator may apply to the Secretary General of the Permanent Court of Arbitration, The Hague to appoint a sole arbitrator for the matter in dispute, and the arbitrator appointed pursuant to such application shall be the sole arbitrator for that dispute
	<ol style="list-style-type: none"> 2. <u>Rules of Procedure.</u> Except as otherwise stated herein, arbitration proceedings shall be conducted in accordance with the rules of procedure for arbitration of the United Nations Commission on International Trade Law (UNCITRAL) as in force on the date of this Contract. 3. <u>Substitute Arbitrators.</u> If for any reason an arbitrator is unable to perform his/her function, a substitute shall be appointed in the same manner as the original arbitrator. 4. <u>Nationality and Qualifications of Arbitrators.</u> The sole arbitrator or the third arbitrator appointed pursuant to paragraphs 1(a) through 1(b) above shall be an internationally recognized legal or technical expert with extensive experience in relation to the matter in dispute and shall not be a national of the Consultant's home country or of the Government's country. For the purposes of this Clause, "home country" means any of:

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	<ul style="list-style-type: none"> (a) the country of incorporation of the Consultant ; or (b) the country in which the Consultant's principal place of business is located; or (c) the country of nationality of a majority of the Consultant's shareholders; or (d) the country of nationality of the Sub-consultants concerned, where the dispute involves a subcontract.
5.	<p><u>Miscellaneous.</u> In any arbitration proceeding hereunder:</p> <ul style="list-style-type: none"> (a) proceedings shall, unless otherwise agreed by the Parties, be held in Bhutan; (b) the English language shall be the official language for all purposes; and (c) the decision of the sole arbitrator or of a majority of the arbitrators (or of the third arbitrator if there is no such majority) shall be final and binding and shall be enforceable in any court of competent jurisdiction, and the Parties hereby waive any objections to or claims of immunity in respect of such enforcement.

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IV. Appendices

APPENDIX A – TERMS OF REFERENCE

TERMS OF REFERENCE OF THE ASSIGNMENT FOR PROVISION OF TECHNICAL ASSISTANCE TO APART IN INCREASING PRODUCTIVITY AND PROFITABILITY OF SMALL AND MARGINAL FARMERS IN RICE-BASED CROPPING SYSTEMS OF ASSAM⁵

A. BACKGROUND

- 1) 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 in the of selected agriculture value chains, focusing on smallholder farmers and agro-entrepreneurs in targeted districts of Assam**”. Project beneficiaries will include farmers, Farmer Producer Organizations (FPOs), and entrepreneurs, especially in the MSME segment in the targeted districts.
- 2) The project will achieve the PDO by: (i) promoting investments in agri-enterprises, reducing the business and transaction costs, facilitating access to finance for agribusiness entrepreneurs, and where appropriate, push for process, regulatory and/or policy change; (ii) supporting the development of a modern agri-supply chain; improved information communication technologies (ICT) based farm information and intelligence services, and alternative marketing channels; and (iii) improving producers’ access to knowledge, technologies and infrastructure so that they are able to respond to market opportunities and climate variability.
- 3) There are 4 (four) components to the APART. **The first component (Component - A) is ‘Support to Agri- enterprise Development’**, with sub-components being (i) enhancing the State’s capacity to attract private investments, (ii) setting up of an Enterprise Development and Promotion Facility (EDPF), (iii) agribusiness investment fund support, and (iv) establishing stewardship councils. **The second component (Component - B) is ‘Facilitating agro-cluster development’** with the sub-components being (i) support establishment of cluster level industry associations, and (ii) supply chain support. **The third component (Component - C) is ‘Fostering Market-led Production and Resilience Enhancement’** with the 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 (Component - D) is ‘Project Management, Monitoring and Learning’**.
- 4) Under Component “C”, APART would support, value addition in the production and post-harvest segments of selected agriculture 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 agriculture production systems in order to better manage increasing production and commercial risks associated with climate change, 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. Project would enable all the value chain participants to develop competitive and innovative products that meet market demands rapidly and successfully.
- 5) A key project thrust will be on enhancing agglomeration of producers to improve economies of scale in production, processing and marketing. APART will leverage the natural resource advantages of the State as well as improve the investment climate. In particular, focus will be on climate resilient market-led production, agribusiness, agro-logistics infrastructure, and agri MSME finance & insurance.

⁵ This TOR also includes abstract of IRRI’s proposal, including the detailed costing, prepared by IRRI

- 6) In Assam, Rice is an important crop and a staple food for the millions of people in the region. Low productivity of rice-based systems of this region is mainly because of prevalent abiotic and biotic stresses due to rainfed nature of farming. Moreover, poor access to appropriate cultivars, poor access to knowledge and information, variable monsoon, and poor agronomy including late sowing/planting of inappropriately aged seedlings, limited availability of irrigation water, poor weed and nutrient management, and low input use add to complexities the region faces. APART therefore will support rice value chains through essential technology transfer in production and improved post-harvest and market operations, and also explore and pilot possible financing modalities to support entrepreneurship and agri-business.
- 7) More than 50% of rice growing areas are prone to various abiotic stresses including flooding/submergence and drought. Almost 0.8 and 0.2 million ha rice area (Total area is approx. 2.5 million) ha in the state is frequently affected by flood and drought, respectively. Rice production in these regions is not only low but also fragile. Farmers in stress-prone areas use little inputs for fear of losing not only crop but also inputs in case there are flood and drought. It further adds to low productivity. Also, these farmers are also affected by rising scarcity of labor, climate change, and rising production costs. An enormous potential exists to bridge the yield gap, de-risk farming in these risky and fragile environments, and to improve the income and overall life of small and marginalized farming communities in these areas with appropriate technological solutions.
- 8) IRRI is a global leader in rice science and develops new rice varieties and innovative and sustainable crop management practices to boost the productivity, profitability, and food and nutritional security of rice-based cropping systems. IRRI has developed high yielding, good grain quality stress-tolerant rice varieties (STRVs) including tolerance to submergence, drought, and salinity. IRRI has released some of these tolerant varieties in India in collaboration with Indian research institutions including Assam Agriculture University. These stress tolerant varieties have shown excellent performance in farmers' fields with yield advantage in the range of 1- 3 t/ha depending on the severity of stress. In recent years a few Zinc (Zn) and Protein rich varieties have also been released in India. Assam has a large number of high grain quality indigenous land races of rice. Some of these are reported to have unique qualities like cooking at low temperature, medicinal properties etc. These local land races of Assam will be also characterized for their nutritional value (Zn, Fe, protein, GI, flavonoids, fiber content etc.).
- 9) Some of these healthy rice varieties will be also promoted along with STRVs to address the issue of nutritional security. Similarly, IRRI has identified mechanization and sustainable solutions for weed, water, and nutrient management, and to minimize post-harvest losses. Also, IRRI trains different stakeholders involved in rice sector to build knowledge, skills, and scientific capacities. IRRI has its strength in developing actionable outreach material on better-bet rice agronomy with localized context to increase access to information on improved practices, which is lacking in these rainfed areas.
- 10) To facilitate further development of the rice sector in Assam, the Project has considered to collaborate with the International Rice Research Institute (IRRI) for technical support during implementation of APART, as IRRI is a known leader in rice research and development including stress (flood and drought) tolerant varieties and has already been working in Assam having a deep understanding of rice landscape of Assam.

B. OBJECTIVES OF THE ASSIGNMENT

- 11) The IRRI would extend technical advisory support to the Directorate of Agriculture (DoA), Agricultural Technology Management Agencies (ATMAs) and Assam Agricultural University (AAU), during the implementation phase of APART in strengthening the seed system, market-led climate smart intensification of production systems, rice based FPOs and implementation of Value Chain Development Plans (VCDPs). The specific objectives of the assignment include:
 - a) Strengthening the seed systems and adoption of high yielding stress-tolerant rice varieties
 - b) Raising productivity, profitability, and resource use efficiencies of rice based cropping systems in Assam through improved crop and natural resource management

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- c) Strengthening post-harvest management by introducing improved practices including post-harvest mechanization and supporting service economy to reduce losses, increase efficiency and profitability, and improve rice value chain
- d) Developing extrapolation domains of cropping systems for efficient targeting of technologies in stress-prone areas
- e) Developing knowledge materials, fostering strategic partnerships, and capacity development of various stakeholders (public, private and development partners) and extension functionaries in Assam. The activities under this objective are spread over other four objectives hence, no separate targets under this objective are provided.

C. SCOPE OF THE ASSIGNMENT & TASKS TO BE CARRIED OUT BY THE CONSULTANT

- 12) The scope of the assignment & tasks to be carried out by the consultant would include the following:
- a) ***Strengthening Seed Systems & Adoption of High Yielding Stress-Tolerant Rice Varieties***
 - i) Minikit based demonstrations
 - ii) On farm adaptive demonstrations
 - iii) Cluster demonstrations of STRVs
 - iv) Demonstration plots through dealer network
 - v) Head to head demonstrations
 - vi) Client oriented demonstrations/Crop cafeteria
 - vii) Training and capacity building
 - viii) Linkages for seed production
 - ix) Communication and report writing
 - x) Impact assessment
 - b) ***Raising Productivity, Profitability, and Resource Use Efficiencies of Rice Based Cropping Systems in Assam through Improved Crop and Natural Resource Management***
 - i) Out scaling of integrated crop management practices and scale appropriate mechanization through demonstrations, learning centres and capacity building to support knowledge dissemination
 - ii) Dissemination of effective IPM technologies to improve rice productivity
 - iii) Developing a rice knowledge bank for the state of Assam
 - c) ***Strengthening Post-Harvest Management by Introducing Improved Practices Including Post-Harvest Mechanization and Supporting Service Economy to Reduce Losses, Increase Efficiency and Profitability, and Improve Rice Value Chain***
 - i) Demonstration and dissemination of improved post harvest technologies for large scale adoption at farm level
 - ii) Rice value chain for support and development of entrepreneurs at commercial level
 - iii) Capacity building of the farmers, SPs, dealers and other extension functionaries for scale adoption of post-harvest management practices
 - d) ***Developing Extrapolation Domain of Cropping System for Efficient Targeting of Technologies in low-productive rice-fallows and Stress Prone Areas for efficient targeting of technologies***

D. AGREED DELIVERABLES, TIMELINE REPORTS & PAYMENT SCHEDULE

- 13) The deliverables from IRRI shall be in terms of technical advisory support to the implementing partners ie. Directorate of Agriculture (DoA), Government of Assam/District ATMA Societies and Assam Agricultural University (AAU) in the Rice Value Chain of APART and integration with cross cutting areas like gender, nutrition, climate resilience, crop diversification and sustainability for

successful project implementation. The Outputs/deliverables in the rice value chains **from IRRI** in terms of technical advisory support are as given below.

14) **Index of Deliverables/Activities**

INDEX OF DELIVERABLES/ACTIVITIES
Deliverable A: Inception Report
Deliverable 1: Strengthening Seed Systems & Adoption of High Yielding Stress-Tolerant Rice Varieties
Activity 1.1: Minikit based demonstrations
Activity 1.2: On farm adaptive demonstrations
Activity 1.3: Cluster demonstrations of STRVs
Activity 1.4: Demonstration plot through dealer network
Activity 1.5: Head to head demonstrations
Activity 1.6: Client oriented demonstrations/ Crop Cafeteria
Activity 1.7: Training and capacity building
Activity 1.8: Linkages for seed production
Activity 1.9: Communication and report writing)
Activity 1.10: Impact Assessment
Deliverable 2: Raising Productivity, Profitability, and Resource Use Efficiencies of Rice Based Cropping Systems in Assam through Improved Crop and Natural Resource Management
Activity 2.1: Out scaling of integrated crop management practices and scale appropriate mechanization through demonstrations, learning Centre's and capacity building to support knowledge dissemination
<i>A: Out scaling of integrated crop management practices through demonstrations and learning centres</i>
Task-1: Identification and handholding of progressive farmers and local entrepreneur for creation of service economy
Task-2 Integrated Crop Management demos (ICMDs) for transplanted rice
Task-3 Learning Centres including field day
<i>B: Machinery distribution and handholding to help support organization of demonstration, creation of service economy, entrepreneurship development, and network creation, and scale up mechanization</i>
Task-1: Machinery distribution for demonstrations and to develop service providers
<i>C: Trainings and development and distribution of outreach materials on better bet agronomy and scale appropriate mechanization</i>
Task-1: Capacity Building and Trainings of extension functionaries, service providers and progressive farmers
Task-2: Training events at institutes of national and international importance, including ISRAC
Task-3: Preparation and distribution of communication material
<i>D: Review and planning meeting & Monitoring & Evaluation (M&E) activities</i>
Activity 2.2: Dissemination of effective IPM technologies to improve rice productivity
<i>A. Demonstration of effective IPM technologies to improve rice productivity in Assam</i>
Activity 2.3: Developing a rice knowledge bank for the state of Assam
Deliverable-3: Strengthening Post-Harvest Management by Introducing Improved Practices Including Post-Harvest Mechanization and Supporting Service Economy to Reduce Losses, Increase Efficiency and Profitability, and Improve Rice Value Chain
Activity 3.1: Demonstration and dissemination of improved post harvest technologies for large scale adoption at farm level
Activity 3.2: Rice value chain for support and development of entrepreneurs at commercial level
Activity 3.3: Capacity building of the farmers, SPs, dealers and other extension functionaries for scale adoption of post- harvest management practices
Deliverable-4: Developing Extrapolation Domain of Cropping System for Efficient Targeting of Technologies in low-productive rice-fallows and Stress Prone Areas
Activity-4.1: Extrapolation Domains for efficient Targeting of Technologies

15) **Deliverables/Activities & Timeline (at **Appendix-1**) and Payment Schedule Matrix (at **Appendix-2**):**

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Appendix-1: Deliverables/Activities and the timeline

Deliverables and Timeline														
SI	Sub-activity	Unit	Unit Particulars	Y-1		Y-2		Y-3		Y-4		Y-4-4.5		Total
				1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	
	Deliverable A: Inception Report	No.	Report (No.)	1										1
	Deliverable 1: Strengthening Seed Systems & Adoption of High Yielding Stress-Tolerant Rice Varieties													
	Activity 1.1 Minikit based demonstrations													
1	Supervision, management and monitoring of Mini kits based demonstrations of STRVs by ATMA	No.	Minikits (5 kg)	5000		8000		8000		6000		2000		29000
2	Supervision, management and monitoring of Mini kits based demonstrations of STRVs by Development partners	No.	Minikits (5 kg)	2000		3000		3000		1000		600		9600
3	Organize procurement of seed for all Minikits	No.	Minikits (5 kg)	7000		11000		11000		7000		2500		38500
	Activity 1.2 On farm adaptive demonstrations													
1	On-farm Adaptive demonstrations of New STRVs by AAU/KVKs	No.	Demos (0.4 ha each)	200		350		300		200		75		1125
2	Organized procurement of seeds for AAU/KVK led on-farm demonstrations	No.	Demos (0.4 ha each)	200		350		300		200		75		1125
	Activity 1.3 Cluster demonstrations of STRVs													
1	Cluster Demonstrations of STRVs by AAU/KVKs	No.	Demos (5 ha each)	250		350		350		200		100		1250
2	Organized procurement of seeds for AAU/KVK led cluster demonstrations	No.	Demos (each of 5 ha size)	250		350		350		200		100		1250
	Activity 1.4 Demonstration plot through dealer network													
1	Demonstrations Plots through Dealers Networks/ Agro-vets	No.		250		400		400		300		100		1450
	Activity 1.5 Head to head demonstrations													
1	Organizing Head to Head (H2H) demonstrations of STRVs (Kharif)	No.	Demos	500		600		600		300		175		2175
2	Organizing Head to Head (H2H) demonstrations of STRVs (Boro)	No.	Demos		400		650		650		300			2000
	Activity 1.6 Client oriented demonstrations (Crop Cafeteria)													
1	Client Oriented Rice Expo for STRVs	No.	No of EXPOs		1		1		1		1			4
	Activity 1.7 Training and capacity building													
1	Trainings on Quality Seed Production	No.	No of training, Each training is of 25 farmers	30	20	30	20	30	20	30	20	20		220
2	Awareness Creation Meetings at District Level Engaging Multiple Stakeholders	No.	No of meetings	8	2	6	2	6	2	4	1	2		33
3	Dealers Meetings	No.	No. of meetings	5	2	4	3	4	2	2	1	1		24
	Activity 1.8 Linkages for seed production													
	Seed stakeholder meeting	No.	No of meetings	1		1		1		1		1		5
1	Linkages for BS and FS Production & Supply with Public and Private Seed Corporations	No.	Amount invested in'000INR	1	1	2	1	2	1	2	1	1		12
	Activity 1.9 Communication and report writing													
1	Data Collection and Analysis/ Report Writing/ Hiring of Short Term Consultant	No.	No of documentation	1	1	1	1	1	1	1	1	1		9
2	Extension materials/brochures/seed training material	No.	Amount spent in 000INR	450	250	350	350	350	350	150	150	50		2450
	Activity 1.10 Impact Assessment													
1	Impact assessment of STRVs in Assam	No.	No. of studies	1						1				2
	Deliverable 2 Raising Productivity, Profitability, and Resource Use Efficiencies of Rice Based Cropping Systems in Assam through Improved Crop and Natural Resource Management													
	Activity 2.1 Out scaling of integrated crop management practices and scale appropriate mechanization through demonstrations, learning Centre's and capacity building to support knowledge dissemination													
	A: Out scaling of integrated crop management practices through demonstrations and learning centres													
	Task-1 Identification and handholding of progressive farmers and local entrepreneur for creation of service economy													
1	Identification of progressive farmers and local dealers for precision agronomy demonstrations, improved mechanization	No.	Meetings	10	6									16
	Task-2 Integrated Crop Management demos (ICMDs) for transplanted rice													
1	Integrated Crop Management demos (ICMD) during Sali season (winter)	No.	Demo(0.25 ha)	300		600		800		1000		650		3350

Deliverables and Timeline														
SI	Sub-activity	Unit	Unit Particulars	Y-1		Y-2		Y-3		Y-4		Y-4-4.5		Total
				1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st		
2	ICMDs during summer/boro season	No.	Demo(0.25 ha)		250		400		600		800			2050
3	Demonstration and promotion of high-value Premium Quality and nutritious Rice (PQR) combined with better bet agronomy	No.	Demo(0.25 ha)	70		105		150		195		115		635
Task-3 Learning Centres including field day														
1	Integrated Crop Management demos (ICMD) for transplanted rice during Sali season	No.	Demo (1 ha)	50		100		120		150		90		510
2	Integrated Crop management demos for Boro & Aahu Rice (Summer)	No.	Demo (1 ha)		50		80		100		120			350
3	Demonstration and promotion of specialty and nutritious rice combined with better bet agronomy	No.	Demo (1 ha)	15		25		40		50		35		165
4	Resource efficient alternate establishment method	No.												
	a) Dry DSR	No.	Demo (1 ha)	10	30	20	40	20	60	40	60	40		320
	b) Wet DSR	No.	Demo (1 ha)	40		60		80		100		40		320
	c) Mat nursery and Mechanical transplanter	No.	Demo (1 ha)	20	20	30	30	40	40	50	50	40		320
B Machinery distribution and handholding to help support organization of demonstration, creation of service economy, entrepreneurship development, and network creation, and scale up mechanization														
Task-1 Machinery distribution for demonstrations and to develop service providers														
1	Seed Drill	No.	No.	16		16								32
2	Rice Transplanter	No.	No.	16		16								32
3	Drum Seeder	No.	No.	100		100								200
4	Battery operated Power Sprayer	No.	No.	120		120								240
5	Power Weeder	No.	No.	16		16								32
6	Power tiller operated inclined plate planter	No.	No.	4		4								8
7	Roundtable meetings for promotion of service economy/ handholding support to SPs and impact pathway assessment	No.		1		1		1		1				4
C Trainings and development and distribution of outreach materials on better bet agronomy and scale appropriate mechanization														
Task-1 Capacity Building and Trainings of extension functionaries, service providers and progressive farmers														
a) Training events														
1	One day training	No.	No. of trainings	5	5	15	15	20	20	30	30	20		160
2	One day training	No.	No. of trainings	3	2	8	7	10	10	15	15	15		85
3	Two days training	No.	No. of trainings	3	2	5	5	10	10	13	12	10		70
4	Three days training	No.	No. of trainings	2	2	2	2	2	2	2	2	1		17
5	Season long training	No.	No. of trainings	1	1	1	1	1	1	2	1	1		10
b): Exposure visits/learning tours														
1	Within district	No.	No. of tours	6	6	6	6	6	6	6	6	4		52
2	Within Assam AAU	No.	No. of tours	1	1	1	1	2	2	2	2	1		13
3	Outside Assam AAU	No.	No. of tours	3	1	1	1	1	1	1	1	1		11
Task-2: Training events at institutes of national and international importance, including ISRAC														
	Within Country	No.	No. of person	30	20	15	15	15	15	15	15	20		160
	Outside Country	No.	No. of person	10		5			5		5	3		28
Task-3: Preparation and distribution of communication material														
1	Design, preparation, printing, and dissemination of outreach materials	No.	Set	280	120	240	160	210	140	210	140	180		1680
D Review and planning meeting & Monitoring & Evaluation (M&E) activities														
1	Review and planning meeting including annual project workshop	No.	No. of meeting	1			1		1		1			4
Activity 2.2 Dissemination of effective IPM technologies to improve rice productivity														
A: Demonstration of effective IPM technologies to improve rice productivity in Assam														
1	Demonstrations of improved IPM modules in farmers fields	No.	No. of Demos	160		160		160		160		160		800
2	Supporting IPM with cluster demos	No.	No. of Demos	250		350		350		200		150		1300

Deliverables and Timeline														
SI	Sub-activity	Unit	Unit Particulars	Y-1		Y-2		Y-3		Y-4		Y-4-4.5		Total
			Half year	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st		
	Activity 2.3 Developing a rice knowledge bank for the state of Assam													
1	Development and strengthening of District knowledge platforms	No.	No.	10	7									17
2	Stakeholder workshops	No.	No.	2	2	4	2	3	3	1	1	1		19
3	Content writeshops	No.	No.	1	1	1								3
4	Video production	No.	No.	6		12		12						30
5	Fact sheet development	No.	No.	25	25	25	25							100
6	Training manual development	No.	No.	1		1								2
7	Website development	No.	No			1		1						2
8	Field testing of RKB	No.	No.			1		1		1		1		4
9	Management and Maintenance of RKB	No.		0		1	1	1	1	1	1			6
10	RKB Usage training	No.	No.		8	8	16	8	16	8	8	8		80
11	Management and Maintenance training	No.	No.				8		8	8	8			32
Deliverable-3Strengthening Post-Harvest Management by Introducing Improved Practices Including Post-Harvest Mechanization and Supporting Service Economy to Reduce Losses, Increase Efficiency and Profitability, and Improve Rice Value Chain														
Activity 3.1 Demonstration and dissemination of improved post harvest technologies for large scale adoption at farm level														
1	Assessment of opportunities for introduction/ up-grading of different SI technologies and identification of SPs for training on PH technologies	No.	Workshop	6	5	5								16
2	Machinery/storage bags demonstrations/trainings through progressive farmers/ KVKs.	No.												
	i) Machinery/ storage bags training through progressive farmers/ KVKs	No.	Trainings	13	12	17	18	37	37	49	49	56		288
	ii) Machinery/ storage bags demonstrations for progressive farmers/SPs	No.	Demos	13	12	17	18	37	37	49	49	56		288
	iii) Machines to be purchased for training and demonstration (like Reaper, Axial Flow Thresher , Open drum Thresher, Mini combine, Solar bubble drier, Re-circulating batch drier, Super Bag, RCC ring bin, Portable rice mill, Indented cylinder separator, Dry grinding machine, Rice puffing machine an Rice Flake machine etc.)	No.	No	8142		7136								15278
	Reaper	No.	No	9		10								19
	Axial Flow Thresher	No.	No	9		8								17
	Open Drum Thresher	No.	No	22		18								40
	Mini Combine	No.	No	2		1								3
	Solar Bubble Drier	No.	No	2		2								4
	RE-Circulating Batch Drier	No.	No	1		1								2
	Super Bag	No.	No	8000		7000								15000
	RCC Ring Bin	No.	No	74		74								148
	Portable Rice Mill	No.	No	10		9								19
	Indented Cylinder Separator	No.	No	4		4								8
	Dry Grinding Machine	No.	No	4		4								8
	Rice Puffing Machine	No.	No	4		4								8
	Rice Flake Machine	No.	No	1		1								2
Activity 3.2 Rice value chain for support and development of entrepreneurs at commercial level														
1	Rice value chain related Machinery training through entrepreneur in collaboration with KVKs	No.	Training	4	4	5	4	10	9	13	12	14		75
2	Rice value chain related Machinery demonstrations through entrepreneur in collaboration with KVKs.	No.	Demos	12	12	17	16	30	29	36	37	42		231
Activity 3.3 Capacity building of the farmers, SPs, dealers and other extension functionaries for scale adoption of post- harvest management practices														
1	Round table workshops to enhance linkages of manufacturer, service providers with policy makers in government and other stakeholders	No.	Meetings		1		1		1		1			4

Deliverables and Timeline														
SI	Sub-activity	Unit	Unit Particulars	Y-1		Y-2		Y-3		Y-4		Y-4-4.5		Total
			Half year	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st		
2	Training, M&E, capacity building and dissemination and communication materials for awareness creation for scale appropriate mechanization													
	i) Exposure visit of farmers within/outside Assam	No.	No.	1	1	4	4	7	7	7	6	9		46
	ii) Capacity building and training for extension functionaries	No.	No.	10	10	10	10	10	10	10	10	12		92
	iii) Preparation and dissemination of communication material like two pagers, factsheets, training modules, and videos	No.	No.	2		3	3	5						13
	iv) Annual meeting of the project staff	No.	No.	0	1		1		1		1	1		5
	v) Training of extension functionaries at institute of national and international importance													
	Within Country	No.	persons	5	5	5	5	5	5	5	5	6		46
	Outside Country	No.	persons		5		5	5		5		4		24
	Deliverable-4 Developing Extrapolation Domain of Cropping System for Efficient Targeting of Technologies in low-productive rice-fallows and Stress Prone Areas													
	Activity-1 Extrapolation Domains for efficient Targeting of Technologies													
1	Development spatial database for developing extrapolation domains	% done	--	26%	26%	21%	20%	7%						100%
2	Acquisition planning for satellite data and procurement	% done		18%	17%	23%	22%	20%						100%
3	Pre-processing of satellite data and image classification, purchase of secondary data sets, High resolution Multispectral sensor satellite and SAR data; GPS (5 nos.): infrared camera (one nos.); yearly license renewal fee of GIS software (2) and Image processing software (2), supplies and associated technical support services	% done		29%	29%	10%	9%	9%	8%	2%	2%	2%		100%
4	Creation of geo-spatial thematic layers, setting up needed thresholds for each parameter	% done				25%	25%	25%	25%					100%
5	Site wise collection of geo-referenced data to qualitatively validate classified outputs from 16 districts (including travel and associated costs)	% done		11%	11%	16%	16%	16%	16%	14%				100%
6	Preparation of decision rules and decision tree for mapping suitability domains of tested technologies	% done				8%	8%	21%	21%	21%	21%			100%
7	Geo-spatial Modelling for developing Extrapolation domain maps for 4 innovative cropping system are prepared (including travel and associated costs)	% done						25%	25%	50%				100%
8	Generation of extrapolation domain maps and qualitative validation (including travel and associated costs)	% done		5%		13%	12%	20%	20%	10%	10%	10%		100%
9	Reports & Maps prepared and shared with state partners for validation and use	% done	--			13%		15%	16%	21%	20%	15%		100%
10	Development, framework and design of WebGIS	% done				10%	10%	20%	19%	16%	15%	10%		100%
11	Development of Atlases, brochures, promotional and awareness creation material and detailed reports and publications	% done		0		10%		40%		40%		10%		100%
12	Multi location farmer participatory demonstrations are conducted using extrapolation domain cropping system maps includes seed cost of pulses to target in rice fallows	% done		13%	12%	13%	12%	13%	12%	13%	12%			100%

ACD

Appendix-2: Payment Schedule matrix [Consistent with the attached technical approach and methodology described in the proposal from IRRI]

SI	Sub-activity		Unit	Y-1		Y-2		Y-3		Y-4		Y-5	Total
			Half year	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	
		No.	Report (No.)	1									1
		% payment		10%									10.00%
		Contractual value		457741									457741
Deliverable 1: Strengthening Seed Systems & Adoption of High Yielding Stress-Tolerant Rice Varieties													
Activity 1.1 Minikit based demonstrations													
1	Supervision, management and monitoring of Mini kits based demonstrations of STRVs by ATMA	No.	Minikits (5 kg)	5000		8000		8000		6000		2000	29000
		% payment		0.080%	0.011%	0.128%	0.020%	0.129%	0.020%	0.119%	0.020%	0.086%	0.612%
		Contractual value		3662	504	5859	915	5882	915	5465	915	3914	28032
2	Supervision, management and monitoring of Mini kits based demonstrations of STRVs by Development partners	No.	Minikits (5 kg)	2000		3000		3000		1000		600	9600
		% payment		0.048%	0.011%	0.072%	0.011%	0.073%	0.011%	0.034%	0.011%	0.045%	0.317%
		Contractual value		2197	504	3296	504	3342	522	1575	504	2063	14504
3	Organize procurement of seed for all Minikits	No.	Minikits (5 kg)	7000		11000		11000		7000		2500	38500
		% payment		0.090%	0.011%	0.141%	0.012%	0.142%	0.012%	0.119%	0.012%	0.079%	0.620%
		Contractual value		4120	504	6472	549	6477	568	5465	568	3636	28359
Activity 1.2 On farm adaptive demonstrations													
4	On-farm Adaptive demonstrations of New STRVs by AAU/KVKs	No.	Demos (0.4 ha each)	200		350		300		200		75	1125
		% payment		0.070%	0.011%	0.123%	0.011%	0.105%	0.011%	0.085%	0.011%	0.076%	0.503%
		Contractual value		3204	504	5607	504	4806	504	3909	504	3479	23020
5	Organized procurement of seeds for AAU/KVK led on-farm demonstrations	No.	Demos (0.4 ha each)	200		350		300		200		75	1125
		% payment		0.050%	0.011%	0.088%	0.011%	0.075%	0.011%	0.067%	0.011%	0.052%	0.376%
		Contractual value		2289	504	4005	504	3433	504	3085	504	2380	17206
Activity 1.3 cluster demonstrations of STRVs													
6	Cluster Demonstrations of STRVs by AAU/KVKs	No.	Demos (5 ha each)	250		350		350		200		100	1250
		% payment		0.225%	0.110%	0.315%	0.110%	0.315%	0.110%	0.223%	0.110%	0.208%	1.727%
		Contractual value		10299	5035	14419	5035	14437	5035	10226	5035	9521	79043
7	Organized procurement of seeds for AAU/KVK led cluster demonstrations	No.	Demos (each of 5 ha size)	250		350		350		200		100	1250
		% payment		0.200%	0.100%	0.280%	0.100%	0.284%	0.100%	0.195%	0.100%	0.196%	1.556%
		Contractual value		9155	4577	12817	4577	13018	4594	8926	4577	8972	71215
Activity 1.4 Demonstration plots through dealer network													
8	Demonstrations Plots through Dealers Networks/ Agro-vets	No.		250		400		400		300		100	1450
		% payment		0.160%	0.090%	0.248%	0.090%	0.256%	0.090%	0.221%	0.090%	0.195%	1.441%
		Contractual value		7324	4120	11361	4120	11736	4120	10116	4120	8926	65942
Activity 1.5 Organizing Head to Head Demonstrations													
9	Organizing Head to Head (H2H) demonstrations of STRVs (Kharif)	No.	Demos	500		600		600		300		175	2175
		% payment		0.340%	0.150%	0.398%	0.150%	0.408%	0.152%	0.245%	0.152%	0.258%	2.253%
		Contractual value		15563	6866	18218	6866	18676	6958	11215	6958	11810	103129
10	Organizing Head to Head (H2H) demonstrations of STRVs (Boro)	No.	Demos	400		650		650		300		0	2000
		% payment		0.150%	0.320%	0.150%	0.500%	0.150%	0.520%	0.150%	0.304%	0.000%	2.245%
		Contractual value		6866	14648	6866	22887	6884	23821	6884	13915	0	102772
Activity 1.6 Client oriented demonstrations													
11	Client Oriented Rice Expo for STRVs	No.	No of EXPOs	1		1		1		1		0	4
		% payment		0.053%	0.211%	0.050%	0.180%	0.050%	0.195%	0.053%	0.230%	0.000%	1.022%
		Contractual value		2426	9635	2289	8239	2289	8944	2426	10528	0	46777

Sl	Sub-activity		Unit	Y-1		Y-2		Y-3		Y-4		Y-5	Total
			Half year	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	
Activity 1.7 Training and awareness creation													
12	Trainings on Quality Seed Production	No.	No of training (25 farmers each)	30	20	30	20	30	20	30	20	20	220
		% payment		0.195%	0.130%	0.170%	0.120%	0.180%	0.130%	0.225%	0.180%	0.289%	1.620%
		Contractual value		8926	5951	7782	5193	8256	5951	10299	8239	13249	74145
13	Awareness Creation Meetings at District Level Engaging Multiple Stakeholders	No.	No of meetings	8	2	6	2	6	2	4	1	2	33
		% payment		0.140%	0.035%	0.103%	0.035%	0.105%	0.035%	0.125%	0.024%	0.118%	0.720%
		Contractual value		6408	1602	4715	1579	4825	1620	5722	1099	5401	32971
14	Dealers Meetings	No.	No. of meetings	5	2	4	3	4	2	2	1	1	24
		% payment		0.110%	0.044%	0.082%	0.062%	0.088%	0.050%	0.058%	0.029%	0.059%	0.582%
		Contractual value		5035	2014	3753	2838	4028	2289	2655	1327	2721	26661
Activity 1.8 Linkages for Seed Production													
15	Seed stakeholder meeting	No.	No of meetings	1		1		1		1		1	5
		% payment		0.225%	0.000%	0.220%	0.000%	0.229%	0.000%	0.258%	0.000%	0.289%	1.222%
		Contractual value		10299	0	10070	0	10482	0	11828	0	13249	55929
16	Linkages for BS and FS Production & Supply with Public and Private Seed Corporations	No.	No. of Linkages	1	1	2	1	2	1	2	1	1	12
		% payment		0.090%	0.090%	0.180%	0.090%	0.190%	0.099%	0.199%	0.100%	0.136%	1.175%
		Contractual value		4120	4120	8239	4120	8697	4532	9127	4596	6225	53775
Activity 1.9 Extension, communication, outreach (& report writing)													
17	Data Collection and Analysis/ Report Writing/ Hiring of Short Term Consultant	No.	No of documentation	1	1	1	1	1	1	1	1	1	9
		% payment		0.175%	0.175%	0.175%	0.175%	0.186%	0.186%	0.199%	0.199%	0.266%	1.737%
		Contractual value		8010	8010	7988	7988	8532	8532	9127	9127	12176	79491
17	Extension materials/brochures/seed training material	No.	Amount spent in 000INR	450	250	350	350	350	350	150	150	50	2450
		% payment		0.160%	0.088%	0.124%	0.124%	0.126%	0.126%	0.170%	0.170%	0.125%	1.213%
		Contractual value		7324	4828	5653	5653	5786	5786	7782	7782	5722	55515
Activity 1.10 Impact assessment													
18	Impact assessment of STRVs in Assam	No.	No. of studies	1						1			2
		% payment		0.260%	0.000%	0.000%	0.000%	0.000%	0.000%	0.450%	0.000%	0.000%	0.710%
		Contractual value		11901	0	0	0	0	0	20598	0	0	32500
SUB-TOTAL OBJECTIVE 1		No.		16548	276	25445	377	25345	376	15892	174	5801	90234
		% payment		2.82%	1.60%	3.05%	1.80%	3.09%	1.86%	3.20%	1.75%	2.48%	21.65%
		Contractual value		129129	73124	139410	82371	141587	85195	146431	80297	113444	990987
Yearly Total of Objective 1					202253		221780		226781		226728		990987
Deliverable 2 Raising Productivity, Profitability, and Resource Use Efficiencies of Rice Based Cropping Systems in Assam through Improved Crop and Natural Resource Management													
Activity 2.1 Out scaling of integrated crop management practices and scale appropriate mechanization through demonstrations, learning Centre's and capacity building to support knowledge dissemination													
A: Out scaling of integrated crop management practices through demonstrations and learning centres													
Task-1 Identification and handholding of progressive farmers and local entrepreneur for creation of service economy													
19	Identification of progressive farmers and local dealers for precision agronomy demonstrations, improved mechanization	No.	Meetings	10	6								16
		% payment		0.080%	0.048%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.128%
		Contractual value		3662	2197	0	0	0	0	0	0	0	5859
Task-2 Integrated Crop Management demos (ICMDs) for transplanted rice					0								
20	a) Integrated Crop Management demos (ICMD) during Sali season (winter)	No.	Demo(0.25 ha)	300		600		800		1000		650	3350
		% payment		0.154%	0.110%	0.298%	0.200%	0.412%	0.280%	0.482%	0.300%	0.560%	2.796%
		Contractual value		7049	5035	13641	9155	18959	12817	22063	13749	25634	128001
21	b) ICMDs during summer/boro season	No.	Demo(0.25 ha)	250		400		600		800			2050

SI	Sub-activity		Unit	Y-1		Y-2		Y-3		Y-4		Y-5	Total
				1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	
		% payment		0.000%	0.220%	0.000%	0.315%	0.000%	0.514%	0.000%	0.595%	0.000%	1.644%
		Contractual value		0	10070	0	14390	0	23528	0	27236	0	75230
22	Demonstration and promotion of high-value Premium Quality and nutritious Rice (PQR) combined with better bet agronomy	No.	Demo(0.25 ha)	70		105		150		195		115	635
		% payment		0.190%	0.050%	0.210%	0.089%	0.320%	0.097%	0.428%	0.097%	0.300%	1.781%
		Contractual value		8697	3280	9613	4069	14648	4440	19591	4440	13732	81519
	Task-3 Learning Centres including field day												
23	a) Integrated Crop Management demos (ICMD) for transplanted rice during Sali season	No.	Demo (1 ha)	50		100		120		150		90	510
		% payment		0.070%	0.030%	0.132%	0.064%	0.165%	0.064%	0.201%	0.064%	0.171%	0.961%
		Contractual value		3204	1373	6032	2942	7553	2930	9201	2930	7017	43991
24	b) Integrated Crop management demos for Boro & Aahu Rice (Summer)	No.	Demo (1 ha)	50		80		100		120			350
		% payment		0.000%	0.105%	0.000%	0.166%	0.000%	0.195%	0.000%	0.203%	0.000%	0.669%
		Contractual value		0	4806	0	7399	0	8920	0	9292	0	30923
25	Demonstration and promotion of specialty and nutritious rice combined with better bet agronomy	No.	Demo (1 ha)	15		25		40		50		35	165
		% payment		0.044%	0.010%	0.078%	0.008%	0.117%	0.020%	0.122%	0.020%	0.126%	0.544%
		Contractual value		1991	458	3547	366	5356	915	5384	915	3768	24901
26	Resource efficient alternate establishment method	No.		0									0
		% payment		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
		Contractual value		0	0	0	0	0	0	0	0	0	0
27	a) Dry DSR	No.	Demo (1 ha)	10	30	20	40	20	60	40	60	40	320
		% payment		0.085%	0.240%	0.157%	0.312%	0.157%	0.460%	0.284%	0.402%	0.320%	2.417%
		Contractual value		3891	10986	7187	14282	7187	21056	13000	18401	14648	110616
28	b) Wet DSR	No.	Demo (1 ha)	40		60		80		100		40	320
		% payment		0.285%	0.000%	0.472%	0.000%	0.550%	0.000%	0.561%	0.000%	0.250%	2.110%
		Contractual value		13046	0	21605	0	25176	0	33679	0	11144	96950
29	c) Mat nursery and Mechanical transplanter	No.	Demo (1 ha)	20	20	30	30	40	40	50	50	40	320
		% payment		0.057%	0.057%	0.078%	0.078%	0.090%	0.090%	0.092%	0.092%	0.090%	0.724%
		Contractual value		2609	2609	3570	3570	4120	4120	4211	4211	4120	33140
B Machinery distribution and handholding to help support organization of demonstration, creation of service economy, entrepreneurship development, and network creation, and scale up mechanization													
Task-1 Machinery distribution for demonstrations and to develop service providers													
30	Seed Drill	No.	No.	16		16							32
		% payment		0.045%	0.000%	0.034%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.079%
		Contractual value		2050	0	1556	0	0	0	0	0	0	3616
31	Rice Transplanter	No.	No.	16		16							32
		% payment		0.045%	0.000%	0.034%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.079%
		Contractual value		2050	0	1556	0	0	0	0	0	0	3616
32	Drum Seeder	No.	No.	100		100							200
		% payment		0.280%	0.000%	0.200%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.480%
		Contractual value		12817	0	9132	0	0	0	0	0	0	21949
33	Battery operated Power Sprayer	No.	No.	120		120							240
		% payment		0.330%	0.000%	0.210%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.540%
		Contractual value		15105	0	9390	0	0	0	0	0	0	24495
34	Power Weeder	No.	No.	16		16							32
		% payment		0.045%	0.000%	0.035%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.080%
		Contractual value		2060	0	1579	0	0	0	0	0	0	3639

SI	Sub-activity		Unit	Y-1		Y-2		Y-3		Y-4		Y-5	Total
			Half year	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	
35	Power tiller operated inclined plate planter	No.	No.	4		4							8
		% payment		0.011%	0.000%	0.009%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.020%
		Contractual value		504	0	389	0	0	0	0	0	0	893
36	Roundtable meetings for promotion of service economy/ handholding support to SPs and impact pathway assessment	No.		1		1		1		1			4
		% payment		0.030%	0.000%	0.025%	0.000%	0.025%	0.000%	0.021%	0.000%	0.000%	0.101%
		Contractual value		1373	0	1121	0	1144	0	961	0	0	4600
C Trainings and development and distribution of outreach materials on better bet agronomy and scale appropriate mechanization													
Task-1 Capacity Building and Trainings of extension functionaries, service providers and progressive farmers													
a) Training events													
37	One day training (ATMA)	No.	No.	5	5	15	15	20	20	30	30	20	160
		% payment		0.072%	0.072%	0.145%	0.145%	0.198%	0.198%	0.218%	0.218%	0.200%	1.466%
		Contractual value		3296	3296	6637	6637	9063	9063	9979	9979	9155	67105
38	One day training (AAU)	No.	No.	3	2	8	7	10	10	15	15	15	85
		% payment		0.043%	0.029%	0.080%	0.070%	0.099%	0.099%	0.131%	0.131%	0.150%	0.831%
		Contractual value		1977	1318	3639	3181	4539	4540	5996	5996	6866	38053
39	Two days training	No.	No.	3	2	5	5	10	10	13	12	10	70
		% payment		0.086%	0.059%	0.100%	0.100%	0.200%	0.200%	0.201%	0.200%	0.200%	1.345%
		Contractual value		3937	2761	4555	4555	9150	9155	9201	9155	9155	61562
40	Three days training	No.	No.	2	2	2	2	2	2	2	2	1	17
		% payment		0.087%	0.087%	0.060%	0.060%	0.060%	0.060%	0.054%	0.054%	0.030%	0.551%
		Contractual value		3962	3962	2724	2724	2746	2749	2472	2472	1373	35222
41	Season long training	No.	No.	1	1	1	1	1	1	2	1	1	10
		% payment		0.080%	0.080%	0.074%	0.074%	0.080%	0.080%	0.136%	0.074%	0.090%	0.768%
		Contractual value		3662	3662	3387	3387	3662	3662	6225	3387	4120	35155
b): Exposure visits/learning tours													
42	Within district	No.	Number	6	6	6	6	6	6	6	6	4	52
		% payment		0.025%	0.025%	0.020%	0.020%	0.020%	0.020%	0.016%	0.016%	0.016%	0.177%
		Contractual value		1144	1144	893	893	915	915	732	732	732	8102
43	Within Assam AAU	No.		1	1	1	1	2	2	2	2	1	13
		% payment		0.007%	0.007%	0.006%	0.006%	0.012%	0.012%	0.009%	0.009%	0.014%	0.082%
		Contractual value		320	320	272	272	549	549	412	412	511	3749
44	Outside Assam AAU	No.		3	1	1	1	1	1	1	1	1	11
		% payment		0.090%	0.030%	0.025%	0.025%	0.025%	0.025%	0.018%	0.018%	0.010%	0.265%
		Contractual value		4120	1373	1121	1121	1144	1144	824	824	458	12138
Task-2: Training events at institutes of national and international importance, including ISRAC													
45	Within Country	No.	Number of person	30	20	15	15	15	15	15	15	20	160
		% payment		0.050%	0.035%	0.015%	0.015%	0.015%	0.015%	0.012%	0.012%	0.020%	0.188%
		Contractual value		2289	1662	664	664	687	687	549	549	915	5686
46	Outside Country	No.	Number of person	10		5			5		5	3	28
		% payment		0.070%	0.000%	0.025%	0.000%	0.000%	0.025%	0.000%	0.017%	0.015%	0.152%
		Contractual value		3204	0	1121	0	0	1144	0	778	587	6925
Task-3: Preparation and distribution of communication material													
47	Design, preparation, printing, and dissemination of outreach materials	No.	Set	280	120	240	160	210	140	210	140	180	1680
		% payment		0.140%	0.060%	0.115%	0.070%	0.098%	0.065%	0.089%	0.058%	0.090%	0.785%
		Contractual value		6408	2746	5141	3204	4458	2975	4074	3655	4120	35910

SI	Sub-activity	Unit		Y-1		Y-2		Y-3		Y-4		Y-5	Total
		Half year		1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	
D Review and planning meeting & Monitoring & Evaluation (M&E) activities													
48	Review and planning meeting including annual project workshop	No.	No.	1		1		1		1			4
		% payment		0.070%	0.000%	0.000%	0.060%	0.000%	0.060%	0.000%	0.050%	0.000%	0.240%
		Contractual value		3204	0	0	2724	0	2746	0	2289	0	10963
Activity 2.2 Dissemination of effective IPM technologies to improve rice productivity													
A. Demonstration of effective IPM technologies to improve rice productivity in Assam													
49	Demonstrations of improved IPM modules in farmers fields	No.	No.	160		160		160		160		160	800
		% payment		0.116%	0.040%	0.112%	0.040%	0.112%	0.040%	0.011%	0.034%	0.160%	0.664%
		Contractual value		5310	1831	5104	1800	5127	1831	485	1556	7324	30376
50	Supporting IPM with cluster demos	No.	No.	250		350		350		200		150	1300
		% payment		0.090%	0.030%	0.124%	0.028%	0.124%	0.030%	0.070%	0.016%	0.070%	0.582%
		Contractual value		4120	1373	5653	1282	5676	1373	3204	732	3204	26619
51	Field staff hiring	No.		0									0
		% payment		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
		Contractual value		0	0	0	0	0	0	0	0	0	0
Activity 2.3 Developing a rice knowledge bank for the state of Assam													
52	Development and strengthening of District knowledge platforms	No.	No.	10	7								17
		% payment		0.080%	0.060%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.140%
		Contractual value		3653	2716	0	0	0	0	0	0	0	6369
53	Stakeholder workshops	No.	No.	2	2	4	2	3	3	1	1	1	19
		% payment		0.030%	0.030%	0.040%	0.028%	0.035%	0.035%	0.011%	0.011%	0.015%	0.235%
		Contractual value		1373	1373	1808	1282	1682	1682	504	504	687	10734
54	Content writeshops	No.	No.	1	1	1							3
		% payment		0.070%	0.070%	0.060%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.200%
		Contractual value		3204	3204	2724	0	0	0	0	0	0	9132
55	Video production	No.	No.	6		12		12					30
		% payment		0.070%	0.000%	0.090%	0.000%	0.090%	0.000%	0.000%	0.000%	0.000%	0.250%
		Contractual value		3204	0	4097	0	4120	0	0	0	0	11421
56	Fact sheet development	No.	No.	25	25	25	25						100
		% payment		0.220%	0.220%	0.150%	0.150%	0.000%	0.000%	0.000%	0.000%	0.000%	0.739%
		Contractual value		10670	10670	6843	6843	0	0	0	0	0	33827
57	Training manual development	No.	No.	1		1							2
		% payment		0.090%	0.000%	0.080%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.170%
		Contractual value		4120	0	3639	0	0	0	0	0	0	7759
58	Website development	No.	No			1		1					2
		% payment		0.000%	0.000%	0.080%	0.000%	0.090%	0.000%	0.000%	0.000%	0.000%	0.170%
		Contractual value		0	0	3639	0	4120	0	0	0	0	7759
59	Field testing of RKB	No.	No.			1		1		1		1	4
		% payment		0.000%	0.000%	0.075%	0.000%	0.075%	0.000%	0.065%	0.000%	0.075%	0.290%
		Contractual value		0	0	3433	0	3433	0	2975	0	3433	13274
60	Management and Maintenance of RKB	No.				1	1	1	1	1	1		6
		% payment		0.000%	0.000%	0.020%	0.020%	0.020%	0.020%	0.012%	0.012%	0.000%	0.104%
		Contractual value		0	0	915	915	915	915	549	549	0	4761
61	RKB Usage training	No.	No.		8	8	16	8	16	8	8	8	80
		% payment		0.000%	0.050%	0.035%	0.065%	0.035%	0.065%	0.031%	0.031%	0.035%	0.347%
		Contractual value		0	2289	1602	2975	1602	2975	1419	1419	1602	15984

SI	Sub-activity	Unit		Y-1		Y-2		Y-3		Y-4		Y-5	Total
			Half year	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	
62	Management and Maintenance training	No.	No.				8		8	8	8		32
		% payment		0.000%	0.000%	0.000%	0.035%	0.000%	0.035%	0.031%	0.031%	0.000%	0.132%
		Contractual value		0	0	0	1602	0	1602	1419	1419	0	6042
	SUB-TOTAL OBJECTIVE 2	No.	No.	1888	259	2556	336	2764	341	3181	358	1586	13269
		% payment		3.477%	1.914%	3.606%	2.308%	3.322%	2.869%	3.395%	2.823%	3.097%	26.811%
		Contractual value		159134	87603	165082	105652	152064	131334	155385	129237	141752	1227242
	Yearly Total of Objective 2			246736		270734		283398		284622		141752	1227242
Deliverable-3 Strengthening Post-Harvest Management by Introducing Improved Practices Including Post-Harvest Mechanization and Supporting Service Economy to Reduce Losses, Increase Efficiency and Profitability, and Improve Rice Value Chain													
Activity 3.1 Demonstration and dissemination of improved post harvest technologies for large scale adoption at farm level													
63	Assessment of opportunities for introduction/ up-grading of different SI technologies and identification of SPs for training on PH technologies	No.	Workshop	11	5								16
		% payment		0.340%	0.170%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.510%
		Contractual value		15563	7772	0	0	0	0	0	0	0	23336
64	Machinery/storage bags demonstrations/trainings through progressive farmers/ KVKs.	No.		0									0
		% payment		0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
		Contractual value		0	0	0	0	0	0	0	0	0	0
65	i) Machinery/ storage bags training through progressive farmers/ KVKs	No.	Trainings	13	12	17	18	37	37	49	49	56	288
		% payment		0.031%	0.029%	0.041%	0.043%	0.070%	0.070%	0.085%	0.085%	0.092%	0.546%
		Contractual value		1419	1327	1877	1968	3204	3204	3891	3891	4211	24993
66	ii) Machinery/ storage bags demonstrations for progressive farmers/SPs	No.	Demos	13	12	17	18	37	37	49	49	56	288
		% payment		0.150%	0.150%	0.210%	0.225%	0.330%	0.330%	0.417%	0.417%	0.480%	2.709%
		Contractual value		6866	6866	9613	10299	15105	15105	19088	19088	21972	124002
67	iii) Machines to be purchased for training and demonstration (like Reaper, Axial Flow Thresher, Open drum Thresher, Mini combine, Solar bubble drier, Re-circulating batch drier, Super Bag, RCC ring bin, Portable rice mill, Indented cylinder separator, Dry grinding machine, Rice puffing machine an Rice Flake machine etc.)	No.	No	8142		7136							15278
		% payment		0.475%	0.000%	0.410%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.885%
		Contractual value		21743	0	18767	0	0	0	0	0	0	40510
Activity 3.2 Rice value chain for support and development of entrepreneurs at commercial level													
68	Rice value chain related Machinery training through entrepreneur in collaboration with KVKs	No.	Training	4	4	5	4	10	9	13	12	14	75
		% payment		0.150%	0.150%	0.160%	0.150%	0.265%	0.262%	0.335%	0.323%	0.367%	2.162%
		Contractual value		6866	6866	7324	6866	12130	11993	15334	14806	16792	98977
69	Rice value chain related Machinery demonstrations through entrepreneur in collaboration with KVKs.	No.	Demos	12	12	17	16	30	29	36	37	42	231
		% payment		0.180%	0.180%	0.250%	0.220%	0.361%	0.358%	0.421%	0.422%	0.150%	2.542%
		Contractual value		8239	8239	11444	10070	16524	16387	19271	19317	6866	116358
Activity 3.3 Capacity building of the farmers, SPs, dealers and other extension functionaries for scale adoption of post- harvest management practices													
70	1) Round table workshops to enhance linkages of manufacturer, service providers with policy makers in government and other stakeholders	No.	Meetings		1		1		1		1		4
		% payment		0.00%	0.22%	0.00%	0.21%	0.00%	0.18%	0.00%	0.18%	0.00%	0.79%
		Contractual value		0	10070	0	9613	0	8239	0	8239	0	36162
	2) Training, M&E, capacity building and dissemination and communication materials for awareness creation for scale appropriate mechanization												
71	i) Exposure visit of farmers within/outside Assam	No.	No.	1	1	4	4	7	7	7	6	9	46
		% payment		0.06%	0.06%	0.21%	0.21%	0.31%	0.31%	0.31%	0.30%	0.40%	2.17%
		Contractual value		2746	2746	9613	9613	14190	14190	14190	13732	18310	99230
72	ii) Capacity building and training for extension functionaries	No.	No.	10	10	10	10	10	10	10	10	12	92
		% payment		0.35%	0.35%	0.32%	0.32%	0.30%	0.30%	0.30%	0.30%	0.30%	2.83%
		Contractual value		16101	16112	14648	14648	13503	13503	13732	13732	18732	129712

Sl	Sub-activity		Unit	Y-1		Y-2		Y-3		Y-4		Y-5	Total
			Half year	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	
73	iii) Preparation and dissemination of communication material like two pagers, factsheets, training modules, and videos	No.	No.	2		3	3	5					13
		% payment		0.30%	0.00%	0.37%	0.37%	0.46%	0.00%	0.00%	0.00%	0.00%	1.51%
		Contractual value		13732	0	17055	17120	21056	0	0	0	0	68963
74	iv) Annual meeting of the project staff	No.	No.	0	1		1		1		1	1	5
		% payment		0.00%	0.17%	0.00%	0.17%	0.00%	0.16%	0.00%	0.16%	0.16%	0.81%
		Contractual value		0	7782	0	7772	0	7095	0	7095	7324	37068
75	Within Country	No.	persons	5	5	5	5	5	5	5	5	6	46
		% payment		0.24%	0.24%	0.24%	0.24%	0.23%	0.22%	0.22%	0.22%	0.24%	2.10%
		Contractual value		10986	10986	10986	10986	10299	10271	10271	10271	10986	46041
76	Outside Country	No.	persons		5		5	5			5		24
		% payment		0.00%	0.20%	0.00%	0.20%	0.18%	0.00%	0.18%	0.00%	0.15%	0.90%
		Contractual value		0	9155	0	9155	8010	0	8010	0	6866	41197
	SUB-TOTAL OBJECTIVE 3	No.	No.	8213	68	7214	85	146	136	174	170	200	16406
		% payment		2.28%	1.92%	2.21%	2.36%	2.49%	2.18%	2.27%	2.41%	2.34%	20.46%
		Contractual value		104262	87923	101326	108109	114023	99988	103787	110171	107059	936648
Yearly Total of Objective 3				192185		209435		214011		213958		107059	936648
Deliverable-4 Developing Extrapolation Domain of Cropping System for Efficient Targeting of Technologies in low-productive rice-fallows and Stress Prone Areas													
Activity-1 Extrapolation Domains for efficient Targeting of Technologies													
77	Development spatial database for developing extrapolation domains	No.	Percentage	26%	26%	21%	20.00%	7%					100%
		% payment		0.164%	0.164%	0.126%	0.122%	0.032%	0.000%	0.000%	0.000%	0.000%	0.608%
		Contractual value		7502	7502	5768	5584	1465	0	0	0	0	27822
78	Acquisition planning for satellite data and procurement	No.		18%	17%	23%	22%	20%					100%
		% payment		0.139%	0.138%	0.135%	0.134%	0.121%	0.000%	0.000%	0.000%	0.000%	0.667%
		Contractual value		6358	6316	6180	6134	5539	0	0	0	0	30526
79	Pre-processing of satellite data and image classification, purchase of secondary data sets, High resolution Multispectral sensor satellite and SAR data; GPS (5 nos.); infrared camera (one nos.); yearly license renewal fee of GIS software (2) and Image processing software (2), supplies and associated technical support services	No.		29%	29%	10%	9%	9%	8%	2%	2%	100%	
		% payment		0.459%	0.459%	0.155%	0.145%	0.108%	0.098%	0.041%	0.043%	0.129%	1.637%
		Contractual value		21010	21010	7095	6637	4944	4466	1895	1964	5905	74946
80	Creation of geo-spatial thematic layers, setting up needed thresholds for each parameter	No.				25%	25%	25%	25%				100%
		% payment		0.000%	0.000%	0.160%	0.160%	0.143%	0.143%	0.000%	0.000%	0.000%	0.606%
		Contractual value		0	0	7324	7324	6546	6546	0	0	0	27739
81	Site wise collection of geo-referenced data to qualitatively validate classified outputs from 16 districts (including travel and associated costs)	No.		11%	11%	16%	16%	16%	16%	14%			100%
		% payment		0.426%	0.426%	0.350%	0.350%	0.282%	0.282%	0.337%	0.000%	0.000%	2.453%
		Contractual value		19518	19518	16021	16021	12885	12885	15426	0	0	112275
82	Preparation of decision rules and decision tree for mapping suitability domains of tested technologies	No.				8%	8%	21%	21%	21%	21%		100%
		% payment		0.000%	0.000%	0.170%	0.170%	0.270%	0.270%	0.347%	0.347%	0.000%	1.574%
		Contractual value		0	0	7782	7782	12359	12359	15884	15884	0	72048
83	Geo-spatial Modelling for developing Extrapolation domain maps for 4 innovative cropping system are prepared (including travel and associated costs)	No.						25%	25%	50%			100%
		% payment		0.000%	0.000%	0.000%	0.000%	0.127%	0.127%	0.433%	0.000%	0.000%	0.687%
		Contractual value		0	0	0	0	5822	5822	19820	0	0	31463
84	Generation of extrapolation domain maps and qualitative validation (including travel and associated costs)	No.		5%		13%	12%	20%	20%	10%	10%	10%	100%
		% payment		0.141%	0.000%	0.190%	0.170%	0.196%	0.196%	0.164%	0.168%	0.466%	1.692%
		Contractual value		6471	0	8697	7782	8972	8972	7507	7690	21349	77439

SI	Sub-activity		Unit	Y-1		Y-2		Y-3		Y-4		Y-5	Total
			Half year	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	
85	Reports & Maps prepared and shared with state partners for validation and use	No.	--			13%		15%	16%	21%	20%	15%	100%
		% payment		0.000%	0.000%	0.105%	0.000%	0.096%	0.101%	0.190%	0.184%	0.498%	1.175%
		Contractual value		0	0	4806	0	4481	4623	8697	8428	22814	53772
86	Development, framework and design of WebGIS	No.				10%	10%	20%	19%	16%	15%	10%	100%
		% payment		0.000%	0.000%	0.347%	0.347%	0.415%	0.394%	0.415%	0.405%	0.589%	2.912%
		Contractual value		0	0	15884	15884	18996	18035	18996	18539	26979	13313
87	Development of Atlases, brochures, promotional and awareness creation material and detailed reports and publications	No.		0		10%		40%		40%		10%	100%
		% payment		0.000%	0.000%	0.285%	0.000%	0.583%	0.000%	0.780%	0.000%	0.674%	2.322%
		Contractual value		0	0	13046	0	36886	0	35704	0	38663	106299
88	Multi location farmer participatory demonstrations are conducted using extrapolation domain cropping system maps includes seed cost of pulses to target in rice fallows	No.		13%	12%	13%	12%	13%	12%	13%	12%		100%
		% payment		0.859%	0.851%	0.590%	0.578%	0.480%	0.435%	0.500%	0.450%	0.000%	4.744%
		Contractual value		39335	38972	27007	26471	21972	19912	22687	20598	0	217153
	SUB-TOTAL OBJECTIVE 4	No.		102.00%	95.00%	162.00%	134.00%	231.00%	162.00%	187.00%	80.00%	47.00%	1200.00%
		% payment		2.189%	2.039%	2.613%	2.176%	2.853%	2.046%	3.207%	1.597%	2.357%	21.077%
		Contractual value		100194	93319	119608	99618	130588	93639	146816	73102	107910	964794
Yearly Total of Objective 4				193513		219226		224227		219918		107910	964794

Objective wise Summary of Payment Schedule											
		Y-1		Y-2		Y-3		Y-4		Y-4	
		1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	Total
% payment	Objective 1	2.821%	1.598%	3.046%	1.800%	3.093%	1.861%	3.199%	1.754%	2.478%	21.650%
Contractual value		129129	73124	139410	82371	141587	85195	146431	80297	113444	990987
% payment	Objective 2	3.477%	1.914%	3.606%	2.308%	3.322%	2.869%	3.395%	2.823%	3.097%	26.811%
Contractual value		159134	87603	165082	105652	152064	131334	155385	129237	141752	1227242
% payment	Objective 3	2.278%	1.921%	2.214%	2.362%	2.491%	2.184%	2.267%	2.407%	2.339%	20.462%
Contractual value		104262	87923	101326	108109	114023	99988	103787	110171	107059	936648
% payment	Objective 4	2.189%	2.039%	2.613%	2.176%	2.853%	2.046%	3.207%	1.597%	2.357%	21.077%
Contractual value		100194	93319	119608	99618	130588	93639	146816	73102	107910	964794
% payment	TOTAL	10.764%	7.471%	11.479%	8.646%	11.759%	8.960%	12.068%	8.581%	10.271%	90.000%
Contractual value		492718	341969	525425	395750	538262	410156	552420	392807	470166	4119672
% payment	Inception Report	10.000%									10.000%
Contractual value		457741									457741
% payment	Grand Total	20.76%	7.47%	11.48%	8.65%	11.76%	8.96%	12.07%	8.58%	10.27%	100%
Contractual value		950459	341969	525425	395750	538262	410156	552420	392807	470166	4577412
	Total Payment	1292428		921175		948419		945226		470166	4577412

E. IRRI's Team

16) Qualifications, expertise, and time allocation of the team members of IRRI for technical support services

(a) The qualifications and expertise of the team members of IRRI.

#	Key specialists/ Area of Expertise	Qualifications& expertise desired
1	Director, ISARC & Principal Scientist (Plant Breeding) - Strategic Advisor- seed systems and technology out-scaling expert: Dr. U.S. Singh, India	<ul style="list-style-type: none"> • Ph.D. degree in Agriculture • Coordination of large multi-disciplinary, multi-stakeholder R&D projects and programs • Expertise on stress-tolerant rice varieties, seed systems, and seed policies. Technology out-scaling, networking, and technology targeting and IPM
2	Senior Scientist and Rainfed Lowland Agronomist for system intensification, crop management for stress-prone rainfed lowland, technology dissemination, and Project Coordinator cum Team Leader: Dr. Sudhanshu Singh, India	<ul style="list-style-type: none"> • Ph.D. degree in Agronomy • Developed expertise in management practices for stress-tolerant rice varieties, precision agronomy, resource conservation technologies, rice-based cropping systems, scale-appropriate mechanization, and delivery • Experience in working in State Department of Agriculture, including ATMA • Project coordination
3	Senior Scientist- Postharvest, rice value chain, and industry promotion expert: Mr. Martin Gummert, Philippines	<ul style="list-style-type: none"> • MSc (Agric. Engineering) degree • Expertise in postharvest technology, agricultural engineering, small and medium industry promotion, information electronics, and facilitating multi-stakeholder platforms
5	Senior Scientist- Weed science, and precision agronomy: Dr. Virender Kumar, Philippines	<ul style="list-style-type: none"> • Ph.D. degree in Agronomy • Expertise in weed management, resource-efficient alternative crop establishment options, precision agronomy, rice-based cropping systems, and scale-appropriate mechanization • Experience in conducting training and module development
5	Development Specialist-Agricultural Research: Seed systems and impact assessment: Dr. Manzoor Dar, India	<ul style="list-style-type: none"> • Ph.D. degree in Agriculture • Expertise in seed dissemination and upscaling through the development of strategic partnerships and entrepreneurship • Experience in coordination of projects for strengthening of seed systems and impact assessment
6	Scientist Remote Sensing and GIS (South Asia)- GIS and RS and extrapolation domain development: Dr. Parvesh Kumar Chandna, India	<ul style="list-style-type: none"> • Ph.D. degree or equivalent in relevant field • Expertise in developing cropping system-level extrapolation domains for efficient targeting of stress-tolerant cultivars and improved crop management practices • Expertise and knowledge in creating high-resolution remote-sensing-based agricultural products and integrating with different biophysical and socioeconomic parameters for efficient targeting of different agricultural technologies
7	Agricultural Economist- Socioeconomics: Dr. Prakashan Chellattan Veetil, India	<ul style="list-style-type: none"> • Ph.D. degree or equivalent in relevant field • Expertise in agricultural economics, creation of service economy, policy issues of farm mechanization, and rice value chain
8	Sr. Associate Scientist-II- Plant diseases and integrated pest management: Dr. Najam W. Zaidi, India	<ul style="list-style-type: none"> • Ph.D. degree in Plant Pathology • Expertise in IPM (rice) and disease management • Experience in biotic and abiotic stress management in stress-tolerant rice varieties • Expertise in biological control of plant diseases
9	Lead Specialist- Knowledge Management and Outreach- Rice Knowledge Bank and capacity building: Dr. Poornima Shankar, India	<ul style="list-style-type: none"> • Ph.D. degree • Experience in managing IRRI's Rice Knowledge Bank and Rice Doctor; development of in-country knowledge banks through large projects such as CSISA and Odisha (CSISA knowledge bank, Odisha rice knowledge bank) • Experience in the development of Rice Doctor for Odisha; content development experience in large projects such as

#	Key specialists/ Area of Expertise	Qualifications& expertise desired
		CSISA and IRRI–Odisha, and working with digital extension platforms such as Digital Green
10	Lead Specialist- Agriculture Research & Development- Agricultural extension and rural dissemination and innovation models, seed promotion and upscaling, impact evaluation, and gender: Ms. Swati Nayak, India	<ul style="list-style-type: none"> • Masters degree in Rural Management • Expertise in agriculture and rural technology delivery models, promotion and scaling of seeds, qualitative research, evaluations, collaboration, and partnership management • Experience in similar seed projects
11	Associate Scientist- Physiology: Plant nutrition and crop management: Dr. Ashish Kumar Srivastava	<ul style="list-style-type: none"> • Ph.D. degree in agriculture • Expertise on integrated nutrient management practices for stress-prone areas; management of stresses
12	Project Manager- Stress Tolerant Rice Program: Project management and coordination: Mr. T.C. Dhoundiyal, ISARC, Varanasi	<ul style="list-style-type: none"> • MBA (Agriculture Management) • Expertise in project management planning and operations such as research support, fund mobilization, communication, supply chain, and training • Wide experience in managing R&D project operations in India
13	Officer-Technical & Administrative Support Seed multiplication and dissemination: Mr. Rohit Katara, ISARC, Varanasi	<ul style="list-style-type: none"> • Master of Software Engineering • Experience in coordination of seed multiplication, field demonstrations, on-farm trials, seed procurement and dissemination, field training, and logistics management, etc.
14	TBR: Technical Expert - Coordination & Linkage development- (fixed) Assam – 1 No.	<ul style="list-style-type: none"> • Ph.D. degree in Agriculture • Ten years of experience in project management on system intensification and knowledge dissemination in rice-based systems, coordination and liaison; report preparation • Liaison with multi-stakeholders • Proficiency in computer and data management
15	TBR: Training and Capacity-Building Expert (L5), ISARC, Varanasi, 1 No.	<ul style="list-style-type: none"> • Masters degree in Agriculture • 3 years of experience in conducting training, developing modules and technical literature, report writing, etc.
16	TBR: Senior Associate Scientist (Precision Agronomist) cum Resident Consultant (L8), Assam- 1 No.	<ul style="list-style-type: none"> • Ph.D. in Agronomy/ Soil science • 10 years of experience in working on crop management, precision agronomy, alternative crop establishment methods, and related mechanization • Experience in report writing, organizing on-farm training, and development of technical literature
17	TBR: Seed Expert (L5), Assam, 1 No.	<ul style="list-style-type: none"> • Master's in Agriculture Sciences • 5 years of experience in working in seed and allied sectors
18	TBR: Postharvest and Rice Value Chain Expert (L6), Assam, 1 No	<ul style="list-style-type: none"> • M. Tech in Agricultural Engineering • 3 years of experience in working on machinery and postharvest practices, including rice value chain
19	TBR: GIS & RS Expert (L5), Assam - 1 No.	<ul style="list-style-type: none"> • M. Tech in Remote sensing & GIS or Masters in relevant field • With minimum of 3 years of work experience on relevant aspects in eastern India
20	TBR: Soil Scientist/Agronomist /Plant Nutrition Expert (L5), Assam, 1 No.	<ul style="list-style-type: none"> • MSc (Ag) in Soil Science/Crop or Plant Physiology/ Agronomy • 5 years of experience in working on integrated crop and nutrient management solutions for rice-based systems
21	TBR: Administrative Support, Coordination, and Project Monitoring (L4), Assam, 1 No.	<ul style="list-style-type: none"> • Bachelor's degree in Business Administration, Management, Communication, Agriculture, Science, Commerce/CA, or Master's degree in similar or related field • Minimum of 4 years of relevant work experience in office administration, data management, coordination, project management, or related field
22	TBR: Assistant Development Scientists for seed/ agronomy/ mechanization (L5), Assam - 2 Nos	<ul style="list-style-type: none"> • B.Sc. in Agriculture /Biology/ Botany or BE (Agricultural Engineering) • Minimum 6 years of work experience in seed systems/ crop management / agronomy/mechanization/ post-harvest/ capacity building/ pest diseases in a project related to agriculture extension or technology dissemination.

#	Key specialists/ Area of Expertise	Qualifications& expertise desired
23	TBR: Junior Development Scientists for seed/agronomy/mechanization (L3) - Assam - 4 Nos	<ul style="list-style-type: none"> B.Sc. (Agriculture)/BE (Agricultural Engineering) 2 years of work experience in seed systems/ crop management/agronomy/mechanization/postharvest/capacity building / GIS/ pests and diseases in a project related to agricultural extension or technology dissemination Or MSc. In agricultural sciences
24	TBR: ICT Expert (fixed) - Assam - 1 No	<ul style="list-style-type: none"> B.Sc./BA/Engineering degree in computer science 3 years of experience in computers and programming
25	TBR: Research Technicians (L2), Assam, - 2 No	<ul style="list-style-type: none"> Intermediate science Experience in data collection and other office-related work

17) **Brief description of each key position- Team members and time input/period of engagement (Numbers in indicates the days an expert will work in the field/Assam)**

#	Name and functional title	Area of expertise	Position assigned	Home / Field	Total (days)
1	U.S. Singh	Principal Scientist and Strategic Advisor, seed systems and technology out-scaling expert	International Expert	Home	120
				Field	0
2	Sudhanshu Singh (Team Leader)	Agronomist and Project Coordinator cum Team Leader , Crop management of STRVs, precision agronomy, and mechanization	International Expert	Home	375
				Field	0
3	Martin Gummert	Postharvest and rice value chain	International Expert	Home	38
				Field	18
4	Virender Kumar	Weed management and precision agronomy	International Expert	Home	18
				Field	18
5	Manzoor Hussain Dar	Seed systems and impact assessment	International Expert	Home	200
				Field	0
6	Parvesh Kumar	GIS & RS and extrapolation domain development	International Expert	Home	190
				Field	0
7	Prakashan	Socioeconomics	International Expert	Home	36
				Field	0
8	Nazam Waris Zaidi	IPM and disease and pest management	National Expert	Home	103
				Field	0
9	Poornima Shankar	ICT in agriculture & rice knowledge management	National Expert	Home	103
				Field	0
10	Swati Nayak	Agricultural extension and impact evaluation & gender	National Expert	Home	112
				Field	0
11	Ashish Srivastava	Crop management, plant nutrition, field demonstrations, etc. (agronomy/nutrient management)	National Expert	Home	103
				Field	0
12	T.C. Dhoundiyal	Project management (administrative support)	National Expert	Home	435
				Field	0
13	Rohit Katara	Coordination of seed multiplication, field demonstrations	National Expert	Home	435
				Field	0
14	TBR: Technical Expert - Coordination & Linkage development- (fixed) Assam – 1 No.	Experience in project management; data management	National/ International Expert	Home	430
				Field	0
15	TBR: Training and Capacity-Building Expert (L5), ISIRAC, Varanasi, 1 No.	Organization of training and capacity development	National Expert	Home	520
				Field	0
16	TBR: Senior Associate Scientist (Precision Agronomist) cum Resident Consultant (L8), Assam- 1 No.	Precision agronomy, crop management, mechanization, day-to-day liaisoning with the concerned APART Implementing entities	National Expert	Home	1080
				Field	0
17	TBR: Seed Expert (L5), Assam, 1 No.	Seed multiplication and out-scaling	National Expert	Home	1080
				Field	0

#	Name and functional title	Area of expertise	Position assigned	Home / Field	Total (days)
18	TBR: Postharvest and Rice Value Chain Expert (L6), Assam, 1 No	Postharvest practices, including rice value chain and mechanization	National Expert	Home	1080
				Field	0
19	TBR: GIS & RS Expert (L5), Assam - 1 No.	GIS & RS, extrapolation domain	National Expert	Home	1080
				Field	0
20	TBR: Soil Scientist/Agronomist /Plant Nutrition Expert (L5), Assam, 1 No.	Soil Scientist & Plant Nutrition Expert - Agronomy, Integrated crop nutrient management for rice based systems	National Expert	Home	1080
				Field	0
21	TBR: Administrative Support, Coordination, and Project Monitoring (L4), Assam, 1 No.	Project coordination and monitoring, communication, budget management	National Expert	Home	1080
				Field	0
22	TBR: Assistant Development Scientists for seed/ agronomy/ mechanization (L5), Assam - 2 Nos	Assistant Development Scientist - Seed systems/ agronomy / Mechanization/ post-harvest/ capacity building/ pest diseases	National Expert	Home	2160
				Field	0
23	TRB: Junior Development Scientists for seed/agronomy/mechanization (L3) - Assam - 4 Nos	Seed systems/ agronomy/mechanization/postharvest/ GIS/ capacity building	National Expert	Home	4240
				Field	0
24	TBR: ICT Expert (fixed) - Assam - 1 No	Computers and programming	National Expert	Home	1060
				Field	0
25	TBR: Research Technicians (L2), Assam, - 2 No	Support for data collection and other office-related work	National Expert	Home	2120
				Field	
		TOTAL			19314

F. DURATION OF ASSIGNMENT AND IMPLEMENTATION MODALITIES

- 18) The Consultant's services shall commence with effect from the date of effectiveness of the contract agreement. The consultancy would be initially for a period of total **54 months (4.5years)**. However, subject to satisfactory performance by IRRI as assessed by ARIAS Society, this agreement would be further extended based on mutually agreed terms and conditions after 54 months.
- 19) The estimated cost for the activities are allocated to either to Assam Agricultural University (AAU) or to ATMA (Department of Agriculture) to work as implementing agencies. IRRI's role is mainly limited to providing technical support and handholding for implementation of project activities. IRRI will be involved in providing technical backstopping in, arranging human resources, machineries purchase, seeds of stress-tolerant varieties, and creating awareness among all stakeholders, facilitating trainings and exposure visits, etc. For this consultancy work, IRRI's experts (International and national staff based in HQ, at ISARC centre, Varanasi, and in the other parts of India, and those based in Assam) will closely work with the Assam Agricultural University, ATMA (state Government), and NGOs to ensure timely implementation of all agreed activities during the assignment.

G. REPORTING REQUIREMENTS

- 20) **IRRI shall submit the following reports for the Deliverables:**

- a) IRRI will submit the reports/ documents to the ARIAS Society during the assignment period, in both soft (MS word/excel and PDF versions) as well as hard copies along with summary report to assess the progress against the targets. All the reports and documents shall be in English language. A brief description of the deliverables is shown below:
- i) **Inception report** will include detailed work plan, milestones, methodology and resources to be mobilized to accomplish the assignment. The Inception Report is to be submitted within **30 days** of signing the contract agreement. The Inception Report *inter alia* should include any information missing in Annex I at the time of Agreement signing, detailed mobilization arrangements, complete description of all activities required for

the key deliverables, complete Work Plan to ensure timely start-up and on-time completion of the implementation of this Agreement;

- ii) **Six-Monthly report:** At the end of every six months, a report highlighting the technical support activities carried out during the period as per Log-frame to be submitted within **30 office working days** from the completion of every six months. The Payment Request from IRRI is to be based on the Payment Schedule at Annex II, updated based on the achievement of the Activity Schedule-vs-payment at Section-IV of Annex I: Work Plan.
 - iii) **Mid-Term report**, to be submitted within **30 office working days** from the completion of **24 months** (two years) from agreement signing and should focus on (a) implementation processes and recommend mid-term corrections, if any, required to achieve the prescribed targets, adjustments in the project design, (b) implementation arrangements to overcome identified bottlenecks and (c) socio-economic analysis, in addition to overall review of the progress of project implementation under different activities and sub-activities, as per the approved action plan covering all deliverables (technical and physical) with suggestions for improvements..
 - iv) **Final/ End of Project report** will have to be submitted by the Consultant **45 days** before the closure of the consultancy assignment. The report shall include a comprehensive overall assessment of the implementation, impact of the activities on rice productivity, production, postharvest management, improvement of the socio-economic status of the rice farmers, etc.
- b) **Documents required for making payment:** IRRI will submit six-monthly invoice supported by (i) six-monthly progress report as per the prescribed format agreed with the client and (ii) a certification from the Director of Agriculture and Director of Research, AAU, Assam stating that technical advisory services have been provided as per the targeted deliverables of the contract. All financial reports shall be expressed in United States dollars.

H. COUNTERPART STAFF, SERVICES, FACILITIES AND PROPERTY TO BE PROVIDED BY THE ARIAS SOCIETY.

- 21) IRRI would provide technical advisory support to the implementing partners viz. DoA, ATMA and AAU in achieving the targets of rice value chain under APART. The ARIAS Society will provide the following inputs to facilitate successful implementation of this Agreement:
- a) Assist IRRI with obtaining work permits and such other documents as shall be necessary to enable the IRRI to perform the Services under this agreement.
 - b) Issue to project implementing officials all such instructions and information as may be necessary or appropriate for the prompt and effective implementation of the Services.
 - c) Access to the project sites in respect of which access is required for performance of the Services.
 - d) ARIAS Society Staff (qualified experts to work with IRRI team):
 - Representative from Directorate of Agriculture, Assam
 - Representative from Assam Agriculture University
 - e) Provide access to all relevant documents like Annual Work Plan (AWP), correspondences, information associated with the assignment and available with the ARIAS Society and the Directorate of Agriculture/ATMAs/AAU.
 - f) Facilitate an effective working space at Guwahati as a common platform for all the CGIAR and other International/UN Agencies to be engaged under APART. This shall be supported with basic amenities and common support staffs. This has been strategized to achieve seamless coordination amongst the agencies. In addition office space arrangements for IRRI's district field staff engaged in APART activities shall be made in the KVKs, AAU/ATMA/DAO offices.

I. REVIEW MECHANISM AND REVIEW COMMITTEE

- 22) There would be monthly review of the progress of the assignment at **district level** (KVK/RARS and ATMA) by the concerned district ATMA which would be chaired by the Project Director, ATMA/ District Agricultural Officer of the concerned district and wherein representative from the respective KVK/RARS would remain present.

- 23) There would be quarterly review of the progress of the assignment at **State level** (ARIAS Society) through a committee chaired by the State Project Director, ARIAS Society and *inter alia* consisting Director of Agriculture; Director of Research, AAU; PD, ATMAS; and Heads of KVKs/RARs as members. This committee would also review the half yearly progress reports and based on the same approve the payments to the consultant.

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(4) CURRICULUM VITAE (CV) OF KEY EXPERT

Position Title and No.	{e.g., K-1, TEAM LEADER}
Name of Expert:	{Insert full name}
Date of Birth:	{day/month/year}; (Age: years, as on)
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:

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 secretary]		

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 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, as and when necessary, 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.

{day/month/year}

Name of Expert

Signature

Alvin Panceri

Signature

16 Mar 2018
{day/month/year}

Name of authorized

Signature

Date

Representative of the Consultant
(the same who signs the Proposal)

CVs are attached separately as per the format given below

Signature

(1) Summary of Costs

Item	Total Amount in USD
Cost of the Financial Proposal Including:	
(A) Remuneration	27,70,854
(B) Reimbursable	13,90,430
Sub-Total Cost:	41,61,284
Add IRRI Overhead @10%	4,16,128
Total Cost of the Financial Proposal (excluding taxes):	45,77,412
Add: Taxes (e.g. GST)	
Grand Total Cost of the Financial Proposal:	

Note: Payments will be made in the currency expressed above

Grand Total Price Only in USD = 4,577,412

(2) Breakdown of Agreed Fixed Rates in Consultant's Contract

Note: Information to be provided in this Form will be used to demonstrate the basis for the calculation of the Contract's ceiling amount; to calculate applicable taxes; and, if needed, to establish payments to the Consultant for possible additional services requested by the Client. **This Form will not be used as a basis for payments:**

#	Name	Area of expertise	Position assigned	Total (days)	Remuneration Rate per Day (US\$)			Total in US \$
						Currency	Amount	
1	U.S. Singh	Principal Scientist and Strategic Advisor, seed systems and technology out-scaling expert	International Expert	120	[Home]	US\$	949.80	1,13,976
				0	[Field]	US\$		0
2	Sudhanshu Singh, (Team Leader)	Agronomist and Project Coordinator , Crop management of STRVs, precision agronomy, and mechanization	International Expert	375	[Home]	US\$	710.90	2,66,588
				0	[Field]	US\$		0
3	Martin Gummert	Postharvest and rice value chain	International Expert	38	[Home]	US\$	887.00	33,706
				18	[Field]	US\$	887.00	15,966
4	Virender Kumar	Weed management and precision agronomy	International Expert	18	[Home]	US\$	699.00	12,582
				18	[Field]	US\$	699.00	12,582
5	Manzoor Hussain Dar	Seed systems and impact assessment	International Expert	200	[Home]	US\$	552.90	1,10,580
				0	[Field]	US\$		0
6	Parvesh Kumar	GIS & RS and extrapolation domain development	International Expert	190	[Home]	US\$	551.80	1,04,842
				0	[Field]	US\$		0
7	Prakashan	Socioeconomics	International Expert	36	[Home]	US\$	551.70	19,861
				0	[Field]	US\$		0
8	Nazam Waris Zaidi	IPM and disease and pest management	National Expert	103	[Home]	US\$	305.90	31,508
				0	[Field]	US\$		0
9	Poornima Shankar	ICT in agriculture & rice knowledge management	National Expert	103	[Home]	US\$	237.30	24,442
				0	[Field]	US\$		0
10	Swati Nayak	Agricultural extension and impact evaluation & gender	National Expert	112	[Home]	US\$	237.40	26,589
				0	[Field]	US\$		0
11	Ashish Srivastava	Crop management, plant nutrition, field demonstrations, etc. (agronomy/nutrient Mgmt.)	National Expert	103	[Home]	US\$	173.50	17,871
				0	[Field]	US\$		0
12	T.C. Dhoundiyal	Project management (administrative support)	National Expert	435	[Home]	US\$	176.00	76,560
				0	[Field]	US\$		0
13	Rohit Katara	Coordination of seed multiplication, field demonstrations	National Expert	435	[Home]	US\$	96.00	41,760
				0	[Field]	US\$		0
14	TBR: Technical Expert - Coordination & Linkage development- (fixed) Assam - 1 No.	Experience in project management; data management	National/ International Expert	430	[Home]	US\$	326.25	1,40,288
				0	[Field]	US\$		0

#	Name	Area of expertise	Position assigned	Total (days)	Remuneration Rate per Day (US\$)			Total in US \$
						Currency	Amount	
15	TBR: Training and Capacity-Building Expert (L5), ISIRAC, Varanasi, 1 No.	Organization of training and capacity development	National Expert	520	[Home]	US\$	127.50	66,300
				0	[Field]	US\$		0
16	TBR: Senior Associate Scientist (Precision Agronomist) cum Resident Consultant (L8), Assam- 1 No.	Precision agronomy, crop management, mechanization	National Expert	1080	[Home]	US\$	289.60	3,12,768
				0	[Field]	US\$		0
17	TBR: Seed Expert (L5), Assam, 1 No.	Seed multiplication and out-scaling	National Expert	1080	[Home]	US\$	120.65	1,30,302
				0	[Field]	US\$		0
18	TBR: Postharvest and Rice Value Chain Expert (L6), Assam, 1 No	Postharvest practices, including rice value chain and mechanization	National Expert	1080	[Home]	US\$	164.40	1,77,550
				0	[Field]	US\$		0
19	TBR: GIS & RS Expert (L5), Assam - 1 No.	GIS & RS, extrapolation domain	National Expert	1080	[Home]	US\$	120.65	1,30,300
				0	[Field]	US\$		0
20	TBR: Soil Scientist/Agronomist /Plant Nutrition Expert (L5), Assam, 1 No.	Soil Scientist & Plant Nutrition Expert - Agronomy, Integrated crop nutrient management for rice based systems	National Expert	1080	[Home]	US\$	120.65	1,30,299
				0	[Field]	US\$		0
21	TBR: Administrative Support, Coordination, and Project Monitoring (L4), Assam, 1 No.	Project coordination and monitoring, communication, budget management	National Expert	1080	[Home]	US\$	89.70	96,876
				0	[Field]	US\$		0
22	TBR: Assistant Development Scientists for seed/ agronomy/ mechanization (L5), Assam - 2 Nos	Assistant Development Scientist - Seed systems/ agronomy / Mechanization/ post-harvest/ capacity building/ pest diseases	National Expert	2160	[Home]	US\$	120.65	2,60,604
				0	[Field]	US\$		0
23	TBR: Junior Development Scientists for seed/agronomy/mechanization (L3) - Assam - 4 Nos	Seed systems/ agronomy/mechanization/postharvest/ GIS/ capacity building	National Expert	4240	[Home]	US\$	66.50	2,81,960
				0	[Field]	US\$		0
24	TBR: ICT Expert (fixed) - Assam - 1 No	Computers and programming	National Expert	1060	[Home]	US\$	25.00	26,500
				0	[Field]	US\$		0
25	TBR: Research Technicians (L2), Assam, - 2 No	Support for data collection and other office-related work	National Expert	2120	[Home]	US\$	50.80	1,07,696
				0	[Field]	US\$		0
		TOTAL		19314				27,70,854

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(3) Breakdown of Reimbursable Expenses

Note: Information to be provided in this Form will be used to demonstrate the basis for the calculation of the Contract's ceiling amount; to calculate applicable taxes; and, if needed, to establish payments to the Consultant for possible additional services requested by the Client. **This Form will not be used as a basis for payments:**

B. Reimbursable Expenses		Unit	Unit Cost		Quantity	Amount		Remarks
Nº	Type of Reimbursable Expenses		Currency	Amount		Currency	Amount	
1	Per diem (expert from Philippines)	Day	USD	91.00	36	USD	3,276	
2	Per diem (expert from India)	Day	USD	31.25	891	USD	27,844	Travel staff from DEL/VNS to Assam & Assam to DEL/VNS
3	Per diem (Assam based staff for field visit in Assam)	Day	USD	15.50	9122	USD	1,41,391	Specific travel within Assam
4	Hotel Stay (Experts from Philippines & India)	Day	USD	93.00	927	USD	86,211	
5	Hotel Stay (Assam based staff for field visit in Assam)	Day	USD	23.25	9122	USD	2,12,087	
6	Round Trip Air ticket (International includes airport transfers)	Air ticket	USD	1280.00	10	USD	12,800	
7	Round Trip Air ticket (Domestic)	Air ticket	USD	257.00	305	USD	78,385	
8	Transport (Airport pick/drop)	Transfer	USD	31.19	1260	USD	39,299	2 Transfer at Origin & 2 at destination
9	Transport (Assam based staff for field visit in Assam)	Day	USD	34.15	9122	USD	3,11,516	
10	Transport (Local visits by Experts)	Day	USD	39.00	1104	USD	43,056	
11	General Office Supplies	Day	USD	13.75	19314	USD	2,65,568	
12	IT Support, Communication, Maintenance & other support services	Day	USD	8.75	19314	USD	1,68,998	
						Sub-Total	13,90,430	

[Name of Consultant]



International Rice Research Institute (IRRI)

Signature of Authorized Representative

Date 16 March 18

Name: ... Alvin Ponce

Title:



**TECHNICAL PROPOSAL SUBMITTED BY THE
CONSULTANT (IRRI)**
(ATTACHED SEPARATELY)