# AgResults Vietnam Emissions Reduction Pilot (AVERP) Implementer Request for Applications Transmittal Letter

Date: 31 March 2017

Dear Applicant:

On behalf of the **AgResults Vietnam Emissions Reduction Pilot (AVERP)**, the Pilot Manager (PM) SNV invites your organization to participate in a national contest through which the Project aims to test "pull" mechanism approaches to scaling up innovative technologies, tools, and approaches to reduce greenhouse gas (GHG) emissions resulting from rice cultivation. The contest will take place in Thai Binh province in the Red River Delta from 2017 – 2021.

SNV is calling for applications from potential Implementers who are established entities from the private and non-profit sectors to participate in the project. In line with the Government of Vietnam's Decision #890/QD-BNN-TT and #1898/QD-BNN-TT regarding the Agriculture and Rice restructure implementation plan, applicants shall propose innovative solutions to reducing GHG emissions while increasing yields in rice production, contributing to poverty reduction and leading the rice sector to innovative and sustainable solutions

The below RFA outlines the contest background, objectives, and rules, and includes an application form. In submitting an application, your organization consents to the RFA terms, including the application procedures and instructions.

Please note the deadlines for receipt of the application, with all required signatures and certifications, is due no later than 1700 Hrs. on **April 28, 2017**. Application documents must be submitted in one email to <a href="mailto:infoAgresults@snv.org">infoAgresults@snv.org</a>. Please indicate "Implementer RFA-AgResults Vietnam Emissions Reduction Pilot" in the subject line of the email.

The Project management team will review applications according to the criteria described herein. Up to 15 applicants whose applications best meet the selection criteria will be invited to participate in the contest.

We encourage you to submit an application and join us for a chance to win prizes and contribute to the development of a low-emissions rice sector in Vietnam. Should you have any questions or comments please direct them to <a href="mailto:infoAgresults@snv.org">infoAgresults@snv.org</a>. We appreciate your timely response to this RFA and look forward to cooperating with you on this important project.

Sincerely,

#### Tran Thu Ha

Pilot Manager Team Leader AgResults Vietnam Emissions Reduction Pilot



# **Request for Applications**

# Vietnam Emissions Reduction Pilot Implementer

# **TABLE OF CONTENT**

<u>1.</u>	AGRESULTS BACKGROUND	1
<u>2.</u>	AGRESULTS VIETNAM EMISSIONS REDUCTION PILOT (AVERP) BACKG	ROUND 3
<u>3.</u>	OUTLINE OF THE PILOT CONTEST RULES FOR IMPLEMENTERS	6
3.1	ELIGIBILITY	6
3.2	OUTLINE OF THE GENERAL CONTEST RULES	6
3.3	CONTEST RESULTS VERIFICATION	7
3.3.1	Definitions	7
3.3.2	Verification Process	9
3.4	CONTEST PRIZE SCORING AND AWARDS	9
3.4.1	Phase 1 Prize Scoring	9
3.4.2	Phase II Prize Scoring	10
3.4.3	Prize Award Process	10
3.5	CONFLICT OF INTEREST	10
3.6	DISPUTE RESOLUTIONS MECHANISM	11
<u>4.</u>	IMPLEMENTER APPLICATION FOR PARTICIPATION IN THE PILOT	11
4.1	INTERESTED ORGANIZATIONS	11
4.2	COST OF PARTICIPATION	11
4.3	CONFIDENTIALITY	12
4.4	SELECTION AND PARTICIPATION IN THE PILOT	12
4.5	RESERVATION OF RIGHTS	12
4.6	ASSOCIATIONS, JOINT VENTURES OR CONSORTIUMS FOR PILOT PURPOSES	12
<u>5.</u>	IMPLEMENTER AGREEMENT TERMS AND CONDITIONS	13
5.1	OWNERSHIP CHANGE	13
5.2	AUDIT RIGHTS	13
5.3	COMPLIANCE WITH APPLICABLE LAWS	13
5.4	TAXES	13
5.5	INTEGRITY AND PROHIBITION OF TERRORISM FUNDING	13
5.6	GENERAL RELEASE	13
5.7	LIMITATION OF LIABILITY	14

INA	27	
<u> </u>	NEX2: ANTICORRUPTION COMPLIANCE CERTIFICATION	25
<u>INA</u>	NEX1: TECHNOLOGICAL CONCEPT APPLICATION FORM	19
6.2	APPLICATION SCORING	18
6.1	APPLICATION INSTRUCTIONS	17
<u>6.</u>	APPLICATION INSTRUCTIONS AND EVALUATION	17
5.12	RESERVATIONS OF RIGHTS	15
5.11	Use of Name	15
5.10	TERMINATION	15
5.9	DISPUTE RESOLUTION AND WAIVER OF JURY TRIAL	14
5.8	CONSTRUCTION AND GOVERNING LAW	14

This is a Request for Applications ("RFA") from qualified and eligible organizations to participate in the AgResults Vietnam Emissions Reduction Pilot (AVERP) pilot ("Pilot"). The Pilot is a five year project designed to to identify, through a prize contest, novel approaches and technologies for reducing greenhouse gas ("GHG") emissions and increasing yields in rice cultivation, and to scale the most effective approaches to thousands of smallholder farmers. The Pilot operates with a results-driven pull mechanism that incentivizes the participating implementers to develop and implement farming and/or crop management practices and technologies that increase rice yields and reduce GHG emissions.

# 1. AgResults Background

The AgResults initiative ("AgResults") is a US\$118 million multilateral-initiative financed jointly by the governments of Australia, Canada, the United Kingdom, the United States, and the Bill & Melinda Gates Foundation. AgResults seeks to increase private sector investment in food security and agriculture globally. AgResults establishes "pull mechanisms" - ex-post economic incentives or grants that are provided to businesses or organizations in areas where private sector investment is virtually absent due to market uncertainties. In doing so, AgResults goes beyond traditional aid "push mechanisms" that provide funding, technical assistance, or other inputs with the hope of creating development impacts. Instead, AgResults-financed pull mechanisms define a development problem and pay only for development outcomes that are achieved.

The objectives of AgResults are to:

- (1) Overcome market failures impeding agricultural innovations by offering results-based economic incentives (known as "pull" mechanisms) to competing private actors for the adoption of new agricultural technologies; and to
- (2) **Test the effectiveness and efficiency of pull financing** in comparison with traditional approaches to the promotion and adoption of innovative agricultural technologies.

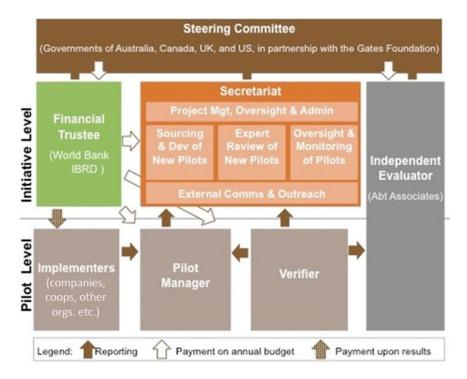
Several different bodies are involved in implementing AgResults:

- The Steering Committee: Donor organization representatives (Australia, Canada, the United Kingdom, the United States, the Bill & Melinda Gates Foundation) make strategic decisions and appoint other organizations participating in the AgResults initiative.
- Financial Trustee: The International Bank for Reconstruction and Development serves as Trustee
  for the AgResults initiative, manages donor contributions in a trust fund, makes disbursement of
  the prizes or grants to the Implementers in accordance with the respective pilot terms and
  contracts with the AgResults Secretariat and the Monitoring & Evaluation Consultants for the
  AgResults initiative.
- **The Secretariat**: Deloitte Consulting is the current AgResults Secretariat and during its appointment is responsible for designing new pilot projects as well as oversight, monitoring, and coordination of implementation of the approved AgResults pilot projects.



- Pilot Manager: The Pilot Manager team is responsible for implementation of the pilot and is
  accountable and reports to the Secretariat. The Pilot Manager plays a neutral, facilitative role,
  manages and oversees all Pilot activities in country to conclusion. In Vietnam, the SNV
  Netherlands Development Organisation (SNV) is the Pilot Manager for the AVERP pilot's activities
  and efforts in coordination with the Secretariat.
- **Implementers**: Implementers will include a wide range of established entities from private, public and non-profit sectors who participate in the pilot program, with the aim to achieve the pilot's objectives and receive a cash payment if that result is verified.
- Verifiers: The Pilot Verifier verifies, determines and certifies whether Implementers have achieved the results they report and that are required for the payment of the grants. The Secretariat contracts the Verifier but the Pilot Manager oversees all verification work. In Vietnam, Applied GeoSolutions (AGS) has been engaged by the Secretariat to act as the Pilot Verifier for the AVERP pilot.
- Advisory Council: This body is comprised of representatives from key stakeholders, relevant and
  diverse disciplined associations and institutions, technical bodies and relevant stakeholders from
  the Government of Viet Nam. The Advisory Council is not a decision making body but rather
  provides advice on implementing the pilot to the Steering Committee, Secretariat and Pilot
  Manager. See Section II below for additional details.
- **Independent Evaluator**: Abt Associates will measure AgResults impacts and compare them to traditional, "push mechanism" development approaches.

The relationship among these parties is illustrated below:





# 2. AgResults Vietnam Emissions Reduction Pilot (AVERP) Background

As an agricultural-based economy, Vietnam relies on rice production and exports to support jobs and livelihoods for more than 70% of the population. According to the United National Framework Convention on Climate Change, the agriculture sector accounts for 33% of total non-carbon dioxide GHG emissions, of which rice cultivation accounts for approximately 50%. To address this challenge, the AgResults has designed the Pilot to identify, through a prize contest, novel approaches and technologies for reducing GHG emissions and increasing yields in rice cultivation and to scale the most effective approaches to thousands of smallholder farmers.

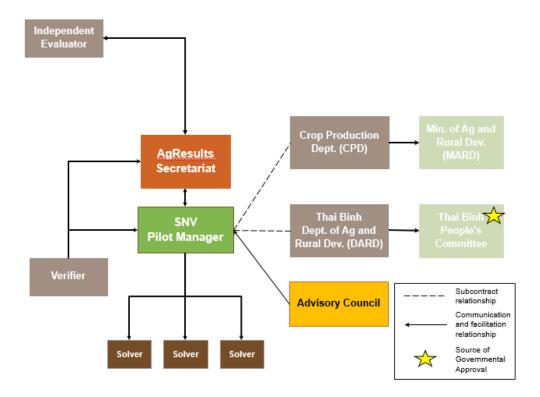
As the vast majority of the GHG emissions occur at the land preparation and cultivation stages of rice farming, the Pilot is focused exclusively on solutions that effectively reduce emissions at these stages. The Pilot works to target smallholder farmers, input providers, aggregators, universities and research institutions, cooperatives, non-governmental organizations, and development agencies who have the potential to have significant impact on GHG reductions at these stages.

The Pilot aims to achieve the following outcomes:

- Reach up to 75,000 farm households in the Red River Delta
- Reduce up to 375,000 tons of Carbon Dioxide equivalents (tCO2e)
- Provide cost savings of around 15% to SHFs as a result of efficient input use
- Define and recommend the field tested and international-level verified low carbon rice farming technologies for wide-uptake in Vietnam

The overall structure of the Pilot is illustrated below:





The Pilot Implementers' contest is organized into two phases:

Phase I consists of two test growing seasons and will tentatively start during the Summer growing season of 2017 and the Spring growing season of 2018. Selected Implementers (capped at a maximum of 15) will test their respective rice yield increasing/GHG emission reducing farming management practices, methodologies, solutions, approaches and/or technologies (for the purposes of this document, collectively referred to as "technology") on a contiguous plot of at least 0.15 ha in area during the two harvest periods. Implementers may conduct either one technology test per season (differentiated technologies depending on the season), or up to two technology tests that encompass both seasons. Results in terms of yield and GHG emissions will be verified through field-based direct measurement by the Pilot Verifier, Applied GeoSolutions (AGS), and will be co-monitored by the Pilot Manager (SNV) and the Thai Binh Provincial Department of Agriculture and Rural Development ("DARD"). The Implementers that develop and demonstrate effective technologies that reduce GHG emissions and increase yields in accordance with the contest terms requirements will receive interim and milestone prizes during Phase I according to the schedule below, and will be invited to participate in Phase II. The Pilot Verifier will verify Phase I Implementer-reported yield performance of their technology against Verifier-controlled rice production plots using baseline production methods derived from the results of the baseline survey, included as a report in Annex 3. Comparing all Implementers against a Verifier-run baseline plot sets fairness in verification and measurement. For Phase I, the interim prize pool, which is awarded based on a calculation of GHG reduction (60% weight) and yield increase (40% weight) after the first Phase I cropping season, is based on the number of selected Implementers: the minimum pool is \$35,000, and for each additional accepted Implementer above seven, the prize pool increases by \$5,000. If AgResults accepts the maximum number of Implementers (15) for Phase I, then the pool will be set at its maximum possible amount of \$75,000.



Phase II consists of four consecutive growing seasons and will tentatively start in the Spring growing season of 2019 and finish in the Summer growing season of 2020. For Phase II, rice cultivation technology(ies) will be judged on four metrics: highest number of small holder farmers reached (metric defined in section 3.3.1), repeated use of the introduced technology by smallholder farmers, total percent GHG emissions reduction, and percent yield increase. Prizes will be awarded based on a calculation of those metrics (See below graphic). At the end of each of the four growing seasons of Phase II, interim prizes of \$500,000 total for each season will be distributed proportionally to Implementer results that exceed their pre-Phase II baselines by defined percentages: 20% based on GHG reduction, 20% for yield increases, 40% for SHF uptake, and 20% for repeat use of technology (see below graphic). However, after the first growing season of Phase II, the percentage breakdown for interim prizes will be calculated using GHG reduction (30%), yield increases (30%), and SHFs reached (40%), as there will be no repeat use during the first Phase II crop season. Following the end of the sixth season, a grand prize will be awarded, anticipated in 2021, to the top three Implementers in accordance with the contest rules and regulations. The Verifier will validate the accuracy of the Implementer-reported results and identify issues, suspicious activity or fraud in what Implementer organizations report to determine the veracity of the reported numbers, including that of reported number of farmers are using the Implementer's technology, number of farmers worked with, number of repeat use of the technology, and farm level input data for calculation of prize payments. At this time, Phase II verification is anticipated to be done using a suite of technologies for GHG and yield estimation and measurement, potentially including but not limited to: remote sensing using satellite and other tools; the International Rice Research Institute-developed ORYZA model for plot yield estimation; and field verification of farmer inputs. GHG estimation will likely be conducted using the DeNitrification Decomposition Model (DNDC), a process-based soil biogeochemical model, to determine the amount of GHG emissions released from a rice crop. GHG emissions will be quantified as a product of all stages of the crop cycle from land preparation through crop harvest. Further details on verification can be found in section 3.3.

The full prize structure is outlined in the graphic below, prize payment will be subject to the Implementers compliance with the contest rules:



#### **TEST**

# Phase I (1.5 Years): Implementers Test Solutions on **Controlled Pilots**

#### Interim Prize (Growing season 1):

implementers that surpass their implementer-specific baselines for GHG emissions reduction (60% weight), and yields increase (40% weight).

SHARE AN INTERIM PRIZE BETWEEN

US \$35,000 - 75,000

PROPORTIONAL TO THEIR RESULTS

#### Milestone Prize:

At the end of growing season 2, implementers with the highest combined GHG emissions reductions (60% weight), and yield increases (40% weight) receive a prize:

1st Place: \_\_\_ US \$50,000

\_\_ 2<sup>nd</sup> Place: \_\_\_ US \$30,000

\_\_\_ 3rd Place: \_\_\_ US \$20,000

# **SCALE**

#### Phase II (2.5 Years): Successful Solutions are Scaled Up

#### Interim Prize:

In growing season 3, implementers that surpass their implementer-specific baselines for GHG emissions reduction (30% weight), yield increase (30% weight), and number of smallholder farmers reached (40% weight).

In growing seasons 4 and 5 implementers that surpass their implementer-specific baselines for GHG emissions reduction (20% weight), yield increase (20% weight), number of smallholder farmers reached (40% weight), and repeat use of tool/product (20% weight).

> SHARE A PRIZE OF US \$500,000

PROPORTIONAL TO THEIR RESULTS

#### **Grand Prize:**

At the end of growing season 6, the three implementers with the highest number of smallholder farmers reached (40% weight), repeated use of solutions (20% weight), total GHG emissions reduction (20% weight), and average yield percentage increased (20% weight) receive a prize:

1st Place: \_ US \$750,000 \_ 2nd Place: \_\_

3rd Place: \_

US \$400,000 US \$200,000

**TOTAL PRIZES AVAILABLE: US \$2,985,000 - 3,355,000** 

# 3. Outline of the Pilot Contest Rules for Implementers

#### 3.1 **Eligibility**

The application for the contest is open to any and all private and non-profit organizations, with the exception of organizations with a conflict of interest as detailed below in section 3.5. Public sector entities (i.e. government-funded research institutions, universities, etc.) may apply, but only as co-applicants in partnership with a lead private or non-profit organization. Implementers are encouraged to form partnerships between private sector and public sector actors to leverage competencies. Partnership details are outlined in section 4.5.

Eligible applicants should be currently operating in Thai Binh province, or able to do so immediately, and should be able to implement an innovative technology to reduce GHG from rice production while also increasing yields.

Applicants must commit to completing both Phase I cropping cycles for testing their proposed technology and, if selected, upscaling their technology for the four Phase II cropping cycles.

#### 3.2 **Outline of the General Contest Rules**

- The geographical area of the Contest is in Thai Binh province of Vietnam.
- The lead applicant and all co-applicants (if any) must be legally established entities in Vietnam.
- Implementers with multiple branches or who are the majority shareholder of another company are eligible to apply only once.
- Implementers selected based on applications for this RFA must sign Implementer Agreement with the Pilot Manager, SNV. Terms and conditions will be similar to those found in this RFA.



- Selected Implementers must self-finance their two Phase I crops and four Phase II crops, if selected for one or both phases.
- Up to a maximum total of 15 Implementers will be selected to participate in Phase I.
- Each Implementer may propose up to a maximum of 2 technologies for Phase I.
- Selected Implementers must keep a daily record of all farming practices (irrigation, water level in paddy, nutrition application, and pest management) following instructions to be provided by the Pilot Verifier. Minor deviations from/adjustments to the proposed technology are acceptable during implementation provided the Implementer documents those changes in their crop management practices.
- Only those technologies that are tested and verified in Phase I will be selected for uptake in Phase II.
- All Phase I demonstration sites must be a single contiguous plot measuring at least 0.15 ha with all the edges/sides of the site greater than or equal to 30 meters.
- If there are fewer than 5 Implementers selected into Phase II, there will only be a 1<sup>st</sup> and 2<sup>nd</sup> prize offered. If there are fewer than 3 Implementers selected at any stages; the contest may be delayed or cancelled.
- Implementers are required to follow and implement their proposed technology for each crop. If fraud or collusion are discovered, the Implementer's participation in the contest may be cancelled at the sole discretion of the Pilot Manager and the Secretariat.
- For the purposes of verification, implementers shall accept an AgResults baseline derived by the Verifier from the research findings from the Performance Baseline Survey Report, and against which implementers' progress towards metrics will be measured by the Verifier.
- Implementers acknowledge that the baseline yield and GHG emissions will be set based on a set
  of control sites managed by the Verifier where farmers will implement conventional farming
  practices as documented by the performance baseline survey report. The rice variety for the
  control plots will be determined by the Verifier based on the baseline survey results. The variety
  will be disclosed to Implementers prior to the signing of the Implementer Agreements.
- AgResults reserves the right to reject the use of low-quality rice varieties that deviate significantly
  in quality from conventional varieties. If the Implementer proposes any varieties outside of the
  acceptable standard of the Pilot, AgResults will require the Implementer to select another variety.
- Implementers are required to disclose prize sharing agreements with farmers and other key stakeholders. Implementers must follow commitments to use any received monetary prize as proposed in their application (see Annex 1 for specific questions related to prize use).

# 3.3 Contest Results Verification

#### 3.3.1 Definitions

**Technology** – The Pilot defines the term technology to be a single or a set of farming management practices, methodologies, solutions, approaches and/or technologies that will be used for the Pilot contest and that are (a) distinct from baseline management practices as outlined in Annex 3 and (b) designed to reduce greenhouse gas emissions released from a rice crop and increase rice crop yields. Technologies must be described in terms of how the technology is different from baseline management and how they will reduce greenhouse gases.

**Control plot** – In phase 1, control plots are defined as field measurement plots where rice production management follows the performance baseline management. In Phase II, control plots will be defined as having the same biophysical conditions (soils, daily weather) as each Phase II site and having performance



baseline management (counter factual sites used to model changes in greenhouse gas emissions and yields). These control plots will be used as benchmarks against which each Implementer technology will be evaluated for greenhouse gas reductions and yield increases.

Greenhouse gas emissions (GHG) metric – Methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O) are the greenhouse gases that the Pilot will use as the indicator and metric for prize calculations. The GHG emission reduction metric will be calculated based on a crop season basis as % reduction relative to control plot. The GHG metric will be calculated in Carbon Dioxide Equivalents (CO<sub>2eq)</sub> using the United Nations Intergovernmental Panel on Climate Change (IPCC) the Fifth Assessment Report (AR5) Global Warming Potential Values (GWP) 100-year factors for CH<sub>4</sub> (34) and N<sub>2</sub>O (298). The Pilot is designed to cover 6 rice crop seasons, starting with two crop seasons in Phase 1 and followed by 4 crop seasons in Phase II. For the Pilot, a crop season (c = 1 to 6) is defined to start with field preparations for transplanting and end at harvest. The following formula describes how the GHG metric will be calculated:

$$GHGmetric_{S_c} = \frac{GHGcontrol_{S_c} - GHG_{S_c}}{GHGcontrol_{S_c}}$$

Where

 $\mathit{GHG}_{S_c} = \mathit{GHG}$  emissions for Solver S technology and crop season c.

and

 $GHGcontrol_{S_c} = GHG$  emissions for Solver S control plot and crop season c.

**Yield metric** – the Pilot yield metric is defined as a percent yield increase relative to the control plot yields corresponding to each cropping season. The following formula describes how the yield metric will be calculated:

$$Yieldmetric_{S_c} = \frac{Yield_{S_c} - Yieldcontrol_{S_c}}{Yieldcontrol_{S_c}}$$

where

 $Yield_{S_c} = Yield \ for \ Solver \ S \ technology \ and \ crop \ season \ c$ 

and

 $Yield control_{S_c} = Yield \ for \ Solver \ S \ control \ plot \ and \ crop \ season \ c.$ 

**Small Holder Farmers (SHF) reached metric** – In Phase II, this metric will be calculated for each Implementer (S) for each crop season (c) as a fraction of total number of farmers $^1$  reached for each Implementer relative to total number of farmers reached by all Implementers in Phase II. A small holder farmer is considered "reached "if they successfully implement the Implementer's technology for at least one crop season. An Implementer's SHF metric will be calculated by summing up the total number of farmers that successfully used the Implementer technology divided by the total number of small holder farmers that successfully used all the technologies for all Implementers in a cropping season (c) for the Phase II interim prizes and across all crop cycles c = 3, d = 3,

$$SHFmetric_{S_c} = \frac{\sum SHF_{S_c}}{\sum SHF_{All \ S_c}}$$

where

<sup>&</sup>lt;sup>1</sup> SHF includes contract labor as long as those individuals would be farming rice in the absence of AVERP.



$$\sum \mathit{SHF}_{\mathit{S_c}} = \mathit{Number\ of\ Small\ Holder\ Farmers\ reached\ by\ Solver\ S\ in\ crop\ season\ c}$$

and

$$\sum \mathit{SHF}_{\mathit{S_c}} = \mathit{Number\ of\ Small\ Holder\ Farmers\ reached\ by\ ALL\ Solvers\ in\ crop\ season\ c}.$$

Repeat Use of the Technology (RUT) metric - Repeat use of a technology is defined as the use of a technology by famers in a subsequent cropping season following initial use of that technology in Phase II by the same farmer. Therefore, this metric cannot be calculated for crop season 3. This metric will be calculated for crop cycles c = 4, 5 and 6 (starting in the  $2^{nd}$  cropping season on Phase II). An Implementer's repeat of the technology metric will be calculated by summing up the total number of farmers that repeat the use the Implementer technology divided by the total number of repeat use of technologies for all Implementers in a cropping season (c) for the Phase II interim prizes and across all crop cycles c = 4, 5 and 6 for the Grand Prize calculations. The following formula describes how the metric will be calculated:

$$RUTmetric_{S_c} = \frac{\sum RUT_{S_c}}{\sum RUT_{All \ S_c}}$$

Where

$$\sum_{s} RUT_{s_s}$$

 $\sum_{s} RUT_{S_c}$ = Number of Farmers Repeat Use of Technology reached by Solver S in crop season(s) c And

$$\sum SHF_{S_{c}}$$

Number of Farmers Repeat Use of Technologies by ALL Solvers in crop season(s) c

# 3.3.2 Verification Process

Phase I verification involves direct measurement of yields and GHG emissions for each Implementer. Rice yields will be measured directly using random sampling of 5 points measuring an area of 4m<sup>2</sup> within each field. The verification team will use static chamber based methods to quantify methane (CH<sub>4</sub>) and nitrous oxide (N2O) emissions for all Implementer fields in Phase I. Changes in soil carbon will not be tracked under the Pilot due to the difficulty in measuring changes in soil carbon over a cropping season and annual basis, as well as the possibility for subsequent reversals.

Phase I field data measurements of GHG emissions, rice yields and crop production practices will be used to calibrate, validate and quantify model uncertainties for Phase II verification models. The proposed Phase II verification relies on modeling of GHG emissions using DNDC and ORYZA models. Remote sensing will be used to support these models and to monitor application of Implementers' technologies. Implementers will be informed of the final verification process well before the first Phase II cropping season begins.

#### 3.4 **Contest Prize Scoring and Awards**

# 3.4.1 Phase 1 Prize Scoring

Implementers will be scored in Phase 1 based on their *GHGmetric* and *Yieldmetric* values as follows:

$$Score_{S_c} = 0.6 * GHGmetric_{S_c} + 0.4 * Yieldmetric_{S_c}$$



where

 $Score_{S_c} = Solver\ S\ score\ for\ cropping\ season\ c\ and\ for\ Phase\ 1\ Interim\ and\ Milestone\ prizes.$ 

Statistical uncertainty in each metric will be used to calculate total uncertainty in Implementer's scores. A 90% confidence interval will be used for uncertainty modelling; if at that Interval there is overlap of Implementer's scores, then proportional prizes will be determined.

# 3.4.2 Phase II Prize Scoring

Implementers will be scored in Phase II based on their *GHGmetric Yieldmetric SHFmetric* and *RUTmetric* values as follows:

$$Score_{S_3} = 0.3 * GHGmetric_{S_3} + 0.3 * Yieldmetric_{S_3} + 0.4 SHFmetric_{S_3}$$

And

$$Score_{S_c} = 0.2*GHGmetric_{S_c} + 0.2*Yieldmetric_{S_c} + 0.4~SHFmetric_{S_c} \\ + 0.2*RUTmetric_{S_c}$$

where

 $Score_{S_3} = Solver's \ score \ for \ crop \ season \ 3 \ (first \ crop \ season \ of \ Phase \ 2)$ 

and

$$Score_{S_c} = Solver's$$
 score for crop season c (crop seasons 4, 5 and 6 and for all Phase 2 crop seasons for the Grand Prize scoring)

Statistical uncertainty in each metric will be used to calculate total uncertainty in Implementer's scores. A 90% confidence interval will be used for uncertainty modelling; if at that Interval there is overlap of Implementer's scores, then proportional prizes will be determined.

# 3.4.3 Prize Award Process

At the end of each crop in phase I, within approximately 45-60 days since the date of harvest, the Verifier will submit the full verification report of GHG emissions and yield increase from each Implementer's experiments to the Pilot Manager and the Secretariat for review and approval. Upon approval by the Secretariat, the Pilot Manager will notify the winners and make formal announcement via public media (email, website) to Implementers whom were verified as prize winners in accordance with their results, as verified by the Verifier. Winners and all participating Implementers will be invited to a formal Prize Award ceremony in Thai Binh. Prize will be transferred to the winning Implementer's registered bank account. Payment of any prize is subject to the Implementer's compliance with the Pilot contest rules, as set forth in the agreement signed by the Implementers selected to participate in the Pilot. Phase II award processes will be determined at or prior to the conclusion of Phase I.

Any applicable taxes that may be levied in connection with any prize award in any jurisdiction will be the responsibility of the Implementer.

#### 3.5 Conflict of Interest

The AgResults Secretariat, Pilot Manager, Pilot Verifier and their staff members, members of the Pilot Advisory Council, Crop Production Department of Ministry of Agriculture and Rural Development, Independent Evaluator and Provincial Government of Thai Binh, Thai Binh Extension Centre and their respective personnel, affiliates and immediate family members, are not eligible to participate in the Pilot without prior written approval of the AgResults Steering Committee. None of the above-mentioned



entities/personnel are eligible to provide contest-related technical support or consultancy to Implementer applicants and selected Implementers.

All current or potential conflict of interests will be evaluated by the Pilot Manager and the Secretariat to determine applicant eligibility. Applicants shall immediately disclose to the Pilot Manager in writing any current or potential conflict of interest with respect to their participation in the Pilot. Failure to do so could result in rejection of applications or early termination of contracts.

# 3.6 Dispute Resolutions Mechanism

An informal Pilot dispute mechanism as specified below will be put in place and is intended to Implementers a process in which to report and resolve possible adverse or unfair practices or to dispute findings. The Pilot Manager is responsible for facilitating the dispute mechanism process, with oversight from the AgResults Secretariat, except in the case when the Pilot Manager is a part of the dispute, which in such case the AgResults Secretariat will be responsible for facilitating the dispute mechanism process.

- 1) If an Implementer has evidence or believes that another Implementer is behaving in a way that contradicts the rules of the Pilot, or if the Implementer disagrees with findings of the verification process, the Implementer should:
  - Submit an email to the Pilot Manager at <u>infoAgresults@snv.org</u>;
  - Detail in writing what is being challenged and submit documentary evidence, if any, to support their claim.
- 2) If the Implementer has evidence or believes that the Pilot Manager is behaving in a way that contradicts the rules of the Pilot; the Implementer can:
  - Submit an email to the AgResults Secretariat info@agresults.org;
  - Detail in writing the possible issue. The email should list the practices they believe are contradicting the rules, along with dates and any documentary evidence, if any.

Upon receipt of the information from the Implementer, the receiving party will acknowledge receipt and respond to the Implementer as soon as practical, about next steps. Any unresolved issues may be escalated for the decision to the Secretariat. The AgResults Secretariat's decision will be final and binding.

# 4. Implementer Application for Participation in the Pilot

# 4.1 Interested Organizations

Eligible organizations interested in participating in the Pilot as Implementers must complete and submit to the Pilot Manager the Technological Application Form attached hereto as Annex1, as well as the Anticorruption Compliance Certification in Annex 2. A review panel consisting of members of the Secretariat, the Pilot Manager, the Verifier, with input as appropriate from the Project Steering Unit and Project Management Unit of Thai Binh; the Crop Production Department of MARD, and the Advisory Council, (collectively, the "Review Panel"), will review the applications and will then select maximum of 15 organizations to participate in the Pilot. The selected organizations will be provided an Implementer Agreement to review and sign before they can participate in the Pilot.

# 4.2 Cost of Participation

Applying organizations will bear all their costs associated with applying for and participation in the Pilot.



# 4.3 Confidentiality

Non-public information in the applications submitted by the interested organizations shall be marked as proprietary or confidential. Such information will be treated as confidential and may be only shared with the Review Panel and with the AgResults Steering Committee.

# 4.4 Selection and Participation in the Pilot

The selection and number of Implementers selected for the participation in the Pilot is at the Secretariat's discretion, based on recommendation provided by the Pilot Manager in consultation with the Pilot Advisory Council. By submitting an application for the Pilot, the applicant agrees to be bound by the decisions of AgResults Secretariat about your eligibility to participate. The AgResults Secretariat reserves the right to select the organizations it determines, at its discretion, most appropriate for the Pilot.

Selected Implementers will be expected to sign a contractual agreement (Implementer Agreement) to confirm their participation in the Pilot and agreement with the contest rules.

The Secretariat reserves the right to terminate participation of any selected Implementer if the Secretariat, in its sole discretion, determines that the Implementer;

- (i) Does not meet the Pilot eligibility criteria;
- (ii) Has been involved in any activity that, in AgResults Secretariat's discretion, could affect the integrity of the Pilot; or
- (iii) Has been non-compliant with the Implementer Agreement terms and failed to remedy its non-compliance when requested by the Pilot Manager or the Secretariat.

# 4.5 Reservation of Rights

This RFA does not commit the Pilot Manager or AgResults to award a prize to any applicant. The Pilot Manager reserves the right to cancel the Implementer's participation in the selection process, the contest and/ or any prizes at any time if any fraud, collusion or conflict of interest are found.

The Pilot Manager may require any applicant to participate in discussions related to application submission and to submit such technical or other revisions of their applications that may result from such discussions. The applicant expressly waives any and all rights and remedies under any civil action arising from or related to the submittal of an application.

The applicant agrees that nothing in this RFA grants the Implementer a right or license to use the name or any trademark or service mark of AgResults or any AgResults entities, including without limitation, of the Secretariat or the Pilot Manager, in any public material, advertisement, press release or in the media (including on the internet), without prior written approval.

# 4.6 Associations, Joint Ventures or Consortiums for Pilot Purposes

Organizations may formally associate or form consortia or joint ventures for the purpose of participating in the Pilot as an Implementer. Implementers may only participate in the Pilot independently or in one association, joint venture or consortium for the purposes of the Pilot, and cannot concurrently apply as a member of other participating groups. The association, joint venture or consortium members shall designate a lead member who will be authorized to bind the association, joint venture or consortium and who shall submit the Implementer application on their behalf and together with duly signed and notarized authorization (submitted in hard copy) granted by all other members authorizing the lead organization to represent them in all matters related to the Pilot, including signature of the Implementer Agreement and



receipt of any prize. The named lead member will be the sole point of contact with respect to any communications or actions by or concerning AgResults entities, including the Pilot Manager, Secretariat, Steering Committee, Trustee and Verifier organization(s). The composition or the constitution of the association, joint venture, or consortium shall not be altered without the prior consent of the AgResults Secretariat.

# 5. Implementer Agreement Terms and Conditions

Once selected to participate in the Pilot and upon signing the Pilot Implementer Agreement, an Implementer will be obligated to abide by, among other terms, the following Terms and Conditions, which will be reflected in the Pilot Implementer Agreement ("Agreement", as referenced below):

# 5.1 Ownership Change

The Implementer agrees to notify the Pilot Manager of any change in control of the Implementer within ten (10) days of such change. For the purpose of this provision, "control" means (a) the legal or beneficial ownership of the Implementer, including without limitation, as a result of acquisition, merger or sale; or (b) the power to direct or cause the direction of the management and policies of an entity, whether through the ownership of voting securities, through membership, by contract or otherwise.

# 5.2 Audit Rights

The Implementer shall maintain, during the term of the Implementer Agreement and for three years after its termination or expiration, complete records of all data supporting the reported contest results, and shall make such records available to AgResults Pilot Manager, the Secretariat, or any of their representatives or agents for review and audit upon request.

# 5.3 Compliance with Applicable Laws

The Implementer must ensure compliance with any and all applicable laws and regulations in connection with their Pilot activities. This requirement includes, without limitation, the Implementer's obligation to comply with Vietnamese laws concerning the policies and practices of the Convention on the Rights of the Child ("Convention"), including the Child Right's Act of 2016. The Implementer agrees not to use AgResults funds in any practice inconsistent with the benefits set forth in the Convention or the Act.

#### 5.4 Taxes

The Implementer will be solely responsible for paying any taxes or fees in accordance with the applicable laws due in connection with Implementers' activities in connection with the Pilot and the receipt of any prizes.

# 5.5 Integrity and Prohibition of Terrorism Funding

The Implementer may not engage in any fraudulent, corrupt, collusive, deceptive or other similarly unacceptable practices in connection with the Pilot. Implementers must also ensure that no funds received from AgResults are used, directly or indirectly, to provide support to individuals or entities associated with terrorism. Implementer represents and warrants its compliance with the obligations in this paragraph, including compliance with the U.S. Foreign Corrupt Practices Act.

#### 5.6 General Release

By entering the Pilot, the Implementer releases and discharges the Pilot Manager and each of the entities associated with AgResults (including, without limitation, the Secretariat, Verifier, and the Steering



Committee members) from any liability whatsoever in connection with the Implementer's participation in the Pilot, including, without limitation, legal claims, costs, injuries, losses or damages, demands or actions of any kind (including, without limitation: personal injuries; death; damage to, loss or destruction of property; rights of publicity or privacy; and defamation or portrayal in a false light).

The Pilot Manager is not responsible for typographical, printing or other inadvertent errors in these or in any materials relating to the Pilot.

Additionally, the Implementer agrees to indemnify the Pilot Manager and any entities associated with AgResults from any and all losses, damages, costs, expenses, rights, claims, demands and actions (including attorney's fees and expenses for litigation and settlement), which may be brought against any one or more of them by anyone claiming to have suffered loss or damage as a result of Implementer's participation in the Pilot. The provisions of this Paragraph shall survive the expiration or termination of the Agreement.

# 5.7 Limitation of Liability

The Implementer agrees that: (1) any and all disputes, claims, and causes of action arising out of or in connection with the Pilot, including without limitation concerning any payments of funds pursuant to this Agreement, shall be resolved individually without resort to any form of class action; (2) liability of the Pilot Manager and any of the entities associated with AgResults and their personnel, individually or collectively, for any claims, actions, damages, liabilities, costs, expenses or losses in any way arising out of or in relation to the Pilot shall in no event exceed in aggregate USD \$10,000 (ten thousand U.S. dollars); and (3) in no event shall either party or its personnel be liable for indirect, punitive, incidental, special, exemplary or consequential damages (including, without limitation, lost profits and opportunity costs). The provisions of this Paragraph shall apply regardless of the form of action, damage, claim, liability, cost, expense, or loss, whether in contract, statute, tort (including without limitation, negligence), or otherwise. The provisions of this Paragraph shall survive the expiration or termination of the Agreement.

# 5.8 Construction and Governing Law

All issues and questions concerning the construction, validity, interpretation and enforceability of these terms shall be governed by, and construed in accordance with the laws of the State of New York, USA (without giving effect to the choice of law principles thereof). The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision. In the event that any provision is determined to be invalid or otherwise unenforceable or illegal, the terms and conditions shall otherwise remain in effect and be construed in accordance with their terms, and the unenforceable provision shall be deemed modified to the extent necessary to render it enforceable, preserving to the fullest extent permissible the intent of the original provision set forth in the Agreement. The provisions of this Paragraph shall survive the expiration or termination of the Agreement.

# 5.9 Dispute Resolution and Waiver of Jury Trial

Any dispute between the Implementer and the Pilot Manager relating to the interpretation or application of the Agreement, the contest terms, or otherwise in connection with the Pilot, unless amicably settled through the informal dispute mechanism, shall be finally settled by a binding arbitration. The arbitration shall be conducted in accordance with the modalities to be agreed upon by the parties to the dispute, or in the absence of such agreement, in accordance with the Rules of Arbitration of the International Chamber of Commerce (ICC Emergency Arbitrator Provisions shall not apply). The arbitration shall take place in location(s) agreed-upon by the parties, or in the absence of such agreement, in New York, USA. The arbitrator(s) shall have no power to award damages inconsistent with this Agreement, including the



limitation on liability provisions contained herein. All aspects of the arbitration shall be treated as confidential. Each party shall bear its own costs of the arbitration; however, the parties shall share the fees and expenses of the arbitrators equally. The parties shall accept the arbitral award as final and binding. The provisions of this Paragraph shall survive the expiration or termination of the Agreement.

Each of the parties hereby irrevocably waives, to the fullest extent permitted by law, all right to trial by jury in any action, proceeding or counterclaim (whether in contract, statute, tort (including, without limitation, negligence, or otherwise) relating to the Agreement.

# 5.10 Termination

Either party may terminate the Agreement, with or without cause, by giving ten (10) days' prior written notice to the other party. In the event of a termination for cause, the breaching party shall have the right to cure the breach within the notice period. The Pilot Manager may terminate the Agreement immediately upon written notice to the Implementer if the Pilot Manager determines that the Implementer has engaged in corrupt, fraudulent, collusive or coercive practices in the performance of the Agreement, or if the performance of the Agreement would be in conflict with law, or independence or professional rules.

#### 5.11 Use of Name

The Implementer consents to the unlimited use by the Secretariat and the Pilot Manager, in connection with the Pilot, of Implementer's name, information about the Implementer's contest results, and any related images, including in any media or format now known or hereafter invented, in any and all locations worldwide, without any payment to or further approval from the Implementer. Implementer hereby grants to the Secretariat and the Pilot Manager the right to include Implementer's company name or trade name and general information about the Implementer's company on the AgResults website and in materials related to the Pilot's analysis and promotion. The Implementer agrees that this consent is perpetual and cannot be revoked. Other than these uses, the Implementer is not granting Secretariat or the Pilot Manager any rights to its trademarks.

# 5.12 Reservations of Rights

The Pilot Manager reserves the right to correct clerical or typographical errors in any AgResults materials, including the Pilot contest terms. The Pilot Manager also reserves the right to unilaterally and without liability to Implementers amend the terms of the contest during the Agreement period. The Pilot Manager would not issue such amendments lightly and only if it believes that it is necessary or helpful, for example, in order to clarify any terms or to accomplish the contest's objective. Implementers should note that any amendments of the contest rules and payment amounts would be only made based on specific direction from the AgResults Steering Committee and subject to approval by the majority of the Steering Committee's voting members.

By continuing its participation in the Agreement after ten (10) business days following the issuance of the amendment, the Implementer will be deemed to have accepted any such amendment. If any Implementer does not wish to continue to participate in the Agreement pursuant to the terms, as amended, such Implementer may terminate its participation by giving a written notice to the Pilot Manager at <a href="mailto:infoAgresults@snv.org">infoAgresults@snv.org</a>. This is the Implementer's sole right and remedy.

The Pilot Manager reserves the right to cancel or suspend unilaterally the Agreement upon written notice to Implementer, without any liability, should any causes beyond the reasonable control of the Pilot Manager delay or adversely affect the administration, management or proper completion of the Pilot.



The Pilot Manager reserves the right to terminate participation of, and to disqualify from any prize payment eligibility, any Implementer if the Pilot Manager concludes, upon consultation with the Secretariat, that the Implementer's activity or conduct, including any alleged corrupt, fraudulent or obstructive practice or similar misconduct, may adversely affect the integrity of the Pilot, or the name or reputation of the other Implementers, the Pilot Manager, and/or other AgResults entities.

If the Pilot Manager determines, in consultation with the Secretariat, that the Implementer uses any unfair, manipulative, fraudulent, deceptive, dishonest or otherwise unacceptable practices, that are, in the Pilot Manager's opinion, contrary to or not compliant with the Pilot objectives, the Pilot Manager may disqualify and terminate the Agreement with such Implementer. In the event of fraud or other illegal practice, the Pilot Manager may also alert appropriate authorities as appropriate. The AgResults Pilot Manager will endeavour to discuss with the Implementer any concerns about any questionable practices and, to the extent legally possible and practical, resolve any issues with the Implementer before its disqualification and termination of the Agreement. Implementers are encouraged to report any unacceptable practices they learn of to info@agresults.org.



# 6. Application Instructions and Evaluation

# **6.1** Application Instructions

Interested organizations must complete and submit a Technological Concept Application using the template in Annex 1 in the Request for Application, as well as the Anti-Corruption Compliance Certification in Annex 2. Organizations submitting the applications in association with others must (i) specify the lead organization of the association that will be representing the association with respect to the application process and will become the contracting party to the Implementer Agreement, if the association is selected, and (ii) submit the relevant documents as specified further below.

The deadline for submission of the application documents is **17.00 hour on April 28, 2017**. Applications received after the deadline may be disqualified. The application must be submitted via email to this address: <a href="mailto:infoAgresults@snv.org">infoAgresults@snv.org</a>.

Application documents should be submitted in one email to <a href="mailto:infoAgresults@snv.org">infoAgresults@snv.org</a>, and hard copy with full signatures should also be submitted by postal mail to:

C/o SNV Vietnam Office 3rd floor, Building D, La Thanh Hotel 218 Doi Can Street, Ba Dinh District Hanoi, Vietnam

Please indicate "Implementer RFA-AgResults Vietnam Emissions Reduction Pilot" in the subject line of the email and on the label of a sealed envelope.

Questions concerning the Pilot or this RFA may be submitted by applicants at any time, but no later than 1700 hours on April 6, 2017 to <a href="mailto:infoAgresults@snv.org">infoAgresults@snv.org</a>. All question responses will be included in a public document to be posted no more than 15 days after RFA release.

- Applications will be reviewed by the Review Panel that include the Secretariat, the Pilot Manager
  and the Verifier with input as appropriate from the Project Steering Unit and Project Management
  Unit of Thai Binh; the Crop Production Department of MARD, and the Advisory Council. The
  Review Panel reserves the right to request additional information from applicants as necessary to
  make an informed final decision.
- The Review Panel will review and is expected to make selection decisions by May 15, 2017. The Pilot Manager expects to inform the selected Implementers by May 16, 2017.
- The Pilot Manager expects to sign the Implementer Agreements with selected Implementers by May 31, 2017.
- Selected Implementers will start their 1<sup>st</sup> testing crop in the summer crop which will start at the end of June or early July 2017 in Thai Binh.

In order to be accepted for evaluation, applications shall include:

- A fully-completed Technological Concept Application as provided in Annex 1 of this RFA.
- For applicants submitting the application in association with others, copies of agreements (JV, association, partnership, etc.) between the lead applicant and any co-applicants to act together as Implementer for the AgResults Vietnam Emissions Reduction Pilot, including power of attorney confirming that the lead applicant has the authority to represent the association in the application



process and to sign the Implementer Agreement on behalf of the association.

• A completed **Anticorruption Compliance Certification** as provided in Annex 2 of this RFA.

# **6.2** Application Scoring

Once an applicant's eligibility is established according to the eligibility criteria set forth above, scoring will be performed using an adjectival scale ranging from excellent, very good, good, fair, and poor. Applications will be evaluated based on the following criteria, in order of importance from most to least important:

- Demonstration of the feasibility of: i) the efficacy of the proposed rice cultivation technology for reducing GHG emissions and increasing yield; ii) potential for voluntary adoption and uptake by smallholder rice farmers; iii) potential for uptake in large-scale rice production areas.
- Demonstration of sustainability via strength of proposed partnerships with key stakeholders of the rice value chain in Thai Binh.
- Organization's demonstrated past performance, commercial viability, financial capacity to prefinance costs of testing technology, and capacity and commitment to practice and promote lowcarbon rice farming practices.



# **Annex1: Technological Concept Application Form**

# ALL INFORMATION IN THIS APPLICATION WILL BE TREATED WITH STRICT CONFIDENTIALITY

# I. Lead Organization

- 1. Name of the lead organization:
- 2. Contact information

Address:

Tel.: Fax: Email: Website: Contact Person's Full Name: Title: Email: Tel.:

- 3. Legal status in Vietnam:
- 4. Type of organization:
- 5. Key activities:
- 6. Annual revenue

Year	Annual revenue
2014	
2015	
2016	

- 7. Key roles in the proposed partnership
- 8. Legal structure of the proposed association partnership

# II. Proposed Association or Partnership

Lead applicant is encouraged to form the partnership with relevant partners/entities from both the public and private sectors of up to 4-5 key stakeholders.

Please provide your partners' information, including names and contact details of key intended implementing partners, and their role in the proposed project.

- 1. Name of co-applicant 1:
- 1.1. Legal status:
- 1.2. Type of business:
- 1.3. Represented by:
- 1.4. Key expertise:
- 1.5. Key roles in the proposed association/partnership:



- 1.6. Legal structure of proposed association/partnership:
- 2. Name of co-applicant 2:
- 2.1. Legal status:
- 2.2. Type of business:
- 2.3. Represented by:
- 2.4. Key expertise:
- 2.5. Key roles in the proposed association/partnership:
- 2.6. Legal structure of proposed association/partnership:
- 3. Name of co-applicant 3:
- 3.1 Legal status:
- 3.2 Type of business:
- 3.3 Represented by:
- 3.4 Key expertise:
- 3.5 Key roles in the proposed association/partnership:
- 3.6 Legal structure of proposed association/partnership:

# **III.** Application Narrative

Please respond to the following (maximum 400 words total for this section):

- (1) The lead applicant's organizational history, size, core business, key products/services, and development strategy.
- (2) Current existing issues with rice farming practices (if any).
- (3) Summary of proposed technology and how it meets AgResults Vietnam Emissions Reduction Pilot requirements to increase yields and decrease Greenhouse Gas Emissions relative to the included baseline survey practices.

# **IV.** Project Description

Please provide complete responses for the following questions:

# 1. Description of Demonstration site(s)

- 1.2 Size of demonstration site (minimum of 0.15 ha with dimensions of minimum 30x30m):
- 1.3 Site longitude/latitude GPS coordinates: ......
- 1.4 Soil type:
  - 1. Alluvial soil: provide exact types of alluvial
  - 2. Acid sulphate soil: provide exact types of acid sulphate soil
  - 3. Sandy soil: provide exact types of sandy soil

Site elevation (meters above sea level): .....



# 2. Explanation of Proposed Rice Farming Technology

- 2.1 Describe your rice farming technology with respect to how it differs with the conventional practices identified in the baseline survey.
- 2.2 How will the proposed technology both reduce the GHG and increase the yield?
- 2.3 What incentivizes farmers to adopt and uptake your proposed technology?
- Does the proposed technology require improvements to the current infrastructure system in Thai Binh? Can it function to its full efficacy in the context of the current infrastructure system?
- 2.5 Describe the planned technology by completing the tables in this section to describe rice variety, fertilizer/manure use, water management, rice residue management, and field preparations and tillage:

**Seed/Variety Application** 

Crop Season	Variety Name	Variety Type A = high yielding B = normal yielding	Planting method: transplant or sow
Summer			
2017			
Spring 2018			

**Animal Manure (if used)** 

Crop Season	Application	Dates	Quantity (kg/360m2)	Type of manure (poultry, cattle, pig)
Summer	1 <sup>st</sup> application:			
2017	2 <sup>nd</sup> application:			
	1 <sup>st</sup> application:			
Spring 2018	2 <sup>nd</sup> application:			

#### **Chemical Fertilizer**

Crop Season	Application Dates		Brand	N (%)	Total amount (kg/360m2)
	1 <sup>st</sup> application				
Summer	2 <sup>nd</sup> application				
2017	3 <sup>rd</sup> application				
	4 <sup>th</sup> application				
Coning	1 <sup>st</sup> application				
Spring 2018	2 <sup>nd</sup> application				
	3 <sup>rd</sup> application				



#### **Water Management**

	Rice	Water	Summe	er 2017	Rice	Water	Spring	g 2018
Flood Event	Crop Stage <sup>1</sup>	depth (cm)	Flood Start Days relative to sowing/ transplanting*	Flood Stop <sup>2</sup> Days relative to sowing/ transplanting*	Crop Stage <sup>1</sup>	depth (cm)	Flood Start Days relative to sowing/ transplanting*	Flood Stop Days relative to sowing/ transplanting*
1								
2								
3								
4								
5								
•••								
Final Drain**								

<sup>&</sup>lt;sup>1</sup>Rice Crop Stages: sowing/transplanting - tillering, stem elongation, panicle initiation, booting/heading, flowering, milk stage, dough stage or mature stage.

# Accompanying Narrative Description:

Describe the crop water management scheme including the general strategy, how many times of irrigation for each crop etc. Include details on the following:

- Beginning of flooding for crop season (relative to planned sowing or transplanting).
- Number of drain events. A drain event is defined as a day when there is no standing water on the paddy. Each drain event should be defined by approximate crop stage (either physiological stage or days after planting) and duration (number of days).
- Final drain events for harvest shall be defined based on days before harvest

 $<sup>^{2}</sup>$  "Flood stop" is defined as the date when there is no longer standing water on the paddy soil surface.



<sup>\*</sup>Note: A negative date indicates flood starts before sowing/ transplanting. For example, the entry for flooding the field 6 days before sowing/ transplanting would be -6.

<sup>\*\*</sup> Final drain event is defined relative to expected harvest date. If the plan is to drain the field 10 days before harvest, then the entry would be 10.

Straw management

Crop	Remaining	Buri	ning		Remove for
Season	root after harvest (%)	Burn on paddy surface (%)	Collect and burn (%)	Incorporate into soil (%)	compost, animal feed, etc (%)
Summer 2017					
Spring 2018					

<sup>\*</sup>Note: Rice straw is defined as above ground residue after harvesting the grain.

**Field Preparations and Tillage** 

Crop Season	Dates of Tillage Events		Tillage Method (manual/animal/machine)	Approximate Tillage depth (cm)
	1 <sup>st</sup> Tillage:			
Summer 2017	2 <sup>nd</sup> Tillage:			
	3 <sup>rd</sup> Tillage:			
	1 <sup>st</sup> Tillage:			
Spring 2018	2 <sup>nd</sup> Tillage:			
	3 <sup>rd</sup> Tillage:			

# 3. Crop financing

- 3.1 What is your estimated budget for testing your technology for each of the Phase I Summer 2017 and Spring 2018 crops?
- 3.2 How will you finance these costs?

4.	If your technology is awarded one or more of the interim, milestone, or grand
	prizes, how will the award(s) be used?

prizes, how will the award(s) be used?
Recover investment cost – please indicate the % of the total prize:
Re-invest to build infrastructure (storage, irrigation systems or other) – please indicate the % of
the total prize:
Other – please indicate the % of the total prize:
Sharing of the prize with partner stakeholders (please indicate the % of the total prize):
☐ Lead Applicant:%
□ Co-applicants: %
□ Co-ops: %
☐ Farmer households in Phase I %
☐ Farmer households in Phase II: %
☐ Other (Please Specify):%



- 5. Has your organization received financial support from other development organizations, state agency or other investors in the last 5 years to implement your emissions initiatives? If yes, please provide details.
- 6. Application Submission

By signing and submitting the application, you certify that all responses and information provided in the application form are true and accurate and that you understand and accept <u>all</u> components of this Request for Applications (RFA), including your commitment to completing both Phase I cropping cycles for testing your proposed technology and, if selected to continue in the Pilot, upscaling your technology for the four Phase II cropping cycles.

By submitting the application for the Pilot, you also agree to be bound by the decisions of AgResults about your eligibility to participate. AgResults reserves the right to select the organizations it determines, at its discretion, most appropriate for the Pilot. The AgResults Pilot Manager and Secretariat, with the input from the Advisory Council, will review your application and will notify you in writing if your application is approved and you are selected to participate in the Pilot. You understand and agree that all costs and time incurred by the applicant in connection with the application process will be the borne by your organization and are not reimbursable by AgResults.

Name of the Organization	-		•
Name of Authorized Representativ	ve:		
Signature of Authorized Represent	tative:		
Date:			
	AgResults	Internal admin	
Received date	Received by		Application code
Recommendation			

Attachment 1: Copies of partnership agreement between lead and co-applicants

**Attachment 2**: Anticorruption Compliance Certification



# **Annex 2: Anticorruption Compliance Certification**

AgResults requires full compliance by any recipient of AgResults funds with the U. S. Foreign Corrupt Practices Act (15 U.S.C. Section 78dd-1, et. seq.) as amended ("FCPA"), and all other applicable anticorruption laws, rules and regulations.

The anti-bribery provisions of the FCPA make it illegal to offer, promise, authorize, or provide anything of value, either directly or indirectly (e.g., through third parties), to a Foreign Official (as defined below) for the corrupt purpose of (1) influencing an official act or decision; (2) inducing the Foreign Official to do or omit to do anything in violation of his lawful duty; or (3) securing an improper advantage; in each case in order to assist in obtaining, retaining, or directing business to anyone.

Under the FCPA, a Foreign Official includes not only a person who performs traditional governmental or administrative functions, but also any member of a royal family or an employee of an entity in which a governmental body has an ownership interest (even a minority interest). Such employee could still qualify as a Foreign Official even if he or she performs business-related functions as an employee of such entity engaged in commercial, rather than governmental, activities.

To facilitate the Applicant's understanding and compliance with obligations set forth in this clause, 'Foreign Official' is hereby defined for the purposes of this clause to include:

- Any officer or employee of a non-U.S. government (including any non-U.S. military personnel) or any
  of its departments or agencies or incorporated entities (including state-owned enterprises);
- Any director, officer, or employee of any legal entity or joint venture that is controlled or significantly owned by a non-U.S. government (including any non-U.S. military personnel) or any of its departments or agencies or incorporated entities (including state-owned enterprises);
- Any officer or employee of any public international organization (e.g., the United Nations or World Bank);
- Any person that represents or acts on behalf of, or in an official capacity for, any non-U.S. government or any of its departments or agencies or incorporated entities (including state-owned enterprises), even if honorary;
- Any non-U.S. political party or party official or candidate for non-U.S. political office;
- · Any member of a royal family; and
- Any member of a non-U.S. legislative body.

The Applicant understands that prohibited payments or offerings under the FCPA need not take the form of cash or cash equivalents. For the purposes of this clause, and in line with the FCPA, the reference to 'anything of value' is construed broadly and covers any tangible benefit of any kind, including, without limitation, cash or cash equivalents, gifts (including, but not limited to, gifts or courtesies of local custom, wedding and personal gifts, jewelry), political contributions, donations to charities at the behest of a Foreign Official or his/her family, entertainment (including, but not limited to, meals and tickets to events), travel and travel-related expenses, hospitalities (including, but not limited to, accommodation), ownership rights in joint ventures or other entities, inflated or excessive contract prices, loans and employment (whether long-term or temporary). Even if any payments or gifts are a customary part of the culture of a particular country, they may be prohibited under the FCPA. In addition, providing or offering gifts, payments or other benefits to another person for an improper or corrupt purpose may violate not only the FCPA but also other similar anti-bribery laws and regulations.



Moreover, certain laws and regulations, that may be also applicable in connection to the Applicant's activities, prohibit bribes or kickbacks in the private sector and regulate, among other things, whether gifts, entertainment or employment may be provided to U.S. government officials. The Applicant shall comply with all such applicable laws and regulations.

Therefore, in connection with the participation in the *AgResults Vietnam Emissions Reduction Pilot Project*, the Applicant shall not cause the Pilot Manager and all other entities associated with the AgResults Initiative to be in violation of the FCPA or any other applicable anticorruption laws or regulations. The Applicant must refrain from either directly or through others, making or offering to make bribes, kickbacks or other corrupt payments or provide anything value to a Foreign Official or anyone else for purposes of influencing them to benefit the Pilot Manager or any other entities associated with AgResults Initiatives, the Applicant, or any other party.

The Applicant shall notify the Secretariat immediately if it learns of any violations of the FCPA or any other anticorruption laws in connection with the Applicant's involvement in the *AgResults Vietnam Emissions Reduction Pilot Project*. Notifications can be made to AgResults Secretariat through email: <a href="mailto:info@agresults.org">info@agresults.org</a> or by contacting Justin Kosoris, AgResults Secretariat Project Manager, at +1.703.253.2548. Notifications can be also made anonymously through the website <a href="www.integrityhelp.com">www.integrityhelp.com</a>, or by calling +1 866 850 1485 (within the U.S.) or +1 503 748 0570 (outside the U.S.).

#### **Compliance Certification**

By my signature, I certify as the Applicant, or as an authorized representative of the Applicant, that the Applicant has complied with and will comply with the U. S. Foreign Corrupt Practices Act (15 U.S.C. Section 78dd-1, et. seq.) as amended ("FCPA"), and all other applicable anticorruption laws, rules and regulations.

Name of the Applicant
Organization of the Applicant
Signature
Printed Name of Signatory (if signatory is an authorized representative of the Applicant)
Date



# **Annex 3: Performance Baseline Report**

# Setting management baseline

Setting baseline management practices against which GHG reductions and yields are measured is extremely difficult since it relies on setting a counterfactual baseline (since the farmers are changing their practices by implementing the Implementers technologies). Two approaches for setting management baselines were considered. One approach is to define baseline management at a field by field basis. This is accomplished by interviewing each farmer participating in the program to collect historical baseline management information prior to implementing the new technologies. The historical management practices are then used as a proxy for future management baselines. The advantage of this approach is that it captures differences in management across all farmers. However, this approach can be problematic and creates potential incentives to set baselines that have artificially high GHG emissions and low yields to "game" the system to easily achieve high emission reductions and yield increases. A second approach is to define a performance baseline based on regional management practices. This is done by interviewing farmers to collect statistics on management practices. This should be done before the Phase 2 of AgResults to minimize the impact of the AgResults Pilot Project influencing survey responses. Advantages of the performance baseline include avoiding potential gaming of the system and all technologies are evaluated against the same baseline. A disadvantage is that the approach requires surveys to collect data and set the baseline and the total program GHG emission reductions and yield gains may not be reflected in the outcomes. A performance baseline approach will be used for quantification of GHG reductions and yield gains for all technologies for Phase 1 and 2.

# **Setting Performance Baseline**

A performance baseline management system is defined separately for spring and summer rice cropping system. Results of the surveys will be analyzed to see if there are statistically different management system across the four major soil types in Thai Binh. If there are differences, then a separate performance baseline will be set by soil type and cropping season, resulting in up to 8 different performance baselines. Each baseline management system will be defined based on management practices that impact rice GHG and yields, including:

- ✓ Fertilizer use: type, application rates, application timing and application methods.
- ✓ Rice stubble and straw residue management: fraction removed from the field, fate and timing of incorporation.
- ✓ Water management: continuous flooding, number of mid-season drain for applications of agrochemicals and pesticides, AWD.
- ✓ Field preparations including tillage practices and water management for field preparations
- ✓ Organic amendments (type, amount applied, timing of application).
- ✓ Rice varieties and target yields

#### Survey Material and Method

Study sites: the survey was conducted in 7 districts and one city of Thai Binh province from 5 January to 25 January 2017.

Surveyed communes/villages selection: we assume that farmer will have different rice farming practices with different soil types, 24 surveyed communes with biggest rice cultivation area therefore were selected



depending on Thai Binh rice soil map. Next 24 surveyed villages from those communes were chosen for interviewing depending on soil type.

Surveyed household selection: 30 households were randomly chosen from households list of each of 24 surveyed villages for interviewing resulting in 720 households interviewed in Thai Binh province.

Testing questionnaire: the questionnaire was developed by IAE and Applied GeoSolutions in Dec 2016 and also was tested by interviewing 5 farmers in Dong Hung district, Thai Binh province at 26<sup>th</sup> Dec. The questionnaire then was revised and used for the survey from 5 January to 25 January 2017.

The survey results were tabulated and analyzed to define the Performance Baseline for spring and summer crops. Expert judgement was used to select management practices for the performance baseline based on the relative impact of the practice of rice yields and greenhouse gases.

#### **Performance Baseline**

The performance baseline for transplanting and direct seeding is summarized in the following 2 tables.



# Proposal on the performance baseline in rice production of Thai Binh

Performance baseline: Transplanting case								
	Spring crop season	Summer crop season	Note					
Rice variety	BC15, BT7, ĐS1(Japonica)  BC15, BT7, ĐS1 (Japonica)							
Soil tillage								
Time 1	25-40 days prior to transplanting (40 days with the sunny weather or high - position field, 25 days with the humid weather or low- position field), soil plough, soil moisture (60% of water holding capacity)	15-20 days prior to transplanting, plough, flooded field (15-20cm)						
Time 2	13-15 days prior to transplanting, raking, flooded field (10-20cm)	2-3 days prior to transplanting, raking, flooded water (10-15cm)						
Time 3	2-3 days prior to transplanting, raking, flooded field (10cm)							
Irrigation management								
Beginning flooded field	13-15 days prior to transplanting	15-20 days prior to transplanting						
#Drainages/season (times)	2	2						
1 <sup>st</sup> drainage (top tillering period)	45-50 days after transplanting	35-40days after transplanting						
2 <sup>nd</sup> drainage (before harvesting)	7 days prior to harvesting	14 days prior to harvesting						



#days during 1st drainage (end of tillering period)		5-7	5-7		
Water level in the field (cm): transplanting –tillering, top tillering, Stem elongation -booting/shooting, flowering, flowering- dough stage, dough stage – harvesting	3-5, 5-7, (	0, 7-10, 7-10, 0	3-5, 5-7, 0, 7-		
Residue management					
Stubble (32% of total of stubble+straw)		% household d stubble in to soil.	- In which 90% h	Incorporating in soil at the 1 <sup>st</sup> tillage of next crop	
Rice straw (68% of total of stubble+straw)	- 45% househ soil	hold burned RS hold incorporated RS in hold removed RS out the	soil	d burned RS incorporated RS in removed RS out the	Farmers don't use trichoderma
Fertilizer management	Alluvial soil group (Hung Ha, Dong Hung)	Limited soil group (TienHai, Thai Thụy)	Alluvial soil group (Hung Ha, Dong Hung)	Limited soil group (TienHai, Thai Thuy)	
Amount (N-P2O5-K2O) (kg/ha)	119-42-67 129-72-85		105-38-57	118-55-59	N-P2O5-K2O using from households
# fertilization	3 3		3	3	applying NPK+urea
Base application (% of total N)	44	32	43	35	INFNTUIEd
First top dressing (% of total N)	46	48	50	44	
Second top dressing (% of total N)	9	19	6	20	



Performance baseline: Sowing case							
	Spring crop season	Summer crop season	Note				
Rice variety	BC15, BT7, ĐS1(Japonica)						
Soil tillage							
Time 1	25-40 days prior to sowing (40 days with the sunny weather or high - position field, 25 days with the humid weather or lowposition field), plough, saturated field.						
Time 2	13-15 days prior to sowing, raking, flooded field (10-30cm)						
Time 3	2-3 days prior to sowing, raking, flooded field(10cm), drainage after tillage, leveling the field, trench for drainage						
Irrigation management							
Beginning flooded field	13-15days prior to sowing	15-20 days prior to sowing					
#Drainages/season (times)	3	3					
1 <sup>st</sup> drainage (before sowing)	drainage (before sowing)  1 days prior to sowing		Drainage by Cooperative				
2 <sup>nd</sup> drainage (top tillering period)	45-50 days prior to sowing	35-40days prior to sowing					
3 <sup>rd</sup> drainage (before harvesting)	rainage (before harvesting) 7 days prior to harvesting						



#days during 1st drainage (before sowing)	12-:	15	7-1	Water left in trench (1 trench per 2m), saturated soil	
#days during 2 <sup>rd</sup> drainage (top tillering)	5-	7	5-	7	
Water level (cm): Sowing–small seedling (2.5 leaves), small seedling (2.5 leaves) – top tillering, stem elongation – booting/shooting, flowering, flowering- dough stage, dough stage – harvesting	0, 3-8, 0, 7-	10, 8-12, 0	0, 3-8, 0, 7-		
Crop residue management					
Stubble (32% of total of stubble+straw)	- In which 90% h incorporated s -	nousehold tubble in to soil.	- In which 90% household incorporated stubble in to soil.		Incorporating in soil at the 1 <sup>st</sup> tillage of next crop
Rice straw (RS: 68% of total of stubble+straw)	soil	d burned RS d incorporated RS in d removed RS out the	In which - 40 % household burned RS - 40% household incorporated RS in soil - 20% household removed RS out the field		Farmers don't use trichoderma
Fertilizer management	Alluvial soil (Hung Ha, Dong Hung)	Limited soil (Tien Hai, Thai Thuy)	Alluvial soil (Hung Ha, Dong Hung)	Limited soil (Tien Hai, Thai Thuy)	
Amount (N-P2O5-K2O) (kg/ha)	127-48-80 133-62-76		105-47-72	120-63-70	N-P2O5-K2O using from households
# fertilization	3 3		3	3	applying NPK+urea
Base application (% of total N)	48	35	56 29		applying in Kruica
First top dressing (% of total N)	40 42		30	45	
Second top dressing (% of total N)	12	23	14	26	



Table 1: Example for water management in paddy rice field for transplanted rice in spring and summer season in Thai Binh

Flood	Rice Crop Stage <sup>1</sup>	Water depth (cm)	Spring Crop Water Management			Water	Summer Crop Water Management	
Event			Flood Start Days relative to transplanting	Flood Stop <sup>2</sup> Days relative to transplanting	Rice Crop Stage <sup>1</sup>	depth (cm)	Flood Start Days relative to transplanting	Flood Stop Days relative to transplanting
1	No crop (land preparation)	20	-32		No crop (land preparation)	25	-18	
2	Transplanting- tillering	3-7			Transplanting- tillering	3-7		
3	Top tillering	0		43	Top tillering	0		35
4	Stem elongation	7	50		Stem elongation	7	42	
5	Panicle initiation	9			Panicle initiation	9		
6	Booting/shooting	9			Booting/shooting	9		
7	Flowering	9			Flowering	9		
8	Milk stage	9			Milk stage	9		
9	Dough stage	0		105	Dough stage	0		95
10	Mature stage (harvesting)	0			Mature stage (harvesting)	0		

<sup>&</sup>lt;sup>1</sup>Rice Crop Stages: tillering, stem elongation, panicle initiation, booting/heading, flowering, milk stage, dough stage or mature stage.



<sup>&</sup>lt;sup>2</sup>"Flood stop" is defined as the date when there is no longer standing water on the paddy soil surface.

Table 2: Example for water management in paddy rice field for sowed rice in spring and summer season in Thai Binh

Flood Event	Rice Crop Stage <sup>1</sup>	Water depth (cm)	Spring Crop Water Management			Water	Summer Crop Water Management	
			Flood Start Days relative to sowing	Flood Stop <sup>2</sup> Days relative to sowing	Rice Crop Stage	depth (cm)	Flood Start Days relative to sowing	Flood Stop Days relative to sowing
1	No crop (land preparation)	20	-32		No crop (land preparation)	25	-18	
2	Prior sowing- seedling (2.5 leaf)	0		-1	Prior sowing- seedling (2.5 leaf)	0		-1
3	Seedling (2.5 leaf)- tillering	3-7	15		Seedling (2.5 leaf)- tillering	3-7	10	
4	Top tillering	0		47	Tillering	0		37
5	Stem elongation	7	54		Stem elongation	7	44	
6	Panicle initiation	9			Panicle initiation	9		
7	Booting/shooting	9			Booting/shooting	9		
8	Flowering	9			Flowering	9		
9	Milk stage	9			Milk stage	9		
10	Dough stage	0		110	Dough stage	0		100
11	Mature stage (harvesting)	0			Mature stage (harvesting)	0		

<sup>&</sup>lt;sup>1</sup>Rice Crop Stages: tillering, stem elongation, panicle initiation, booting/heading, flowering, milk stage, dough stage or mature stage.



<sup>&</sup>lt;sup>2</sup>"Flood stop" is defined as the date when there is no longer standing water on the paddy soil surface.