

**Title:** (IRRI-SEA) Policy Information and Response Platform on Climate Change and Rice in ASEAN and its Member Countries (PIRCCA)

## 1. Description

Start date	End date	Management liaison	Mgmt. liaison contact
Mar 2014	Dec 2017	F1	Thornton, Philip <p.thornton@cgiar.org>

Funding source types	Status	Lead Organization	Project leader
W1/W2, Bilateral	On-going	IRRI - International Rice Research Institute - Philippines	Pede, Valerien <v.pede@irri.org>

### Project is working on

Flaship(s)
F1 (before F4 - Philip): Priorities and Policies for CSA

Region(s)
SEA: Southeast Asia

### Project summary

The project aims to bridge the gap between science and policy and to establish informal and operational linkages with relevant stakeholders. It has the overarching goal of enabling policymakers Vietnam and Myanmar, using a multidisciplinary approach, to make informed decisions on: 1) food security policies 2) climate change adaptation policies and, 3) gender action plans that evaluate the potential of policies, practices, and technologies in overcoming gender disparities and social differentiation. Products of the project include data, models and scenarios that illustrate and aid understanding of the impact of climate change on agriculture; decision- support tools for policy development and making investment choices for climate-resilient agriculture at the national and global levels; analysis of current and emerging policies, along with pilot policy interventions case studies conducted with national partners, with special focus on social differentiation and gender issues; and, analysis and experimentation concerning novel decision-making processes.

## 2. Partners

### Partner #1 (Leader)

**Institution:** IRRI - International Rice Research Institute

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Project Leader	Pede, Valerien <v.pede@irri.org>	Valerien Pede leads Activity 2014-119 and 2014-298. He is responsible for coordinating the PIRCCA team and all partners in implementing the various tasks. Valerien Pede is also be responsible for the timely delivery of all outputs under these activities.	HQ
Partner	Setiyono, Tri <t.setiyono@irri.org>	Tri Setiyono is responsible for Activity 2014-120. He coordinates the various tasks under this activity together with national partners. Tri Setiyono is also responsible for the timely delivery of all outputs under these activities. Tri Setiyono also leads some case studies under this activity.	HQ

## Partner #2

**Institution:** IPSARD - Institute of Policy and Strategy for Agriculture and Rural Development

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	Huong, Do Lien <lienhuongdo@yahoo.com>	1. Coordinate activities to identify knowledge gaps and key priorities in CC policy implementation in agriculture, conduct analysis of existing policies, data, and methodologies, food security, climate risk management and adaptation, and pursue effective communication strategy to ensure the knowledge generated will reach decision makers. 2. Collect and analyze data to generate knowledge for policy decisions on CC. 3. Coordinate with other partners on the execution of case studies identified in Year 1 of the 4. Facilitate the coordination of the strategic alliance to ensure paradigm adjustment in policy.	HQ

## Partner #3

**Institution:** Yezin Agricultural University-Myanmar (Burma)

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	Hseng Hom, Nang <nanghsenghom@gmail.com>	1. Link the project team to decision makers at national and local levels. 2. Review existing CC policies and collect and analyze data related to food security, climate risk management and adaptation to progressive CC, and capture synergies with their on-going climate change mitigation actions plans. 3. Coordinate with other partners on the execution of case studies identified in Year 1 of the 4. Facilitate the coordination of the strategic alliance to ensure paradigm adjustment in policy.	HQ

## Partner #4

**Institution:** RIMES - Regional Integrated Multi-Hazard Early Warning System

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	Rose Policarpio, Ruby <ruby@rimes.int>	1. Liaise with National Meteorological and Hydrological Services (NMHSs) in projects countries, for the availment of historical data, and forecast product of different time and spatial scales. 2. Assist NMHSs in evaluating and analyzing historical data for the purpose of climate informed policy formulation. 3. Provide technical assistance to relevant NMHSs in developing , enhancing, and/or customizing forecasts products of different times and spatial scales to suit the information requirements for decision makers in ASEAN countries, 4. Contribute in delivering climate data products relevant for CC impact assessment.	HQ

## Partner #5

**Institution:** Cantho University-Vietnam

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	Quan Minh, Vo <vqminh@ctu.edu.vn>	Cantho University leads the case study dealing with demonstrations at farm level of agricultural practices resilient to climate change that has strong adoption potential. Policy recommendations from this case study will be jointly generated with IPSARD and IRRI.	HQ

## Partner #6

**Institution:** CLRRI - Cuu Long Delta Rice Research Institute

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	Cong, Phan Thi <panthicon@gmail.com>	1. Support IRRI and Can Tho University in promoting Biogro biofertilizer application in rice production areas in Mekong River Delta, Vietnam 2. Contribute in field demonstration experiments on Biogro application in rice system by providing Biogro materials and advising suitable agronomic practices 3. Facilitate development of Biogro production facilities in DARD research/distribution centers in Mekong River Delta, Vietnam in coordination with IRRI, Can Tho University, and IPSARD	HQ

## Partner #7

**Institution:** VNUA - Vietnam National University of Agriculture

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	Ngoc, Ninh <hongocninh@gmail.com>	Assist in conducting socio-economic case studies related to climate change and adaptation strategies	HQ

## Lessons regarding your partnerships and possible implications for the coming planning cycle:

Year	Lesson(s)
2016	Partnership with key policy institutions is vital for policy engagement. Policy institution within the countries should be involved to expect our project to bridge the gap between science and policy. This goal cannot be achieved by the PIRCCA project alone. Concerted efforts are needed with other projects with similar goals. During 2016, the PIRCCA project team has been in contact with CIAT-Asian for participating in the development of a "Climate Change Policy Hub". The PIRCCA project team expect to play a major role on this activity during the coming planning cycle.

## Partnerships overall over the last reporting period:

Overall, our partnership played an outstanding role during the last reporting period. Despite the major budget cut in 2016, most of the planed activities were kept alive. Our engagement activities were mainly facilitated by IPSARD in Vietnam and YAU in Myanmar. interactions with other key organization in the two countries also helped in conducting joint case studies to inform policy. For instance, most of the gender case studies were conducted by VNUA and IPSARD in Vietnam.

## 3. Locations

This project is not global

Project level	Latitude	Longitude	Name
Country			Myanmar (Burma)
Country			Vietnam

## 4. Outcomes

### 4.1 Project Outcomes

#### **Project Outcome statement:**

By 2019, the PIRCCA recommendations will contribute to at least 2 rice policies proposed in each country. These policies will be mainstreamed into at least 3 provinces in the Mekong delta in Vietnam and 1 municipality in Myanmar. By 2019, Vietnam and Myanmar are applying enhanced or equitable food security policies.

**Annual progress towards outcome (end of 2016\*):** In 2016, PIRCCA will continue to work with stakeholders at national and sub-national levels to support policy implementation with a specific focus on 13 provinces in Vietnam and the Ayeyarwady Region in Myanmar. At the national level, the project will continue to work with the Vietnamese ministries, MARD and MONRE, and their technical staff to support the operations of the policy at the provincial level. The PIRCCA team participated in several consultations meeting which led to the drafting of the Vietnam proposal for restructuring of rice sector. The proposal has been finalized and submitted to the Prime Minister. The PIRCCA team together with CCAFS-SEA also contributed to the drafting of the UNFCCC Subsidiary Body for Scientific and Technological (SBSTA) for Vietnam and Myanmar.

**Annual progress towards project outcome in the current reporting cycle (2016\*):** The proposal for restructuring for restructuring of the rice sector has been approved by the former Minister of Agriculture and Rural Development (MARD) in Decision 1889/Q?-BNN-TT on 23 May 2016. Approval by the prime Minister is still pending. The following recommendations were included in the proposal (also referred to as master Plan for Agriculture): (1) Food security - the proposal recommends a transition from traditional emphasis on rice monoculture systems to rice - other crops and livestock farming. - development of policies on irrigation systems, extension services, credit access, agribusiness investments, markets and efficient value chains (2) Promotion of Climate smart Agriculture at large scale (3) Climate Change monitoring and early warning systems at low cost, rapid and convenient (4) Research and development of multiple stress tolerant rice varieties (short term, high yield, good quality) (5) promotion of Agricultural insurance (6) Promotion of farmer's collective actions via cooperatives, associations. With regards to (6) the government is actually interested in evaluating the effectiveness and potentials of land accumulation systems. Particularly, there is still some knowledge gaps on understanding the economic, social and environmental impacts of 'small household, big field' models for rice production. Also of great importance to the government is to investigate to what extent climate smart practices in rice production could be upscaled through the 'small household, big field' model. In 2016, The PIRCCA project has initiated some case studies related to these two topics. In the future, the government expects to set up a steering committee to follow and monitor the implementation of the master rice restructuring strategy. The Crop Protection department has already initiated meetings in several provinces to introduce main the strategies/directions of rice sector in Vietnam. In Myanmar, the climate change strategy document has been developed, but progress on the Rice restructuring program remains weak.

**How communication and engagement activities have contributed to achieving your Project outcomes:\*** In Vietnam, engagement and communication activities were mainly facilitated by IPSARD who also led the drafting of the restructuring proposal. Having IPSARD as partner for the PIRCCA



facilitated the inclusion of climate change related recommendations in the restructuring program. IRRI and the Vietnamese government have been working on implementing the rice strategy. Several meeting have been initiated to define implementation action plans. In Myanmar, the PIRCCA project participated actively in elaboration of the country's climate change strategy in 2015. During the year 2016, consultation and engagement activities were initiated to develop action plan for implementation of the climate change strategy.

**Evidence documents of progress towards outcomes:\***

[https://marlo.cgiar.org/data/ccafs/projects//8/projectOutcome/\(Translated\)%20Vietnam%20Rice%20Restructure%20Strategy.docx](https://marlo.cgiar.org/data/ccafs/projects//8/projectOutcome/(Translated)%20Vietnam%20Rice%20Restructure%20Strategy.docx)

**Annual progress towards outcome (end of 2015):** In 2015, PIRCCA recommendations will contribute the rice restructuring proposal in Vietnam and Myanmar. This is inclusive of promoting better rice adaptation practices as well as mainstreaming policy for local implementation. These policies will be informed by site-specific good practices identified from the GIZ-ATWGARD activities in Vietnam and Myanmar. Information packages will be tailored to meet the specific needs of stakeholders at different levels. Also, PIRCCA will contribute to the restructuring of the rice sector in Myanmar.

**Annual progress towards outcome (end of 2017):** In 2017, at least two restructuring policies for the rice sector will be clearly defined for Myanmar and Vietnam. The policies will include rice adaptation strategies for climate change with a focus on food security.

**Annual progress towards outcome (end of 2018):** In 2018, the institutional arrangement required for the implementation of policies will be identified. Mechanisms for implementing the climate policies will be put in place to allow mainstreaming at the local level for Myanmar and Vietnam.

**Lessons regarding your Theory of Change and implications for the coming planning cycle; e.g. how have your assumptions changed, or do you have stronger evidence for them:\*** Influencing climate policies through engagement and communication activities would require a long and enduring process. In order to reach our project outcome we need to get endorsement from key stakeholders and institutions. Working closely with IPSARD for example in Vietnam has greatly facilitated our participation in drafting the proposal for restructuring the Rice sector, making sure that our inputs are taken into account. There are often times changes at high level positions in the government. New officials may be appointed while progress has already been made through engagement with the former officials. So, when these changes happen, engagement activities should continue to ensure that the desired outcome will occur. These situations can create delays. Scientific reports and publications need to be accompanied with clear engagement strategies to ensure outcome to occur. An effective engagement strategy with stakeholders and policy makers on climate change policies would need convincing evidences, data, scenarios and decision tools.

## 4.2 CCAFS Outcomes

**RP SEA Outcome 2019:** Policy makers enhancing the design, investment decisions, implementation and monitoring and evaluation of agro - sectoral climate change policies through a transparent, coordinative and consultative mode from local to national level.

**Indicator #1:** # of equitable national/subnational food system policies enacted that take into consideration climate smart practices and strategies

2019
<p><b>Target value:</b> 4</p> <p><b>Cumulative target to date:</b> 8</p> <p><b>Target narrative:</b> At least 4 equitable food system policies that take into consideration climate smart practices are fully implemented in Vietnam and Myanmar and 2 other ASEAN member states. This target will be documented through This target will be documented through: Number of evidence that climate-information is considered in decision making at sub national and national governments Number of policy dialog negotiating use of climate-information in decision making Number of training participants agreed to follow up with their respective ministries and institutions Number of letter of agreements (LoA) indicating collaboration between strategic alliance groups</p> <p><b>The expected annual gender and social inclusion contribution to this CCAFS outcome:</b> The system food polices will be gender-sensitive. Finding from several gender studies implemented in PIRCCA are expected to contribute to such policies. Expected contribution will include reducing gender disparities and inequalities.</p>
2015
<p><b>Target value:</b> 2</p> <p><b>Cumulative target to date:</b> 2</p> <p><b>Target narrative:</b> IRRI's efforts in the restructuring of the rice sector in Vietnam and Myanmar will contribute to the inclusion of climate-information in policy decision-making. The proven good practices identified by GIZ-ATWGARD will help in the development of information packages for stakeholders.</p> <p><b>The expected annual gender and social inclusion contribution to this CCAFS outcome:</b> &lt;Not Defined&gt;</p>

**2016**

**Target value:** 2

**Cumulative target to date:** 4

**Target achieved:** 1.0

**Target narrative:** From 2014 to 2015, the PIRCCCA project has initiated a number of activities to better understand the policy decision making process in Vietnam and Myanmar. As a result, engagement strategies have been identified for policy influence. Climate change policy recommendations from the PIRCCA project will support the rice restructuring program in Vietnam and Myanmar. Through the restructuring program, 2 equitable national/sub-national food system policies will be elaborated based on PIRCCA recommendations.

**Narrative for your achieved targets, including evidence:** The Vietnam Rice Restructuring Strategy was approved by MARD Minister in Decision 1889/Q?-BNN-TT dated 23 May 2016. The overall objective of the strategy (Master Plan) is to improve the efficiency of rice production and trade in order to create a solid foundation for national food security, job creation, increase in farmers' income, ecological environment protection, and sustainable development. The specific targets in the Master plan are in the short term: (1) profit rate of 30% or higher for rice farmers, (2) 75% usage of certified seeds. (3) reduction of GHG by 10%, (4) reduction of postharvest loss by 8%.

**Narrative for your achieved annual gender and social inclusion contribution to this CCAFS**

**outcome:** The Rice Restructuring Program (Master plan) expect to contribute to women empowerment by: - Setting up mechanization in rice production to mitigate hard labor for most women, especially in activities like rice transplanting, drying and harvesting. - Organizing training programs for females in order to increase job opportunities and income; - Organizing workshops or campaigns about nutrition, processing and business skills for women. - Supporting and encouraging female labor to participate in pilot models and farmers' meetings. Gender surveys initiated by PIRCCA in 2016 contributed to better understanding of gender differences in perception of climate change and household adaptation strategies.

**The expected annual gender and social inclusion contribution to this CCAFS outcome:**

Recommendation from gender studies implemented in 2014 and 2015 will be taken into account during stakeholder and consultation meetings for policy formulation. Proposed climate change policies are expected to address gender issues and promote social equity.

**Major Output groups:**

- F1 (before F4 - Philip): Improved national planning processes through policy analyses, (re)formulation and implementation; and stakeholder analyses and engagement through scenarios, learning alliances and science-policy dialogues
- F1 (before F4 - Philip): Priority setting contextualised with national stakeholders and capacity strengthened to apply outputs in policy formulation; including trade-off analyses, foresight activities, and quantification of regional socio-economic scenarios
- F1 (before F4 - Philip): Effective supra-national governance systems and equitable engagement mechanisms between international and regional/national stakeholders to influence global policy and strengthened capacities to integrate local priorities into global fora



## 4.3 Other Contributions

### Contribution to other CCAFS Impact Pathways:

- Policy strategic alliance will advocate and promote large adoption of climate smart practices within ASEAN countries and enhance the adaptive capacity of small-scale farmers to climate change. -Understanding priorities in term of climate change, information need and knowledge gaps help designing effective strategy to implement climate information system and social safety net to allow greater resiliency of the agricultural production system to climate change. -Information generated and linkage to national meteorological and hydrological services will facilitate effective dissemination of climate information services and early warning system for extreme climate events - Recommendation from PIRCCA contribute to ensure gender-inclusive policies

### Collaborating with other CRPs

#### Rice

**Description of collaboration:** Collaboration with RICE-CRP allows the PIRCCA project to align its activities with some of the on-going programs in the region. The PIRCCA project complements many of the RICE activities in Vietnam and Myanmar particularly on RICE flagship 1&2. Several surveys conducted under RICE-CRP complemented the case studies implemented under PIRCCA

## 4.4 Case Studies

### Case Study #102

**Title:** Gender Differences in Climate Change Perception and Adaptation Strategies in Vietnam's Red River Delta

**Year:** 2016

**Project(s):** P8

**Outcome Statement:** A gender survey has been initiated to collect data on male and female perception of climate change and their adaptation strategies. This activity allows to understand intra-household differences on the perception on climate change and the adaptation strategies. This activity also complements the surveys conducted in the Mekong River Delta and allows comparative analysis between the two regions. Data collection has been completed. Recommendations from these studies will be used to develop gender actions plans at the provincial level.

**Research Outputs:** 1- gender disaggregated data in two provinces of the red river Delta: Thai Binh and Nam Dinh, on 200 rice farming households 2- report highlighting major findings intra-household differences about the perception on climate change and the adaptation strategies. 3- 1 peer-reviewed journal article will be published using the dataset in 2017 4- 1 Stakeholder meeting will be organized in 2017 to share the findings of this case study

**Research Partners:** - Vietnam National University of Agriculture - IPSARD

**Activities:** 1- Survey data collection in two provinces of the red river Delta: Thai Binh and Nam Dinh, on 200 rice farming households 2- Focus group discussion with key stakeholders in several districts of the two provinces 3- Policy dialogue with local and national stakeholder on the development of gender action plans and gender roles in climate change policies recommended in the Rice Restructuring Program (RRP)

**Non-Research Partners:** None

**Output Users:** 1- IPSARD 2- VNUA 3- Department of Agriculture and Rural Development (DARD) 4- Local and national stakeholders 5- International organization with climate change focus 6- Climate Change Policy Hub (still under development) 7- PIRCCA team

**Evidence Outcome:** Recommendations from gender studies are expected to inform provincial stakeholders in developing action plans to implement strategies and climate change policies included in the Rice restructuring program. At the moment, the action plan has not yet been finalized.

**Output Used:** Data collected under the survey were analysed using an econometric modelling involving a two-step procedure: 1- A probit model to detect the household perception about the severity of climate change 2- A negative binomial count model to investigate how the severity of climate change determine the household adaptation strategies.

**References Case:** The development of action plan is still on-going

**Primary 2019 outcome indicator(s):**

- # of equitable national/subnational food system policies enacted that take into consideration climate smart practices and strategies

**Link between outcome story and and the FP Outcome(s):** <Not Defined>

**Annex uploaded:**

## Case Study #113

**Title:** Assessing the economic, social and environmental impacts and potentials of 'small household, big field' model

**Year:** 2016

**Project(s):** P8

**Outcome Statement:** One of the priorities included in the Vietnam Rice restructuring program is to fully utilize the potential of the 'small household, big field' model in agriculture, particularly in rice production. Of particular interest for the government is to better understand to which extent climate smart practices could be promoted through this model. This case study has been initiated to inform policies makers about options to promote and scale up CSA practices through the 'small household, big field' model.

**Research Outputs:** - Report highlighting (1) the economic, social and environmental impacts of the 'small household, big field' model, (2) Constraints and opportunities in up-scaling the 'small household, big field' model - Workshop report highlighting feedback and recommendations from policy makers and stakeholders

**Research Partners:** - IPSARD - VNUA

**Activities:** - Focus group discussions with various companies in Mekong and red River delta operating the 'small household, big field' model - Focus group discussion with farmers involved in the model - Interviews with local policy makers

**Non-Research Partneres:** Since this outcome case study only started in 2016, we have not yet added a non-research partner. But definitely this will be a priority in 2017. Few private companies involved in the 'small household, big field' model, have already been identified and could serve as partners.

**Output Users:** - IPSARD - MARD - MONRE - DARD - National and provincial stakeholders - Policy makers

**Evidence Outcome:** This is a case study with high potential for outcome as it fits into the government priorities within the Rice Restructuring Program. After the final output has been delivered, we expect that it will be used in the development of action plans for implementing the Rice Restructuring Program.

**Output Used:** The first draft report has been finalized and is currently being reviewed. The case study is expected to continue in 2017. Several stakeholder workshops will follow in 2017 to discuss the findings of the case study.

**References Case:** This is on on-going process. The case study has only started in 2016. We would expect outcomes in the years to come.

**Primary 2019 outcome indicator(s):**

- # of equitable national/subnational food system policies enacted that take into consideration climate smart practices and strategies

**Link between outcome story and and the FP Outcome(s):** <Not Defined>

**Annex uploaded:**



## 5. Project outputs

### 5.1 Overview by MOGs

#### Major Output groups - 2019

**F1 (before F4 - Philip):** Priority setting contextualised with national stakeholders and capacity strengthened to apply outputs in policy formulation; including trade-off analyses, foresight activities, and quantification of regional socio-economic scenarios

**Brief bullet points of your expected annual 2019 contribution towards the selected MOG:** <Not Defined>

**Brief 2019 plan of the gender and social inclusion dimension of the expected annual output:** <Not Defined>

**F1 (before F4 - Philip):** Improved national planning processes through policy analyses, (re)formulation and implementation; and stakeholder analyses and engagement through scenarios, learning alliances and science-policy dialogues

**Brief bullet points of your expected annual 2019 contribution towards the selected MOG:** <Not Defined>

**Brief 2019 plan of the gender and social inclusion dimension of the expected annual output:** <Not Defined>

**F1 (before F4 - Philip):** Effective supra-national governance systems and equitable engagement mechanisms between international and regional/national stakeholders to influence global policy and strengthened capacities to integrate local priorities into global fora

**Brief bullet points of your expected annual 2019 contribution towards the selected MOG:** <Not Defined>

**Brief 2019 plan of the gender and social inclusion dimension of the expected annual output:** <Not Defined>

## Major Output groups - 2016

**F1 (before F4 - Philip):** Priority setting contextualised with national stakeholders and capacity strengthened to apply outputs in policy formulation; including trade-off analyses, foresight activities, and quantification of regional socio-economic scenarios

**Brief bullet points of your expected annual 2016 contribution towards the selected MOG:**

Research findings from network analysis, trade-off analysis, gender and policy analysis, applied information economics and scenario guided policy reviews are used to build capacity of Learning Alliance members and other target policy decision makers

**Brief summary of your actual 2016 contribution towards the selected MOG:** Recommendation on climate smart practices to be applied for specific environments were discussed with stakeholders. These practices include: AWD, use of stress-tolerant varieties, post-harvest technologies such as solar drier and Super bag. Priority setting tools are used to inform stakeholder and policy makers about options for scaling up these technologies.

**Brief 2016 plan of the gender and social inclusion dimension of the expected annual output:**

Women will be well represented in all capacity building activities. Findings and recommendations from the gender case studies implemented by the project in 2015 will be used to ensure that policies formulated are gender-sensitive. Gender activities will be aimed reducing inequalities and disparities.

**Summary of the gender and social inclusion dimension of the 2016 outputs:** Within the Rice Restructuring program of Vietnam, a major knowledge gap is to better understand the role of women and youth in promoting CSA through the land accumulation program (Small households, large fields model). A specific case study was designed on this topic in the Mekong and Red River deltas.

**F1 (before F4 - Philip):** Improved national planning processes through policy analyses, (re)formulation and implementation; and stakeholder analyses and engagement through scenarios, learning alliances and science-policy dialogues

**Brief bullet points of your expected annual 2016 contribution towards the selected MOG:**

-Better knowledge of decision making process: activities conducted during 2014 and 2015 have allowed the project to identify the key stakeholders at national and local levels. Influential stakeholders have been identified through NetMap approach. -The results of these activities will contribute to the engagement strategies to be used in 2016

**Brief summary of your actual 2016 contribution towards the selected MOG:** The PIRCCA project through its engagement activities has identified the key players that could influence climate policies. Moreover, priorities on climate changes and the key channels through which paradigm shift can occur have been identified. The strategic alliance will allow policy makers make informed decision in their national planning process.

**Brief 2016 plan of the gender and social inclusion dimension of the expected annual output:**

The engagement strategy to be implemented in 2016 will be gender-sensitive. Findings and recommendations from the gender case studies implemented by the project will be used to ensure that policies formulated are gender-sensitive.

**Summary of the gender and social inclusion dimension of the 2016 outputs:** The Rice restructuring program has already identified the key priorities for climate change issues in rice production until 2030. In order for this program to be implemented the priorities have to be converted in concrete actions at the provincial levels. Implementation in the provinces would require differentiation of gender roles.

**F1 (before F4 - Philip):** Effective supra-national governance systems and equitable engagement mechanisms between international and regional/national stakeholders to influence global policy and strengthened capacities to integrate local priorities into global fora

**Brief bullet points of your expected annual 2016 contribution towards the selected MOG:**

During the year 2016, the PIRCCA goal is to establish a strategic alliance to influence policies on climate change. The strategic alliance will operate through a platform of key institutions and partners at the level of ASEAN.

**Brief summary of your actual 2016 contribution towards the selected MOG:** The PIRCCA project has been in discussion with CIAT and IPSARD on the development of a "climate change policy hub" in South East Asia. If implemented, this hub will be a major step towards establishing the strategic alliance to influence policies on climate change in the SEA region.

**Brief 2016 plan of the gender and social inclusion dimension of the expected annual output:**

The proposed platform will be gender-sensitive. Women participation will be highly encouraged. The platform will contribute not only to knowledge sharing but also capacity building.

**Summary of the gender and social inclusion dimension of the 2016 outputs:** Gender issues on climate change effects in rice production has largely been documented. However, concrete gender action plans are lacking. The "climate policy hub" aims to propose gender action plans in promoting and scaling up CSA practices in SEA. Climate policies promoted under the proposed hub will be gender inclusive.

## Major Output groups - 2015

**F1 (before F4 - Philip):** Priority setting contextualised with national stakeholders and capacity strengthened to apply outputs in policy formulation; including trade-off analyses, foresight activities, and quantification of regional socio-economic scenarios

**Brief bullet points of your expected annual 2015 contribution towards the selected MOG:** <Not Defined>

**Brief summary of your actual 2015 contribution towards the selected MOG:** During the year 2015, a second round of stakeholders survey was organized to better understand their need on climate information for policy formulation, and also analysis tools that are deemed important for them to make decision on climate change challenges.

**Brief 2015 plan of the gender and social inclusion dimension of the expected annual output:** <Not Defined>

**Summary of the gender and social inclusion dimension of the 2015 outputs:** The gender report for Vietnam is available on the CCAFS website. The report for Myanmar is currently being drafted.

**F1 (before F4 - Philip):** Improved national planning processes through policy analyses, (re)formulation and implementation; and stakeholder analyses and engagement through scenarios, learning alliances and science-policy dialogues

**Brief bullet points of your expected annual 2015 contribution towards the selected MOG:** <Not Defined>

**Brief summary of your actual 2015 contribution towards the selected MOG:** The PIRCCA team participated in several consultation workshops with various stakeholders. Inputs from PIRCCA have been included in the proposal for the restructuring of the rice sector. In addition, the PIRCCA project has also initiated several activities to better understand the policy formulation mechanism and implementation process.

**Brief 2015 plan of the gender and social inclusion dimension of the expected annual output:** <Not Defined>

**Summary of the gender and social inclusion dimension of the 2015 outputs:** Case studies have been initiated in Vietnam and Myanmar to understand the gender differences in climate change perception and adaptation strategies. A report summarizing the findings of the Vietnam study is available on the CCAFS website.

**F1 (before F4 - Philip):** Effective supra-national governance systems and equitable engagement mechanisms between international and regional/national stakeholders to influence global policy and strengthened capacities to integrate local priorities into global fora

**Brief bullet points of your expected annual 2015 contribution towards the selected MOG:** <Not Defined>

**Brief summary of your actual 2015 contribution towards the selected MOG:** A workshop on climate-smart agriculture technologies in Asia was sponsored by UNEP and organized by PIRCCA. Participants from thirteen countries attended the workshop, which consisted of two days of presentations on technical, organizational, and financial aspects of CSA technologies. The workshop was also attended by several international and regional/national stakeholders.

**Brief 2015 plan of the gender and social inclusion dimension of the expected annual output:** <Not Defined>

**Summary of the gender and social inclusion dimension of the 2015 outputs:** The gender study in Vietnam revealed that although there was no apparent difference in climate change perception, adaptation strategies differ between men and women. The study also identified the most common climate stresses in different regions and also identify potential climate smart practices that can be considered in formulating policies.

## Major Output groups - 2014

**F1 (before F4 - Philip):** Improved national planning processes through policy analyses, (re)formulation and implementation; and stakeholder analyses and engagement through scenarios, learning alliances and science-policy dialogues

**Brief bullet points of your expected annual 2014 contribution towards the selected MOG:** <Not Defined>

**Brief summary of your actual 2014 contribution towards the selected MOG:** <Not Defined>

**Brief 2014 plan of the gender and social inclusion dimension of the expected annual output:** <Not Defined>

**Summary of the gender and social inclusion dimension of the 2014 outputs:** <Not Defined>

**F1 (before F4 - Philip):** Effective supra-national governance systems and equitable engagement mechanisms between international and regional/national stakeholders to influence global policy and strengthened capacities to integrate local priorities into global fora

**Brief bullet points of your expected annual 2014 contribution towards the selected MOG:** <Not Defined>

**Brief summary of your actual 2014 contribution towards the selected MOG:** <Not Defined>

**Brief 2014 plan of the gender and social inclusion dimension of the expected annual output:** <Not Defined>

**Summary of the gender and social inclusion dimension of the 2014 outputs:** <Not Defined>

**F1 (before F4 - Philip):** Priority setting contextualised with national stakeholders and capacity strengthened to apply outputs in policy formulation; including trade-off analyses, foresight activities, and quantification of regional socio-economic scenarios

**Brief bullet points of your expected annual 2014 contribution towards the selected MOG:** <Not Defined>

**Brief summary of your actual 2014 contribution towards the selected MOG:** <Not Defined>

**Brief 2014 plan of the gender and social inclusion dimension of the expected annual output:** <Not Defined>

**Summary of the gender and social inclusion dimension of the 2014 outputs:** <Not Defined>

## 5.2 Deliverables

### D645 - Training of Trainers

#### Main Information

**Type:** Training materials

**Subtype:** Lecture/Training Course Material

**Status:** Complete

**Year of expected completion:** 2016

**New expected year:** 2017

#### Cross-cutting dimension:

- Gender
- Youth
- Capacity Development

#### Gender level(s):

- Collection of sex-disaggregated data
- Analysis of sex-disaggregated data
- Diagnostics/analysis to understand gender issues
- Development of innovations/ interventions/ policies with explicit gender targeting
- Monitoring/impact assessment of gender outcomes of research/innovations/interventions/policies

#### Deliverable dissemination

**Is this deliverable already disseminated:** No

**Open access:** Yes

**License adopted:** No

#### Deliverable Metadata

**Disseminated title:** <Not Defined>

**Description / Abstract:** <Not Defined>

**Publication / Creation date:** <Not Defined>

**Language:** <Not Defined>

**Country:** <Not Defined>

**Keywords:** <Not Defined>

**Citation:** <Not Defined>

**Handle:** <Not Defined>

**DOI:** <Not Defined>

**Creator / Authors:** <Not Defined>

#### Deliverable Quality check

**FAIR Compliant:** F A I R

## Deliverable Data sharing

### Deliverable files:

<http://www.irri.org>

### Partners contributing to this deliverable:

Institution	Partner	Type
IRRI - International Rice Research Institute	Pede, Valerien <v.pede@irri.org>	Responsible
IRRI - International Rice Research Institute	Setiyono, Tri <t.setiyono@irri.org>	Other
Yezin Agricultural University	Hseng Hom, Nang <nanghsenghom@gmail.com>	Other
IPSARD - Institute of Policy and Strategy for Agriculture and Rural Development	Huong, Do Lien <lienhuongdo@yahoo.com>	Other
VNUA - Vietnam National University of Agriculture	Ngoc, Ninh <hongocninh@gmail.com>	Other



## D1853 - Gender desegregated data on climate change perception and adaptation strategies (Myanmar)

### Main Information

**Type:** Data, models and tools

**Subtype:** Database/Dataset/Data documentation

**Status:** Complete

**Year of expected completion:** 2015

**New expected year:** 2016

**Cross-cutting dimension:**

- Gender
- Youth
- Capacity Development

**Gender level(s):**

- Collection of sex-disaggregated data
- Analysis of sex-disaggregated data

### Deliverable dissemination

**Is this deliverable already disseminated:** Yes

**Dissemination URL:**

**Dissemination Channel:** Other

<http://ricestat.irri.org/fhsd/php/survey.php?page=4>

**Open access:** Yes

**License adopted:** No

### Deliverable Metadata

**Disseminated title:** <Not Defined>

**Description / Abstract:** <Not Defined>

**Publication / Creation date:** <Not Defined>

**Language:** <Not Defined>

**Country:** <Not Defined>

**Keywords:** <Not Defined>

**Citation:** <Not Defined>

**Handle:** <Not Defined>

**DOI:** <Not Defined>

**Creator / Authors:** <Not Defined>

### Deliverable Quality check

**FAIR Compliant:** F A I R

**Process of data quality assurance:** <Not Defined>

**Data dictionary:** <Not Defined>

**Are the tools used for data collection available:** <Not Defined>

**Partners contributing to this deliverable:**

Institution	Partner	Type
Yezin Agricultural University-Myanmar (Burma)	Hseng Hom, Nang <nanghsenghom@gmail.com>	Responsible

## 5.3 Project Highlights

Project highlight 233	
<b>Title:</b> The 'New Deal' on Climate Change and the Implications for ASEAN	
<b>Author:</b> Valerien Pede and Reiner Wassmann	<b>Subject:</b> Climate change policies
<b>Publisher:</b>	<b>Year reported:</b> 2016
<b>Project highlights types:</b> <ul style="list-style-type: none"> <li>• Successful communications</li> <li>• Policy engagement</li> </ul>	<b>Is global:</b> No
<b>Start date:</b> Jan 2016	<b>End date:</b> Dec 2016
<b>Keywords:</b> COP 21, climate change policies, South East Asia, Intended Nationally Determined Contributions (INDCs), mitigation, adaptation	<b>Countries:</b> Philippines, Myanmar (Burma), Indonesia, Cambodia, Vietnam, Malaysia, Lao PDR, Brunei Darussalam, Thailand, Singapore
<b>Highlight description:</b> This keynote presentation addresses the new deals on climate change policies after COP 21 summit and their implications for ASEAN countries.	
<b>Introduction / Objectives:</b> The presentation discusses: - the Climate change effects relevant for rice production, - the various technologies to cope with climate change challenges (AWD, stress-tolerant varieties, post-harvest technologies etc) - the Significance of rice fields for GHG budget and the Carbon Footprint of rice for various activities along the value chain - the Intended Nationally Determined Contributions (INDCs) for ASEAN countries - the various opportunities available for climate funding - The implications of the Paris agreement for ASEAN countries.	
<b>Results:</b> Almost all ASEAN member states mention rice production for adaptation and mitigation in their Intended Nationally Determined Contributions (INDCs), but with very different contents and forms. The presentation suggest the idea of developing a common INDC for all ASEAN, which will allows for better harmonization of climate change policies across the region. The following implications for the ASEAN countries were discussed: 1- Synergies for promoting 'Good Agriculture Practice' as main pillar of 'Climate-smart Agriculture' 2- Attention on agriculture may result in higher investments in rural development, eg advanced irrigation infrastructures 3- Opportunities for regional collaboration and possibly new roles for ASEAN 4- Strong Need for capacity building for national research scientists and also stakeholders The following pitfalls were also highlighted: 1- Allocation of official development assistance (ODA) funds to climate change may result in less funds available for other development issues 2- Potential conflicts of mitigation (and to lesser extent adaptation) projects may arise with other concerns, eg hydropower projects in indigenous areas 3- Possible differentiation among ASEAN countries (special programs for Least Developed Countries; different capabilities to deal with complex application procedures) The final take home message was delivered as follows: Scientific findings and publications will not be sufficient as such to stimulate mitigation, but should be translated into clear spatial and temporal priorities at different scales.	
<b>Partners:</b> - IRRI - IPSRAD	
<b>Links / Sources for further information:</b> <a href="http://fanres.ub.ac.id/">http://fanres.ub.ac.id/</a>	

## Project highlight 234

**Title:** Gender differences in climate change perception and adaptation strategies: A case study on three provinces in Vietnam's Mekong River Delta

**Author:** McKinley J., Adaro C., Pede V., Setiyono, T. Tran C.T., Do L.H. Nguyen T.K. Quicho E Sheinkman, Michael Wassmann, R.

**Subject:** Gender and social inclusion

**Publisher:**

**Year reported:** 2016

**Project highlights types:**

- Gender and social inclusion
- Participatory action research

**Is global:** No

**Start date:** Jan 2016

**End date:** Dec 2016

**Keywords:** gender perception, adaptation strategies, households, climate change

**Countries:** Vietnam

**Highlight description:** This brief summarizes the findings of a project output for the Policy Information and Response Platform on Climate Change and Rice in ASEAN and its Member Countries (PIRCCA), being implemented by the International Rice Research Institute (IRRI). The report focuses on the results of the survey conducted in the first half of 2015 on climate change perception and adaptation strategies of male and female farmers in three selected provinces across the Mekong River Delta (MRD) region in Vietnam: An Giang, Bac Lieu, and Tra Vinh. The survey gathered information on current climate change perceptions and adaptation strategies and gaps between the identified male and female respondents.

**Introduction / Objectives:** The goal of this study is to provide better understanding of intra-household difference in perception of climate change severity and adaptation strategies.

**Results:** The major findings are summarized below: 1- All survey participants in the study have witnessed a change in weather in the last 10 years. Most notably, temperatures have increased and become more variable while precipitation has decreased and become more variable. 2- Perceptions of climate change in Vietnam do not appear to be individual but rather disaggregated at the household level (at the most finite level) or possibly at the landscape level. 3- Perceived impacts of stress by male and female respondents are quite similar, which may indicate that stress is managed at the household level rather than at the individual level. 4- Further gender research in Vietnam should focus on adaptation and coping strategies during climate change stress as it appears that gender differences are most present in this area. 5- To cope with climate change issues, farmers need: (1) rice varieties that are tolerant to stresses such as heat, drought, and salinity; (2) pest management training; and (3) crop production management training. 6- Challenges related to climate change faced by individual households are likely to be the same challenges as their neighbors. Thus, future climate change studies in Vietnam should also include spatial analysis

**Partners:** IPSARD IRRI

**Links / Sources for further information:** <https://cgspace.cgiar.org/rest/bitstreams/81790/retrieve>

## 6. Activities

### A120 - Collection & analysis of primary and secondary data for implications to government policies.

**Description:** Activity includes analysis of data (integrated climate and crop modelling to generate food poverty maps for Myanmar, integrated flood mapping and adaptation policy for Vietnam and Myanmar) and analyzing household survey data in terms of perceptions of climate change, including trainings of next users in data analysis. Further, the expansion of the Rice Knowledge Bank to take into consideration climate change aspects and policy as well as technical implications are also included in this activity. Through forging strategic alliances, capacity building shall be supported in NARES and ASEAN scientists in collaboration with SEARCA and other CGIAR centers working in the same area. The bilateral activity will consist of modeling impacts of seasonal climate variability on agricultural output and food security: integrating seasonal climate forecasts, process-based crop models, and socioeconomic models.

**Start date:** Jan 2015

**End date:** Jul 2017

**Activity leader:** IRRI - International Rice Research Institute Pede, Valerien <[v.pede@irri.org](mailto:v.pede@irri.org)>

**Status:** On-going

**Overall activity or progress made during this cycle:** Given the budget cut in 2016, some of the planned activities could not be implemented. Meanwhile the project was able to make significant progress on this activity. 1- Data analysis on socio-economic surveys conducted in the Mekong River Delta (Vietnam) and the Ayeyawardy region (Myanmar). This includes gender surveys on household perception of climate change and their adaptation strategies 2- Several case studies have been organized in the Mekong River Delta (Vietnam) and the Ayeyawardy region (Myanmar) to inform policy. 3- Capacity building of national research scientists on methodologies for socio-economic data analysis, climate data analysis, and gender research 4- Presentation at national and international policy forums. 5- Field experiments on climate smart practices in rice production 6- Development of decision tools for cost-benefit analysis in rice production 7- Report and info notes were published on the CCAFS website. In addition, 2 manuscripts are currently under review in peer-reviewed journals

**Deliverables in this activity:**

- D645: Training of Trainers
- D1850: Training workshop on analyzing gender desegregated data on household climate change perception
- D1851: Keynote presentations on current climate change policies and implications for ASEAN member states
- D1852: Gender desegregated data on climate change perception and adaptation strategies (Vietnam)
- D1853: Gender desegregated data on climate change perception and adaptation strategies (Myanmar)

## A298 - Strategic alliances for paradigm adjustments in policy

**Description:** Activity includes demonstrating case studies as main communication product to influence policy makers at sub-national level, identifying opportunities and strategies for delivery of communication to policymakers at sub-national level, facilitating alliance to impact policy making at the national level, and strengthening the engagement with ASEAN Technical Working Group for scaling up at the regional level.

**Start date:** Jun 2015

**End date:** Dec 2017

**Activity leader:** IRRI - International Rice Research Institute Pede, Valerien <v.pede@irri.org>

**Status:** On-going

**Overall activity or progress made during this cycle:** 1- Several engagement activities were conducted at the national and provincial levels in Vietnam and Myanmar. Presentation were also made at national and international levels on climate change issues 2- The PIRCCA project participated in the consultation meeting during the drafting of the proposal for restructuring of rice sector. 3- PIRCCA assisted Vietnam and Myanmar in developing their SBSTA. 4- After COP21, Vietnam and Myanmar have successfully submitted their INDCs. Governments in these countries are now interested in knowing about the implications for agriculture and rice production in particular. Engagement activities from PIRCCA in 2016 also focus on discussing with stakeholders and policy makers on these important topics. These discussions also include the development of decision support tools to allow stakeholders and policy makers decide on options. 5- During 2016, the PIRCCA project team engaged in discussion with CIAT-ASIA climate policy experts on the development of a "climate policy hub".

### **Deliverables in this activity:**

- D1851: Keynote presentations on current climate change policies and implications for ASEAN member states
- D1094: Dissemination roadmaps and decision support tools at regional levels
- D1010: Manuscripts under review in peer-reviewed journals
- D1093: Dissemination roadmaps and decision support tools through key informant meetings across scales and national levels

## 7. Leverages

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No leverages added

**Title:** Assessing incentives for scaling up mitigation at different stakeholder levels: 'No-regret' mitigation strategies in rice production

## 1. Description

Start date	End date	Management liaison	Mgmt. liaison contact
Jan 2015	Dec 2018	RP SEA	Tan Yen, Bui <y.bui@irri.org>

Funding source types	Status	Lead Organization	Project leader
W1/W2, Bilateral	On-going	IRRI - International Rice Research Institute - Philippines	Wassmann, Reiner <r.wassmann@irri.org>

### Project is working on

Flaship(s)
F3 (Lini): Low emissions development

Region(s)
SEA: Southeast Asia

### Project summary

The project will evaluate and highlight co-benefits of mitigation options and integrate AWD into a farming strategy. This approach will accelerate scaling up of mitigation by tackling different stakeholder levels, from farmers and extension services to national policy makers. At farmer level, the project will assess agronomic advantages in crop performance through participatory field testing. Both women and men farmers – while recognizing their different roles and needs – will be given the same opportunity to be involved in field testing and evaluation of the technologies. New flexible training materials will be developed in local languages. At policy level, this methodology aims to support policy makers in justifying mitigation goals by arguing in favor of benefits for farmers. National climate change action plans will be supported through evaluation of NAMAs as option for upscaling.



## 2. Partners

### Partner #1 (Leader)

**Institution:** IRRI - International Rice Research Institute

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Project Leader	Wassmann, Reiner <r.wassmann@irri.org>	Activity 2014-210 *Leader*. Activity 2014-254 *Leader*.	HQ
Project Coordinator	Sander, Bjoern Ole <b.sander@irri.org>	Activity 2014-121 *Leader*.	HQ

### Partner #2

**Institution:** Cantho University-Vietnam

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	Thanh Truc, Ngo Thi <nttttruc@ctu.edu.vn>	Activity 2014-121 *Partner*. Activity 2014-254 *Partner*.	HQ

### Partner #3

**Institution:** VAAS - Vietnamese Academy of Agricultural Sciences

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	VAN TRINH, MAI <maivantrinh@gmail.com>	Activity 2014-210 *Partner*.	HQ

## Partner #4

**Institution:** James Hutton Institute-United Kingdom

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	Matthews, Robin <robin.matthews@hutton.ac.uk>	Activity 2014-254 *Partner*.	HQ

## Partner #5

**Institution:** HUAF - Hue University of Agriculture and Forestry

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	Dang, Hoa Tran <trandanghoa@huaf.edu.vn>	GHG analysis in Vietnam for project site in MRD. Has best GHG lab in Vietnam.	HQ

## Partner #6

**Institution:** UAF - Nong Lam University

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	Thuy, Nguyen Ngoc <nnthuy@hcmuaf.edu.vn>	conducting field experiments	HQ

## Partner #7

**Institution:** IPSARD - Institute of Policy and Strategy for Agriculture and Rural Development

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	Tran, Nghia Dai <tran.nghiadai99@gmail.com>	Involved in bilateral projects supporting P21	HQ

## Lessons regarding your partnerships and possible implications for the coming planning cycle:

Year	Lesson(s)
2016	NLU: after some initial problems happy with performance. Will continue (maybe intensify in 2017) HUAF: very happy with performance. Best GHG analysis lab in VN. Will keep engaged in 2017. CTU: Generally no great performance. Probably very limited role in 2017. IPSARD: Good performance. Provides valuable input. Critical and creative partner. Hutton Inst.: Unfortunately, the joint proposal writing has not been successful. VAAS (IAE): Important partner for upscaling.

## Partnerships overall over the last reporting period:

Generally, it's very important to work with partners in Vietnam. It's not possible to get around or achieve outcomes without strong partners. Data collection, however, is often difficult through partners and reports are generally poorly written so that work through partners adds a lot of work to the lead scientist too.

## 3. Locations

This project is not global

Project level	Latitude	Longitude	Name
Climate Smart Village Sites	9.369	105.672	Tra Hat
Country			Vietnam

## 4. Outcomes

### 4.1 Project Outcomes

#### Project Outcome statement:

Participatory mitigation selection is an effective means to learn how farmers decide freely on low-emission crop management options that are locally suitable. This will also allow quantitative evaluation of co-benefits of mitigation techniques (agronomic and economic). This farmer-oriented implementation pathway in combination with highlighting benefits will lead to a step-by-step increase of adoption. The distinct links to IRRI's FP4 project and its CCAC project will assure well established networks to be taken advantage of in order to reach out to policy makers. By strengthening extension services (through training materials and workshops), local decision makers will be enabled to successfully implement mitigation technologies. Ownership of national partners is crucial to achieve the necessary buy-in. Therefore, all products of this project will be developed together with national partners and will indicate the respective national partner as lead organization.

**Annual progress towards outcome (end of 2016\*):** • National CC action plans analyzed (Contribution to National CC action plans) • Bio-physical suitability for different mitigation options analyzed and mapped (Contribution to National CC action plans) • Local stakeholder maps with consideration of gender and other social factors identified with decision makers that are key to implementing mitigation options (Regional outscaling) • Capacity of extension services strengthened in collaboration with the Directorate of Water Resources for effective implementation of AWD (Regional outscaling)

**Annual progress towards project outcome in the current reporting cycle (2016\*):** National climate change action plans of Vietnam and the Philippines have been analyzed in a collaboration with Searca with a focus on mitigation and entry points for interventions. A technical report has been written which has not yet been communicated to national partners. Biophysical suitability maps for AWD and short-duration rice varieties have been produced by IRRI in collaboration with IAE. Initial maps have received feedback from partners and will be refined in 2017 including additional bio-physical factors. Local stakeholder maps have been produced using the NetMap approach focusing on key stakeholders for implementation of AWD in the Red River as well as in the Mekong River Delta. Capacity strengthening of extension services is still ongoing. So far, existing training material for AWD has been collected. An online information kiosk has been launched where material around mitigation in rice can be found.

#### How communication and engagement activities have contributed to achieving your Project outcomes:

\* To help achieve project outcomes, complementary communication activities particularly in various online platforms were implemented to further raise awareness and provide relevant information on climate change mitigation in rice production system. The completed information kiosk (<http://GHGmitigation.irri.org>) features climate change adaptation and mitigation practices and technologies, tools for GHG emissions measurement, CSA concepts and approaches, news blogs written in-house and by mainstream media, and knowledge products that are either produced by IRRI scientists or others and contain valuable information on mitigation.

#### Evidence documents of progress towards outcomes:

<https://marlo.cgiar.org/data/ccafs/projects//21/projectOutcome/Links%20to%20communication%20mat>

[erial.docx](#)

**Annual progress towards outcome (end of 2015):** • Field experiments on PMS implemented for the first 2 years (2015 and 2016) to test the viability and acceptability of the different mitigation option

**Annual progress towards outcome (end of 2017):** • Synergies between mitigation technologies and modernization defined and sound policy advice given to VN on rice production restricting and roadmap for implementation of 20-20-20 decision in the rice subsector (Contribution to National CC action plans) Training materials (decision guide on flexible mitigation targets) developed (Regional outscaling) • 'Proof of concept' of mitigation potential at field level will be made available together with the evaluation of co-benefits of doing mitigation options (PMS)

**Annual progress towards outcome (end of 2018):** • Comprehensive data analysis on crop performance vis a vis mitigation potential from the PMS will inform the development of 'rice component' for NAMA (regional outscaling) • Validated and refined suitability maps (in space and time) of different mitigation options for effective targeting (regional outscaling)

**lessons regarding your Theory of Change and implications for the coming planning cycle; e.g. how have your assumptions changed, or do you have stronger evidence for them:\*** <Not Defined>

## 4.2 CCAFS Outcomes

**RP SEA Outcome 2019:** Public sector institutions, innovate, plan, invest, regulate/reform/enforce laws and provide incentives for understanding, accessing and implementing low-emission/CSA technologies appropriate for local contexts through multi-stakeholder consultation.

**Indicator #1:** # of low emissions plans developed that have significant mitigation potential for 2025, i.e. will contribute to at least 5% GHG reduction or reach at least 10,000 farmers, including at least 10% women.

2019
<p><b>Target value:</b> 3</p> <p><b>Cumulative target to date:</b> 3</p> <p><b>Target narrative:</b> One in each country (VN, LAO, CAM)</p> <p><b>The expected annual gender and social inclusion contribution to this CCAFS outcome:</b> &lt;Not Defined&gt;</p>
2015
<p><b>Target value:</b> 0</p> <p><b>Cumulative target to date:</b> 0</p> <p><b>Target narrative:</b> Project will have yet to build up the evidence-based feasibility and benefits of mitigation options.</p> <p><b>The expected annual gender and social inclusion contribution to this CCAFS outcome:</b> &lt;Not Defined&gt;</p>

## 2016

**Target value:** 0

**Cumulative target to date:** 0

**Target achieved:** 1.0

**Target narrative:** Project will have yet to build up the evidence-based feasibility and benefits of mitigation options.

**Narrative for your achieved targets, including evidence:** Contributed to Vietnam's NDC development incl. refined targets for area under AWD and mitigation potential. CCAFS and CCAC are mentioned in the minutes protocol and are acknowledged for giving strong support. See outcome case study for details.

**Narrative for your achieved annual gender and social inclusion contribution to this CCAFS outcome:** Activities are still ongoing.

**The expected annual gender and social inclusion contribution to this CCAFS outcome:** The participatory action research under this project will allow for gender-disaggregated adjustments of mitigation technology dissemination

**Indicator #2:** # millions of hectares targeted by research-informed initiatives for scaling up low-emissions agriculture and preventing deforestation

## 2019

**Target value:** 0.5 Mha

**Cumulative target to date:** Cannot be Calculated

**Target narrative:** Mainly through the CCAC component

**The expected annual gender and social inclusion contribution to this CCAFS outcome:** <Not Defined>

## 2015

**Target value:** 0

**Cumulative target to date:** 0

**Target narrative:** Project will have yet to build up the evidence-based feasibility and benefits of mitigation options.

**The expected annual gender and social inclusion contribution to this CCAFS outcome:** <Not Defined>



## 2016

**Target value:** 0.001

**Cumulative target to date:** Cannot be Calculated

**Target achieved:** 0.0

**Target narrative:** Through work in the CSVs

**Narrative for your achieved targets, including evidence:** Pilot project on AWD in collaboration with local DARD being supported by CCAFS in central Vietnam (Hue province).

**Narrative for your achieved annual gender and social inclusion contribution to this CCAFS outcome:** Activities still ongoing.

**The expected annual gender and social inclusion contribution to this CCAFS outcome:** The participatory action research under this project will allow for gender-disaggregated adjustments of mitigation technology dissemination

### Major Output groups:

- F3 (Lini): Decision support for identifying and prioritizing low-emissions CSA options, including synergies and tradeoffs with development objectives
- F3 (Lini): Incentives and innovations for scale-up of low-emissions practices and avoided deforestation by agricultural commodities

### 4.3 Other Contributions

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#### **Contribution to other CCAFS Impact Pathways:**

<Not Defined>

#### **Collaborating with other CRPs**

<This project does not have a CRP selected yet.>

## 4.4 Case Studies

### Case Study #92

**Title:** Paddy rice project supports Vietnam's move from INDC to NDC

**Year:** 2016

**Project(s):** P21

**Outcome Statement:** Decision makers in the Vietnamese MARD included AWD in their NDC as key mitigation technologies in the agriculture sector. With CCAFS and CCAC support, the Paddy Rice Component work was presented during the 2nd Consultative Meeting on the INDCs of Vietnam's agriculture sector. Attended by government officials and scientists this event provided a fitting avenue for providing input into implementation plans for priority mitigation measures. CCAFS and CCAC input was acknowledged as highly important in the minutes of the workshop.

**Research Outputs:** In 2015 and 2016, a series of workshops have been conducted in Vietnam to identify opportunities for AWD implementation as well as barriers of adoption. A national working group has been established to drive the scale-out process of water saving technologies in rice and to conveyed key findings to decision makers, particularly in MARD. Furthermore, climatic AWD suitability maps have been created together with IAE and key stakeholders in different provinces have been mapped together with IPSARD in order to guide the dissemination process. The new mitigation kiosk (<http://GHGmitigation.irri.org>) has been launched as a one-stop shop for all types of information around mitigation in rice.

**Research Partners:** Institute of Agricultural Environment (IAE) Institute of Policy and Strategy for Agriculture and Rural Development (IPSARD)

**Activities:** Support in the INDC initiatives serves as entry points for influencing and mainstreaming CSA options in the mitigation agenda in agriculture. CCAFS and CCAC supported the 2nd Consultative Meeting on Vietnam's INDC which was held on 23 June 2016 in Hanoi. The Paddy Rice Component work was presented during this planning workshop. Core project partners of the national working group established within the CCAFS project actively participated in this exercise. Former dissemination targets of AWD and the related technology "mid-season drainage" and their adjustment have been discussed between the CCAFS project leader and IAE in preparation of the consultative meeting. Participation in several national and international workshops and meetings as well as constant and continued engagement with national partners paved the ground for this outcome.

**Non-Research Partneres:** None

**Output Users:** Vietnam's Ministry of Agriculture and Rural Development (MARD)

**Evidence Outcome:** CCAFS and CCAC input was acknowledged as highly important in the minutes of the workshop (see annex).

**Output Used:** Members of the national working groups have conveyed Opportunities for Practice Change (OPCs) from project work shops. The climatic AWD suitability maps have received great interest and important feedback. They will be adjusted and improved to become integral part of the dissemination process.

## References Case:

<https://ccafs.cgiar.org/blog/viet-nams-agriculture-sector-hastens-emissions-mitigation-joins-global-climate-deal#.WKpU3W995hF>

<https://ccafs.cgiar.org/publications/workshop-report-applying-and-scaling-alternate-wetting-and-drying-technology-paddy-rice#.WKqJmm995hE>

<https://ccafs.cgiar.org/publications/workshop-report-national-planning-phase-1-ccac-paddy-rice-component-vietnam#.WKqJqG995hE>

<https://ccafs.cgiar.org/news/mapping-partners-right-lesson-stakeholder-engagement-vietnam#.WKqJ9m995hE>

<https://ccafs.cgiar.org/publications/climate-determined-suitability-water-saving-technology-alternate-wetting-and-drying#.WKqKNm995hE> <http://GHGmitigation.irri.org>

## Primary 2019 outcome indicator(s):

- # of low emissions plans developed that have significant mitigation potential for 2025, i.e. will contribute to at least 5% GHG reduction or reach at least 10,000 farmers, including at least 10% women.

**Link between outcome story and the FP Outcome(s):** <Not Defined>

## Annex uploaded:

[https://marlo.cgiar.org/data/ccafs/projects//21/caseStudy/minutes\\_national%20INDC%20workshop%20Vietnam\\_June%202016.docx](https://marlo.cgiar.org/data/ccafs/projects//21/caseStudy/minutes_national%20INDC%20workshop%20Vietnam_June%202016.docx)

## 5. Project outputs

### 5.1 Overview by MOGs

#### Major Output groups - 2019

**F3 (Lini):** Incentives and innovations for scale-up of low-emissions practices and avoided deforestation by agricultural commodities

**Brief bullet points of your expected annual 2019 contribution towards the selected MOG:** <Not Defined>

**Brief 2019 plan of the gender and social inclusion dimension of the expected annual output:** <Not Defined>

**F3 (Lini):** Decision support for identifying and prioritizing low-emissions CSA options, including synergies and tradeoffs with development objectives

**Brief bullet points of your expected annual 2019 contribution towards the selected MOG:** <Not Defined>

**Brief 2019 plan of the gender and social inclusion dimension of the expected annual output:** <Not Defined>

#### Major Output groups - 2016

**F3 (Lini):** Incentives and innovations for scale-up of low-emissions practices and avoided deforestation by agricultural commodities

**Brief bullet points of your expected annual 2016 contribution towards the selected MOG:** - this project will investigate benefits and incentives for farmers for taking up the AWD technology - the project will explore a new participatory approach to scale-up mitigation technologies in rice production

**Brief summary of your actual 2016 contribution towards the selected MOG:** Agronomic and economic incentives for farmers to adopt AWD are being analyzed within this FP3 project. In coordination with the associated CCAC project, farmers' perceptions are being analyzed and new dissemination strategies are being developed.

**Brief 2016 plan of the gender and social inclusion dimension of the expected annual output:** Participatory mitigation selection will include women farmers and allow for gender-specific feedback and adjustment of mitigation technologies

**Summary of the gender and social inclusion dimension of the 2016 outputs:** A study on how to address gender-related questions in this project has been conducted by Cathy Farnworth. She gave detailed recommendations for each project activity. Women participate in the field experiment.

**F3 (Lini):** Decision support for identifying and prioritizing low-emissions CSA options, including synergies and tradeoffs with development objectives

**Brief bullet points of your expected annual 2016 contribution towards the selected MOG:** -

AWD suitability maps will allow for spatial and temporal prioritization in terms of resource allocation - agent based modeling will help understand decision making processes

**Brief summary of your actual 2016 contribution towards the selected MOG:** Agronomic and economic incentives for farmers to adopt AWD are being analyzed within this FP3 project. In coordination with the associated CCAC project, farmers' perceptions are being analyzed and new dissemination strategies are being developed.

**Brief 2016 plan of the gender and social inclusion dimension of the expected annual output:** through stakeholder analysis as one activity in the agent based modeling activity a gender-balanced stakeholder map will be built

**Summary of the gender and social inclusion dimension of the 2016 outputs:** A study on how to address gender-related questions in this project has been conducted by Cathy Farnworth. She gave detailed recommendations for each project activity. Women participate in the field experiment.

## Major Output groups - 2015

**F3 (Lini):** Incentives and innovations for scale-up of low-emissions practices and avoided deforestation by agricultural commodities

**Brief bullet points of your expected annual 2015 contribution towards the selected MOG:** <Not Defined>

**Brief summary of your actual 2015 contribution towards the selected MOG:** Agronomic and economic incentives for farmers to adopt AWD are being analyzed within this FP3 project. In coordination with the associated CCAC project, farmers' perceptions are being analyzed and new dissemination strategies are being developed.

**Brief 2015 plan of the gender and social inclusion dimension of the expected annual output:** <Not Defined>

**Summary of the gender and social inclusion dimension of the 2015 outputs:** A study on how to address gender-related questions in this project has been conducted by Cathy Farnworth. She gave detailed recommendations for each project activity. Women participate in the field experiment.

**F3 (Lini):** Decision support for identifying and prioritizing low-emissions CSA options, including synergies and tradeoffs with development objectives

**Brief bullet points of your expected annual 2015 contribution towards the selected MOG:** <Not Defined>

**Brief summary of your actual 2015 contribution towards the selected MOG:** A workshop has been conducted in which stakeholders from different provinces identified different actors who influence the adoption of AWD, specified the links between actors and ranked their influence. This will be used to develop targeted engagement strategies and simulate complex stakeholder networks.

**Brief 2015 plan of the gender and social inclusion dimension of the expected annual output:** <Not Defined>

**Summary of the gender and social inclusion dimension of the 2015 outputs:** Women actively participated in the workshop and contributed to the stakeholder influence maps.

## Major Output groups - 2014

**F3 (Lini):** Incentives and innovations for scale-up of low-emissions practices and avoided deforestation by agricultural commodities

**Brief bullet points of your expected annual 2014 contribution towards the selected MOG:** <Not Defined>

**Brief summary of your actual 2014 contribution towards the selected MOG:** Agronomic and economic incentives for farmers to adopt AWD are being analyzed within this FP3 project. In coordination with the associated CCAC project, farmers' perceptions are being analyzed and new dissemination strategies are being developed.

**Brief 2014 plan of the gender and social inclusion dimension of the expected annual output:** <Not Defined>

**Summary of the gender and social inclusion dimension of the 2014 outputs:** A study on how to address gender-related questions in this project has been conducted by Cathy Farnworth. She gave detailed recommendations for each project activity.

**F3 (Lini):** Decision support for identifying and prioritizing low-emissions CSA options, including synergies and tradeoffs with development objectives

**Brief bullet points of your expected annual 2014 contribution towards the selected MOG:** <Not Defined>

**Brief summary of your actual 2014 contribution towards the selected MOG:** <Not Defined>

**Brief 2014 plan of the gender and social inclusion dimension of the expected annual output:** <Not Defined>

**Summary of the gender and social inclusion dimension of the 2014 outputs:** <Not Defined>

## 5.2 Deliverables

### D1186 - Bio-physical suitability for different mitigation options analyzed and mapped

#### Main Information

**Type:** Data, models and tools

**Subtype:** Maps/Geospatial data

**Status:** Complete

**Year of expected completion:** 2016

**New expected year:** <Not Defined>

**Cross-cutting dimension:**

- Capacity Development

#### Deliverable dissemination

**Is this deliverable already disseminated:** No

**Open access:** Yes

**License adopted:** No

#### Deliverable Metadata

**Disseminated title:** <Not Defined>

**Description / Abstract:** <Not Defined>

**Publication / Creation date:** <Not Defined>

**Language:** <Not Defined>

**Country:** <Not Defined>

**Keywords:** <Not Defined>

**Citation:** <Not Defined>

**Handle:** <Not Defined>

**DOI:** <Not Defined>

**Creator / Authors:** <Not Defined>

#### Deliverable Quality check

**Process of data quality assurance:** <Not Defined>

**Data dictionary:** <Not Defined>

**Are the tools used for data collection available:** <Not Defined>

#### Deliverable Data sharing

**Deliverable files:**

<Not Defined>

**Partners contributing to this deliverable:**

Institution	Partner	Type
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# IRRI-F3 (Lini)-SEA-P21 - Research Project

Submitted on 2017-02-20 at 09:10 (Reporting cycle 2016)



RESEARCH PROGRAM ON  
Climate Change,  
Agriculture and  
Food Security



VAAS - Vietnamese Academy of  
Agricultural Sciences

VAN TRINH, MAI  
<maivantrinh@gmail.com>

Responsible

## D1187 - Local stakeholder maps with identified decision makers that are key to implementing mitigation options

### Main Information

**Type:** Reports and other publications

**Subtype:** Research workshop report

**Status:** Complete

**Year of expected completion:** 2016

**New expected year:** 2017

**Cross-cutting dimension:**

- Capacity Development

### Deliverable dissemination

**Is this deliverable already disseminated:** No

**Open access:** Yes

**License adopted:** No

### Deliverable Metadata

**Disseminated title:** Stakeholder influence mapping workshop on the adoption of AWD in Vietnam

**Description / Abstract:** Mapping stakeholders and their influence on eventual upscaling and outscaling of AWD adoption in Vietnam was identified as a potentially efficient method for eliciting the dynamics among government, private sector, non-government, farmers and other sectors that stand to be affected by or affect adoption of the technology. Net-Map (see boxed section below) was identified as the tool to use, upon recommendation by Tony Lambino, head of communication at IRRI and certified Net-Map facilitator. Mr. Lambino had been involved in strategic communication and capacity building activities for IRRI's climate change research initiatives, particularly for Climate Change, Agriculture and Food Security (CCAFS)-Southeast Asia. He also provides guidance to Bernadette Joven, CCAFS communication officer based at IRRI. Net-Map helps participants map influence networks and determine future action based on insights derived from the resulting maps by asking questions such as: Who is involved? How are they linked? How supportive are they? How influential are they? What can we do? The ensuing discussion and how participants get to a consensus (process) is just as important as the resulting influence maps and action points (products) to the overall effectivity of the exercise.

**Publication / Creation date:** <Not Defined>

**Language:** English

**Country:** Vietnam

**Keywords:** <Not Defined>

**Citation:** <Not Defined>

**Handle:** <Not Defined>

**DOI:** <Not Defined>

**Creator / Authors:** <Not Defined>

### Deliverable Quality check

**FAIR Compliant:** **F** **A** **I** **R**

## Deliverable Data sharing

**Deliverable files:**

<Not Defined>

**Partners contributing to this deliverable:**

Institution	Partner	Type
IRRI - International Rice Research Institute	Sander, Bjoern Ole <b.sander@irri.org>	Responsible
IPSARD - Institute of Policy and Strategy for Agriculture and Rural Development	Tran, Nghia Dai<tran.nghiadai99@gmail.com>	Other

## D397 - National CC action plans analyzed

### Main Information

**Type:** Reports and other publications

**Subtype:** Discussion paper/Working paper/White paper

**Status:** Complete

**Year of expected completion:** 2016

**New expected year:** 2017

**Cross-cutting dimension:**

- N/A

### Deliverable dissemination

**Is this deliverable already disseminated:** No

**Open access:** Yes

**License adopted:** No

### Deliverable Metadata

**Disseminated title:** National Action Plans for Mitigation in Rice: Comparative Assessment of Institutional Setting and Possible Entry Point for Interventions in the Philippines and Vietnam

**Description / Abstract:** Agriculture, particularly rice cultivation, accounts for a significant contribution to the total greenhouse gas mitigation (GHG) emissions of both the Philippines and Vietnam. In consonance with the Paris Agreement to which both countries are committed to develop their respective climate change (CC) mitigation strategies, an understanding of the dynamics of implementing CC mitigation policy in agriculture, focusing on rice and irrigation subsectors is deemed necessary. To examine the institutions-rice/agriculture-CC interface, a comparative analysis of institutional setting, structure, processes, programs and bottlenecks or constraints to the implementation of CC mitigation policy in the Philippines and Vietnam was undertaken. In the context of these elements, the study aimed to determine how CC policies developed at the national level are translated to change at the local level. It also aimed to determine similar and contrasting elements of the Intended Nationally Determined Contribution (INDC) submitted to the UNFCCC by both countries, their national CC action plans and other initiatives related to GHG in the agriculture sector. The situations in these countries are different, given their contrasting political system, but the institutional setting and processes were shown and compared to determine how it is done in each country, and specific recommendations put forward to address the bottlenecks identified by the study. Since neither mitigation nor adaptation can be understood in isolation from the whole picture or phenomenon of CC, neither CC mitigation nor adaptation policy implementation too, can be discussed outside the purview of general process of CC policy implementation. Although the study is expected to focus on the implementation of CC mitigation policy in agriculture rice and irrigation, the discussion and presentation of results particularly on the processes of CC policy implementation are generalized. However, the project team endeavoured to present cases that are specific or unique to CC policy mitigation in agriculture particularly on rice and altered irrigation.

**Publication / Creation date:** 2017-01-01

**Language:** English

**Country:** Vietnam, Philippines

**Keywords:** <Not Defined>

**Citation:** Rebugio, L.L., Ilao, S.S.L, 2017, National Action Plans for Mitigation in Rice: Comparative Assessment of Institutional Setting and Possible Entry Point for Interventions in the Philippines and Vietnam

**Handle:** <Not Defined>

**DOI:** <Not Defined>

**Creator / Authors:** <Not Defined>

## Deliverable Quality check

**FAIR Compliant:** F A I R

## Deliverable Data sharing

**Deliverable files:**

[<Not Defined>](#)

**Partners contributing to this deliverable:**

Institution	Partner	Type
IRRI - International Rice Research Institute	Sander, Bjoern Ole <b.sander@irri.org>	Responsible

### 5.3 Project Highlights

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No project highlights added

## 6. Activities

### A121 - Participatory Mitigation Selection in the CSVs

**Description:** Participatory selection through field experiments in the context of CSVs is conceived to provide farmers an array of viable mitigation options to choose from (such as AWD, mid-season drainage, improved straw management, improved fertilizer management, slow release fertilizer, short duration varieties and combinations of them). Nonetheless, farmer-initiated and site-specific modifications will be encouraged. These field experiments will enable data collection on additional incentives of water-saving technologies (where practiced) which is urgently needed to proceed from mere anecdotal evidence to science-based facts. These will include crop performance data on reduced lodging, less fungal disease, and better soil condition for mechanization.

**Start date:** Jan 2015

**End date:** Dec 2018

**Activity leader:** IRRI - International Rice Research Institute Sander, Bjoern Ole <b.sander@irri.org>

**Status:** On-going

**Overall activity or progress made during this cycle:** Results on agronomic benefits of AWD have been collected in close collaboration with project partners and SNV and will be published by mid 2016. Other field experiments are still ongoing.

**Deliverables in this activity:**

<Not defined>

### A210 - Contribution to national climate change action plans

**Description:** The analysis of national CC action plans and the development of a 'rice component for integration into NAMA are the two principal tasks in this activity. Contacts and networks as well as working groups of FP4-IRRI and CCAC will be utilized.

**Start date:** Jan 2015

**End date:** Dec 2018

**Activity leader:** IRRI - International Rice Research Institute Sander, Bjoern Ole <b.sander@irri.org>

**Status:** On-going

**Overall activity or progress made during this cycle:** Together with SNV in Vietnam, a proposal for developing a rice NAMA has been submitted to the NAMA facility. Possible funds from this project would make up for the budget cuts in this project so that the activity could still be conducted. The proposal is still under evaluation.

**Deliverables in this activity:**

<Not defined>

## A254 - Regional outscaling

**Description:** This activity encompasses several linkage mechanisms, engagement approaches and communication strategies to reach out to various public and private sector stakeholders, research institutes, and the smallholder farmers. Stakeholder mapping to identify decision makers that are key to implementing mitigation options will be done. This includes the use of modeling approaches to forecast the different stakeholders' decisions. Gender and social differentiation analyses take an essential role herein. Training material will support FP 1.3-IRRI. Surveys will be conducted in collaboration with FP1 CSV projects led by IRRI and CIAT). Stakeholder mapping will complement/ be complemented by IRRI-FP4.

**Start date:** Jan 2015

**End date:** Dec 2018

**Activity leader:** IRRI - International Rice Research Institute Sander, Bjoern Ole <b.sander@irri.org>

**Status:** On-going

**Overall activity or progress made during this cycle:** IRRI actively participated in workshops and meetings of the Climate Resilience Network (CRN) of ASEAN with the result that AWD has been included in the "Guidelines for scaling-up climate-smart agriculture" of the ASEAN CRN under "Technical guidelines for good practices".

**Deliverables in this activity:**

<Not defined>



## 7. Leverages

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No leverages added

**Title:** Climate-informed, ICT-based agro-advisory service for major food crops in South and Southeast Asia

## 1. Description

Start date	End date	Management liaison	Mgmt. liaison contact
Jan 2015	Dec 2018	RP SAs	Aggarwal, Pramod <P.K.Aggarwal@cgiar.org>

Funding source types	Status	Lead Organization	Project leader
W1/W2, Bilateral	Complete	IRRI - International Rice Research Institute - Philippines	Buresh, Roland <r.buresh@irri.org>

### Project is working on

Flaship(s)
F4 (before F2 - James): Climate services and safety nets

Region(s)
SAs: South Asia
SEA: Southeast Asia

### Project summary

A climate-informed, agro-advisory service for field-level crop and postharvest management of rice and maize will be developed and deployed to farmers through expansion of the existing ICT-based Crop Manager and its partnerships. This project mobilizes use of meteorological information through a decision-making framework with an actionable site-specific crop management advisory. Relevant historic meteorological data and seasonal climate forecasting together with a within-season monitoring on the crop, weather, and water supply will be interfaced with Crop Manager. The developed cloud-based, mobile phone app will increase farmers' adaptive capacity by enabling them to adjust crop management, cropping systems, and postharvest operations for increased income and food security. A 'tool construction kit' on how to develop and roll out an ICT-based, climate-informed advisory service will facilitate the development of the service for additional locations and additional cereal systems.

## 2. Partners

### Partner #1 (Leader)

**Institution:** IRRI - International Rice Research Institute

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Project Leader	Buresh, Roland <r.buresh@irri.org>	Activity 2014-178 *Partner*. Activity 2014-152 *Leader*. Activity 2014-175 *Leader*. Activity 2014-176 *Leader*. Activity 2014-177 *Leader*. Activity 2014-179 *Leader*. Activity 2014-180 *Leader*.	HQ

### Partner #2

**Institution:** CIMMYT - Centro Internacional de Mejoramiento de Maíz y Trigo

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	Stirling, Clare <c.stirling@cgiar.org>	Responsible for determining the effectiveness of the advisory service in India and Bangladesh; contributing to identifying climate-informed management options for rice, maize, and wheat; contributing to development of 'tool construction kit' for advisory services; contributing to deployment of advisory service in India and Bangladesh; and contributing to technical content, activities, and partnerships related to maize and wheat. Activity 2014-178 *Leader*.	HQ

## Partner #3

**Institution:** SFRI - Soils and Fertilizers Research Institute

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	Minh Tien, Tran <tranminhtien74@yahoo.com>	Activity 2014-152 *Partner*. Activity 2014-175 *Partner*.	HQ

## Partner #4

**Institution:** MARD - Ministry of Agriculture and Rural Development

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	Van Du, Pham <phamvandu_ctt@yahoo.com>	Activity 2014-175 *Partner*. Activity 2014-176 *Partner*.	HQ

## Partner #5

**Institution:** CLRRI - Cuu Long Delta Rice Research Institute

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	Thach, Tran Ngoc <thach69@gmail.com>	Provide technical content for the crop management and climate-informed recommendations in the agro-advisory service; contribute to partnerships for interfacing historical climate data and weather forecasts into the agro-advisory service; assist in the development and translation of recommendations in the agro-advisory service; and assist in partnerships for transmission of automatically generated messages via SMS.	HQ

## Lessons regarding your partnerships and possible implications for the coming planning cycle:

Year	Lesson(s)
2016	The project was implemented only in Vietnam in 2015 and 2016. Activities in the Red River Delta in northern Vietnam were implemented through SFRI in partnership with provincial organizations. Activities in the Mekong Delta in northern Vietnam were implemented through SFRI in partnership with provincial organizations.

## Partnerships overall over the last reporting period:

The project was implemented only in Vietnam in 2015 and 2016. The national partners were only SFRI, MARD, and CLRRRI.

## 3. Locations

This project is not global

Project level	Latitude	Longitude	Name
Country			Vietnam
Province	9.195828686412979	105.70396630859375	Bac Lieu, Vietnam
Province	10.29267120813683	105.5913564453125	Dong Thap, Vietnam
Province	9.89206227424785	105.63118188476562	Hau Giang, Vietnam
Province	20.597866424717456	105.82893579101562	Ha Nam, Vietnam
Province	20.92869338680932	106.33705346679687	Hai Duong, Vietnam
Province	20.42504102640919	106.13929956054687	Nam Dinh, Vietnam
Province	21.313643154117365	105.70739953613281	Vinh Phoc, Vietnam

## 4. Outcomes

### 4.1 Project Outcomes

#### Project Outcome statement:

At least 50,000 farming households across target locations in Vietnam, Bangladesh, and India increase income and livelihoods through increased agricultural productivity arising from use of climate-informed farming practices deployed through the developed agro-advisory service.

**Annual progress towards outcome (end of 2016\*):** A climate-informed, agro-advisory service for rice is endorsed by MARD in Vietnam for use by the extension service with farmers in the Mekong River Delta and in northern Vietnam. Provincial extension services are oriented to the agro-advisory service, and support is sought from provincial extension services and MARD for wide-scale dissemination of the agro-advisory service. More than 2,000 farmers received information and recommendations. The content and format of the farming advice provided through the agro-advisory service across project locations in Vietnam are adjusted to accommodate preferences of men and women farmers and members of farming households.

#### Annual progress towards project outcome in the current reporting cycle (2016\*): A

climate-informed, agro-advisory service for rice was refined based on experiences in 2015 and evaluated in the Mekong Delta and northern Vietnam. Local organizations and extension services were oriented to the agro-advisory service in seven provinces. With the completion of the project in 2016 rather than 2018 it was not feasible to obtain an endorsement by MARD in Vietnam for use by the extension service with farmers beyond 2016.

#### How communication and engagement activities have contributed to achieving your Project outcomes:\*

The partner organizations in Vietnam (SFRI, CLMRI, and MARD) were instrumental in establishing contact with provincial partners and then in conducting orientations with local partners.

#### Evidence documents of progress towards outcomes:\*

<https://marlo.cgiar.org/data/ccafs/projects//47/projectOutcome/CCAFS%20P47%20progress%20to%20outcomes%20in%20Vietnam%20in%202016.pdf>

**Annual progress towards outcome (end of 2015):** Farmers in a pilot test in the Mekong Delta of Vietnam receive advice through their mobile phone on rice farming practices adjusted for weather forecasts. The extension workers providing the service to farmers can access a web site with real-time information on the gender and characteristics of the farmers reached with the service. This information can be used by the extension service to help ensure a targeted number of women farmer's and women in households are reached.

**Annual progress towards outcome (end of 2017):** Climate-informed, agro-advisory services in Vietnam are enhanced with new information from research and adjusted to further accommodate preferences of women for the content and format of farming advice. The extension services of ten provinces in the Mekong River Delta and northern Vietnam use the agro-advisory service with farmers. In addition, one company providing agricultural inputs, one agricultural university, and one civil society organization use the agro-advisory service with farmers. 20,000 recommendations are provided to farmers in 10,000 households. The climate-informed, agro-advisory services for rice-based systems in Bangladesh and in Odisha and Bihar in India are developed and formatted to accommodate preferences of women. Climate-informed, agro-advisory services for rice-based systems in Bangladesh and in Odisha are endorsed by NARES for use by extension services with farmers.

**Annual progress towards outcome (end of 2018):** Partnerships are expanded with mobile phone-based communication networks to use the agro-advisory service in deploying farming advice. The climate-informed, agro-advisory services are upgraded and further adjusted in content and format to accommodate preferences of women. The climate-informed, agro-advisory services for rice and maize in Vietnam are used by extension services of 15 provinces of Vietnam. In addition, three companies providing agricultural inputs, one agricultural university, and two civil society organizations use the agro-advisory service with farmers in Vietnam. 60,000 recommendations are provided to farmers in 30,000 households. The Department of Agriculture Extension in Bangladesh and State Department of Agriculture in Odisha use the agro-advisory service in deploying farming advice. In addition, two agricultural universities in India and one civil society organization in Bangladesh use the agro-advisory service with farmers. 40,000 recommendations are provided to farmers in 20,000 households at target locations in South Asia.

**lessons regarding your Theory of Change and implications for the coming planning cycle; e.g. how have your assumptions changed, or do you have stronger evidence for them:\*** The project ends in 2016 rather than 2018. There will not be an activity for scaling in 2017 and 2018 as originally planned.



## 4.2 CCAFS Outcomes

**RP SAs Outcome 2019:** Boundary partners are developing better business models for public-private partnerships for climate informed agriculture risk management at different scales

**Indicator #1:** Number of regional, national, and/or sub-national initiatives incorporating research outputs to develop or improve major demand-driven, equitable, climate informed services that support rural communities

2019
<p><b>Target value:</b> 1</p> <p><b>Cumulative target to date:</b> 2</p> <p><b>Target narrative:</b> If activities start in South Asia in 2017, then either one national initiative in Bangladesh or one state initiative in Odisha will be started from 2018 on deployment of the climate-informed agro-advisory service.</p> <p><b>The expected annual gender and social inclusion contribution to this CCAFS outcome:</b> The content and format of the farming advice provided through the agro-advisory service will be adjusted to accommodate preferences of women farmers and to accommodate the farming roles and responsibilities of women within farm households.</p>
2015
<p><b>Target value:</b> 0</p> <p><b>Cumulative target to date:</b> 0</p> <p><b>Target narrative:</b> &lt;Not Defined&gt;</p> <p><b>The expected annual gender and social inclusion contribution to this CCAFS outcome:</b> &lt;Not Defined&gt;</p>

## 2016

**Target value:** 0

**Cumulative target to date:** 0

**Target achieved:** 0.0

**Target narrative:** No activities are planned in South Asia in 2016

**Narrative for your achieved targets, including evidence:** No activities were planned and conducted in South Asia in 2015 and 2016

**Narrative for your achieved annual gender and social inclusion contribution to this CCAFS outcome:** No activities were planned and conducted in South Asia in 2015 and 2016

**The expected annual gender and social inclusion contribution to this CCAFS outcome:** No activities are planned in South Asia in 2016

### Major Output groups:

- F4 (before F2 - James): New climate information and analysis that enhances the capacity of data providers (e.g. regional and national meteorological institutions) to meet the demands of climate service beneficiaries

**RP SEA Outcome 2019:** National public sector institutions and the private sector (ICTS, media) understand climate information needs of stakeholders in the food system; collaborate on the design of climate services and products to meet those needs; and interpret and communicate the climate information effectively. Farmers access and use climate and early warning information and advisories.

**Indicator #1:** Number of regional, national, and/or sub-national initiatives incorporating research outputs to develop or improve major demand-driven, equitable, climate informed services that support rural communities

## 2019

**Target value:** 1

**Cumulative target to date:** 2

**Target narrative:** 1 national initiative in Vietnam on deployment of the climate-informed agro-advisory service across the Mekong Delta and northern Vietnam, starting in 2017

**The expected annual gender and social inclusion contribution to this CCAFS outcome:** The content and format of the farming advice provided through the agro-advisory service will be adjusted to accommodate preferences of women farmers and to accommodate the farming roles and responsibilities of women within farm households.

## 2015

**Target value:** 0

**Cumulative target to date:** 0

**Target narrative:** <Not Defined>

**The expected annual gender and social inclusion contribution to this CCAFS outcome:** <Not Defined>

## 2016

**Target value:** 0

**Cumulative target to date:** 0

**Target achieved:** 0.0

**Target narrative:** Planning will be initiated on the establishment of one national initiative in Vietnam on the deployment of a climate-informed agro-advisory service across the Mekong Delta and northern Vietnam in 2017.

**Narrative for your achieved targets, including evidence:** The targets were initially projected as requiring more than two years (2015-2106) to achieve

**Narrative for your achieved annual gender and social inclusion contribution to this CCAFS outcome:** The project endeavored to include women in the orientation and evaluation of the agro-advisory service in seven provinces of Vietnam.

**The expected annual gender and social inclusion contribution to this CCAFS outcome:** The content and format of the farming advice provided through the agro-advisory service will be adjusted to accommodate preferences of women farmers and of women within farm households. Use of the agro-advisory service by gender and access of women members of households to messages sent through the agro-advisory service to mobile phones will be monitored and used to improve the service.

### Major Output groups:

- F4 (before F2 - James): New climate information and analysis that enhances the capacity of data providers (e.g. regional and national meteorological institutions) to meet the demands of climate service beneficiaries

## 4.3 Other Contributions

### Contribution to other CCAFS Impact Pathways:

The learning from Vietnam with a climate-informed ICT-based agro-advisory service can be used to accelerate the processes of development, evaluation, and deployment for comparable tools in other countries of SE Asia and also in South Asia

#### Region: RP EA

**Indicator:** F4 (before F2 - James)- Increase in research-informed demand-driven investments in climate services for agriculture and food security decision-making (millions)

**Contribution to the selected outcomes target in 2016:** The project developed and evaluated with national partners in Vietnam a climate-informed agro-advisory service, which provides field- and farmer-specific information for the management of rice. The lessons and experiences from this project represent essential initial steps before future scaling of the use of ICT-based tools. The lessons and experiences from this project can also be relevant to other crops and to other countries and regions.

**Target value contribution:** <Not Defined>

### Collaborating with other CRPs

#### Rice

**Description of collaboration:** Project activities in Vietnam are complemented by a bilateral project of the Rice CRP. That project, through the support of a fertilizer company, is conducting research to refine and verify the nutrient management recommendation in the advisory service.

## 4.4 Case Studies

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No case studies added

## 5. Project outputs

### 5.1 Overview by MOGs

#### Major Output groups - 2019

**F4 (before F2 - James):** New climate information and analysis that enhances the capacity of data providers (e.g. regional and national meteorological institutions) to meet the demands of climate service beneficiaries

**Brief bullet points of your expected annual 2019 contribution towards the selected MOG:**

Weather information and climate-adjusted farming advice provided to farmers across the Mekong Delta and Red Rice Delta of Vietnam.

**Brief 2019 plan of the gender and social inclusion dimension of the expected annual output:**

The climate information and farming advice provided through the agro-advisory service will be adjusted to accommodate preferences of women farmers and of women within farm households.

#### Major Output groups - 2016

**F4 (before F2 - James):** New climate information and analysis that enhances the capacity of data providers (e.g. regional and national meteorological institutions) to meet the demands of climate service beneficiaries

**Brief bullet points of your expected annual 2016 contribution towards the selected MOG:** An operational agro-advisory service providing farmers with weather information and farming advice in the Mekong Delta and Red River Delta of Vietnam.

**Brief summary of your actual 2016 contribution towards the selected MOG:** An operational agro-advisory service capable of providing crop management advice and sending weather information by text message was developed for rice farmers in the Mekong Delta and Red River Delta of Vietnam.

**Brief 2016 plan of the gender and social inclusion dimension of the expected annual output:**

The content and format of the farming advice provided through the agro-advisory service will be adjusted to accommodate preferences of women farmers and of women within farm households.

**Summary of the gender and social inclusion dimension of the 2016 outputs:** The agro-advisory service was developed to enable the disaggregation of users and farming advice by gender

## Major Output groups - 2015

**F4 (before F2 - James):** New climate information and analysis that enhances the capacity of data providers (e.g. regional and national meteorological institutions) to meet the demands of climate service beneficiaries

**Brief bullet points of your expected annual 2015 contribution towards the selected MOG:** The beta version of the agro-advisory service for the Mekong Delta and Red River Delta of Vietnam.

**Brief summary of your actual 2015 contribution towards the selected MOG:** A pre-release version of the climate-informed, ICT-based, agro-advisory service for the Mekong Delta and Red River Delta of Vietnam was developed and pilot tested.

**Brief 2015 plan of the gender and social inclusion dimension of the expected annual output:** At least 20% of the farmer's participating in the evaluation of the agro-advisory service will be women.

**Summary of the gender and social inclusion dimension of the 2015 outputs:** In order to develop the agro-advisory service for better matching of farming advice to the gender and characteristics of farmers, at least 20% of the farmers participating in the pilot testing of the agro-advisory service in 2015 were women.

## Major Output groups - 2014

**F4 (before F2 - James):** New climate information and analysis that enhances the capacity of data providers (e.g. regional and national meteorological institutions) to meet the demands of climate service beneficiaries

**Brief bullet points of your expected annual 2014 contribution towards the selected MOG:** <Not Defined>

**Brief summary of your actual 2014 contribution towards the selected MOG:** <Not Defined>

**Brief 2014 plan of the gender and social inclusion dimension of the expected annual output:** <Not Defined>

**Summary of the gender and social inclusion dimension of the 2014 outputs:** <Not Defined>

## 5.2 Deliverables

### D513 - Initial version of a rice climate-informed agro-advisory service for Vietnam

#### Main Information

**Type:** Data, models and tools

**Subtype:** Data portal/Tool/Model code/Computer software

**Status:** Complete

**Year of expected completion:** 2016

**New expected year:** <Not Defined>

**Cross-cutting dimension:**

- N/A

#### Deliverable dissemination

**Is this deliverable already disseminated:** No

**Open access:** No

**Open access restriction:** Not Disseminated

**License adopted:** No

#### Deliverable Metadata

**Disseminated title:** <Not Defined>

**Description / Abstract:** <Not Defined>

**Publication / Creation date:** <Not Defined>

**Language:** <Not Defined>

**Country:** <Not Defined>

**Keywords:** <Not Defined>

**Citation:** <Not Defined>

**Handle:** <Not Defined>

**DOI:** <Not Defined>

**Creator / Authors:** <Not Defined>

#### Deliverable Data sharing

**Deliverable files:**

<Not Defined>

**Partners contributing to this deliverable:**

Institution	Partner	Type
IRRI - International Rice Research Institute	Buresh, Roland <r.buresh@irri.org>	Responsible
SFRI - Soils and Fertilizers Research Institute	Minh Tien, Tran<tranminhtien74@yahoo.com>	Other



# IRRI-F4 (before F2 - James)-SAs-SEA-P47 - Research Project

Submitted on 2017-02-20 at 15:01 (Reporting cycle 2016)



RESEARCH PROGRAM ON  
Climate Change,  
Agriculture and  
Food Security



CLRRI - Cuu Long Delta Rice Research Institute	Thach, Tran Ngoc<thach69@gmail.com>	Other
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## 5.3 Project Highlights

### Project highlight 184

**Title:** Climate-informed, advisory tool for rice evaluated in Vietnam

**Author:** Roland Buresh

**Subject:**

**Publisher:**

**Year reported:** 2016

**Project highlights types:**

- Capacity enhancement

**Is global:** No

**Start date:** Jan 2016

**End date:** Dec 2016

**Keywords:**

**Countries:** Vietnam

**Highlight description:** A climate-informed, decision-making and advisory tool was updated, made available through the internet in Vietnamese and English, evaluated with rice farmers in the Mekong Delta and Red River Delta, and further refined based on experiences with farmers and extension services. The tool named 'Rice Crop Manager Vietnam' (RCM) is designed for use by extension workers, crop advisers, and farmer leaders who access it through the web browser of a personal computer or smartphone and then use it to interview farmers and collect information about the farmers' rice-growing conditions. The RCM uses collected information to automatically calculate a crop management guideline, which matches the location-specific cropping practices and needs of farmers and can within moments be provided to farmers as an actionable printed recommendation. The RCM has the capability to set targeted yields for farmers based on historical climate and yield records and to provide weather information and crop management advice via text messages to the phone of a farmer.

**Introduction / Objectives:** The objectives were to use observations and feedback with partners to update a climate-informed information and communications technology (ICT)-based advisory service, pilot test the updated advisory service named Rice Crop Manager through extension services, and orient provincial extension services in preparation for eventual wider scale dissemination.

**Results:** The project made progress toward outcomes by demonstrating the ability of farming advice from RCM to benefit farmers and by creating awareness with national partners of the opportunity for such an information and communications technology (ICT)-based service to enhance extension and accelerate the flow of relevant information and advice to farmers. Pilot testing was conducted with farmers in Bac Lieu, Dong Thap, and Hau Giang Provinces in the Mekong Delta and with farmers in Ha Nam, Hai Duong, Nam Dinh, and Vinh Phuc Provinces in the Red River Delta. Many farmers in the pilot testing only partially followed the RCM recommendations. The RCM recommendation was fully adopted in 62 farmers' fields in the Mekong Delta and 62 farmers' fields in the Red River Delta. In these cases, farmers in five out of six seasons increased net income by switching from their current crop management practices to the recommended practices of RCM. The increase in income was largely associated with adjustments and reductions in the use of fertilizer to better match rice-growing conditions. Grain yields of farmers were already relatively high and not significantly increased with RCM recommendations. The achievement of sustained operations with sustainable benefits for large numbers of farmers requires the adoption and use of the RCM agro-advisory service within existing dissemination and extension pathways.

**Partners:** Pilot testing with farmers in the Mekong Delta was implemented through a partnership of

Cuu Long Rice Research Institute (CLRRI) with provincial agricultural organizations in Bac Lieu, Dong Thap, and Hau Giang Provinces. Pilot testing with farmers in the Red River Delta was implemented through a partnership of the Soils and Fertilizers Research Institute (SFRI) with Ha Nam, Hai Duong, Nam Dinh, and Vinh Phuc Provinces.

**Links / Sources for further information:** <Not Defined>

## 6. Activities

### A152 - Develop and release the first version of a climate-informed agro-advisory service in Vietnam

**Description:** A climate-informed agro-advisory service will be developed to provide farmers with personalized climate-informed farming advice. It will be accessible through the web browser of computers and smartphones. This Rice Crop Manager will be enhanced to include climate-informed rice farming advice. Historical climate data and weather forecasts (obtained through partnerships with other projects and meteorological services) will be combined with location-specific good crop management practices obtained through an examination of current recommendations and the conduct of additional research. Recommendations will be transmitted to farmers through printed guidelines and via mobile phones. Automatic SMS to mobile phones of farmers will initially be provided through a company providing SMS gateway services. This project will ensure uninterrupted operation of the advisory service. The agro-advisory service will focus on rice in the Mekong Delta and northern Vietnam in 2015-2016.

**Start date:** Jan 2015

**End date:** Dec 2016

**Activity leader:** IRRI - International Rice Research Institute Buresh, Roland <r.buresh@irri.org>

**Status:** Complete

**Overall activity or progress made during this cycle:** A climate-informed agro-advisory service to provide farmers with personalized climate-informed farming advice was developed. It was made accessible through the web browser of computers and smartphones at <http://webapps.irri.org/vn/rcm>. The project ended in 2016. Continued maintenance and use of the agro-advisory service beyond 2016 will require an alternative source of support.

**Deliverables in this activity:**

- D513: Initial version of a rice climate-informed agro-advisory service for Vietnam

## A175 - Evaluate, verify, and upgrade the climate-informed agro-advisory service in Vietnam

**Description:** Research and surveys will be conducted at pilot locations to identify and evaluate climate-informed decision-making and management practices that can benefit male and female farmers exposed to uncertain and changing weather. Collected information will be used to develop and improve the recommendations provided by the climate-informed agro-advisory service. Content for the advisory service will be verified and updated by national partners. Partners will include MARD and organizations within VAAS. This activity will also examine the effectiveness of weather forecasts interfaced with the advisory service. Lessons learnt will be documented and distributed. The results from this activity will help provide evidence for the benefits of the agro-advisory service, thereby facilitating the development of partnerships for the deployment of the climate-informed advisory service in Vietnam.

**Start date:** Jan 2015

**End date:** Dec 2018

**Activity leader:** IRRI - International Rice Research Institute Buresh, Roland <r.buresh@irri.org>

**Status:** On-going

**Overall activity or progress made during this cycle:** Research to evaluate the climate-informed agro-advisory service was conducted with partners in four provinces in northern Vietnam and three provinces in southern Vietnam. The activities stopped in the second half of 2016 in preparation for the early completion of the project in 2016.

**Deliverables in this activity:**

<Not defined>

## 7. Leverages

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No leverages added

**Title:** Climate-smart Villages in the Mekong Basin: Defining an Innovative and Comprehensive Approach for Catalyzing Roll-out of Adoption

## 1. Description

Start date	End date	Management liaison	Mgmt. liaison contact
Jan 2015	Dec 2018	RP SEA	Tan Yen, Bui <y.bui@irri.org>

Funding source types	Status	Lead Organization	Project leader
W1/W2, Bilateral	On-going	IRRI - International Rice Research Institute - Philippines	Wassmann, Reiner <r.wassmann@irri.org>

### Project is working on

Flaship(s)
F2 (before F1 - Andy): Climate-Smart Technologies and Practices

Region(s)
SEA: Southeast Asia

### Project summary

The overall objective is to elevate the CSV concept from a mere benchmarking to a standardized approach for increasing adaptive capacities of actors from village to province. As the underlying principle, the project will introduce innovations as integral part of local farming systems – and not as stand-alone component technologies. The innovative features are: (i) a comprehensive knowledge platform facilitating customized information access to different stakeholders, (ii) gender-disaggregated incentives for improved practices and preparedness, (iii) 'good practice' guidelines and monitoring approach for certification of CSA practices that do not compromise other environmental standards, (iv) distinct interfaces for linking CCAFS Flagship activities as well as commodity CRPs – e.g. by using mobile phone apps, and (v) road maps for CSA roll-out within regional context.

## 2. Partners

### Partner #1 (Leader)

**Institution:** IRRI - International Rice Research Institute

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Project Leader	Wassmann, Reiner <r.wassmann@irri.org>	Activity 2014-281 *Partner*. Activity 2014-282 *Partner*. Activity 2014-283 *Leader*. IRRI will be responsible for overall coordination as well as the CSV implementation and local partner activities in South Laos and South Vietnam. These tasks will capitalize on technical knowhow on rice and mobile phone technologies as specific competences bought in by IRRI staff. Moreover, IRRI will lead the activity #3 (mainstreaming) that encompasses innovative approaches for CSA certification with specific relevance for rice. IRRI will also engage in cross-regional activities related to outscaling and upscaling of CSA through CSV approach	HQ

### Partner #2

**Institution:** WorldFish - WorldFish

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	Kura, Yumiko <Y.Kura@cgiar.org>	Activity 2014-281 *Leader*. Activity 2014-282 *Partner*. Activity 2014-283 *Partner*. WorldFish-Cambodia will lead the activities concerning the development of an approach for enabling Participatory Action Research and analyzing gender and social differentiation as well as engage in activities related to outscaling and upscaling of CSA through CSV approach.	Phnom Penh, Cambodia



## Partner #3

**Institution:** IWMI - International Water Management Institute

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	Lacombe, Guillaume <G.Lacombe@cgiar.org>	Activity 2014-281 *Partner*. Activity 2014-282 *Leader*. Activity 2014-283 *Partner*. IWMI-Laos will lead the activities concerning the generation of GIS-based maps on bio-physical and socio-economic suitability of different CSA practices and establishment of an interactive web-based available in different countries as well as engage in activities related to outscaling and upscaling of CSA practices through CSV approach.	Vientiane, Lao PDR

## Partner #4

**Institution:** Cantho University-Vietnam

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	Thanh Truc, Ngo Thi <nttttruc@ctu.edu.vn>	Activity 2014-281 *Partner*. Activity 2014-282 *Partner*.	HQ

## Partner #5

**Institution:** DAFO - District Agriculture and Forestry Extension Offices - Phonhong District

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	Keophoxay, Anousith <A.Keophoxay@cgiar.org>	Activity 2014-281 *Partner*. Activity 2014-282 *Partner*.	HQ

## Partner #6

**Institution:** PAFO - Provincial Agriculture and Forestry Office - Savannakhet Province

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	Khammone, Thiravong <th_khammone@yahoo.com>	Activity 2014-281 *Partner*. Activity 2014-282 *Partner*.	HQ

## Partner #7

**Institution:** AS - Aphivat Strey

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	Vuthy, Chin <chinvuthy@yahoo.com>	Activity 2014-281 *Partner*. Activity 2014-282 *Partner*.	HQ

## Partner #8

**Institution:** MDC - Mekong Development Center

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	Bouapao, Lilao <lilaolee@gmail.com>	Activity 2014-281 *Partner*. Activity 2014-282 *Partner*.	HQ

## Partner #9

**Institution:** CUSO - CUSO International

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	Kittikhoun, Ou-Ee <ouee.kittikhoun@cuso-int.org>	Activity 2014-281 *Partner*. Activity 2014-282 *Partner*.	HQ

## Partner #10

**Institution:** VAAS - Vietnamese Academy of Agricultural Sciences

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	VAN TRINH, MAI <maivantrinh@gmail.com>	Activity 2014-282 *Partner*.	HQ

## Partner #11

**Institution:** NAFRI - National Agriculture and Forestry Research Institute

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	Thalongsengchanh, Palikone <palikone.t@gmail.com>	Activity 2014-282 *Partner*.	HQ

## Partner #12

**Institution:** DAE - Department of Agricultural Extension

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	Khean, Sovannara <farmingsystem@online.com.kh>	Activity 2014-282 *Partner*.	Phnom Penh, Cambodia

## Partner #13

**Institution:** UAF - Nong Lam University

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	Phu Hoa, Nguyen <phuhoa0203@gmail.com>	Activity 2014-283 *Partner*.	HQ

## Partner #14

**Institution:** CLRRRI - Cuu Long Delta Rice Research Institute

**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	Thach, Tran Ngoc <thach69@gmail.com>	Conduct an inventory of rice varieties in Bach Lieu Prov. and identify options for introducing climate-smart varieties	HQ

**Partner #15****Institution:** SKU - Savannakhet University**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	Phommasack, Outhen <outhen@hotmail.com >	SKU collaborates through students conducting the BS thesis work in the CSV Phailom. This encompasses a wide range of mostly agronomic studies supporting and monitoring implementation of CSA practices.	HQ

**Lessons regarding your partnerships and possible implications for the coming planning cycle:**

Year	Lesson(s)
2016	The difficult financial situation of the projects requires a pro-active stance to forge new partnerships with local institutions. This has worked well with NGOs and Universities that are genuinely interested in collaboration.

**Partnerships overall over the last reporting period:**

The overall collaboration of partners has greatly improved in 2016. At all 4 CSVs, the 3 CGIAR partners have embarked in joint activities and national partners have provided strategic contributions to the scaling of Technologies and Practices. Collaboration with NGOs (Cuso International in Lao PDR and AS in Cambodia) were very instrumental. A newly forged partnership with Savannakhet University provides better logistics and human capacity in the CSV in S. Laos.

## 3. Locations

This project is not global

Project level	Latitude	Longitude	Name
Climate Smart Village Sites	9.369	105.672	Tra Hat
Climate Smart Village Sites	16.541	105.127	Pailom
Climate Smart Village Sites	18.358	102.463	Ekxang
Climate Smart Village Sites	13.185	103.247	Rohal Suong

## 4. Outcomes

### 4.1 Project Outcomes

#### **Project Outcome statement:**

The engagement of partners and the development of appropriate tools are two considerations for a systematic dissemination of CSA practices. All activities from Outscaling to Upscaling to Outreach are aimed at engaging the local public and private sector stakeholders (including the value chain actors) in identifying together with the end-users (i.e. smallholder farmers) combinations of locally-suitable CSA practices. A wide array of tools and customized decision support instruments (e.g. mobile phone apps), knowledge products (e.g. GIS-based maps) and learning platforms (e.g. village-based information center) will be developed and established to build awareness of the technologies and facilitate knowledge sharing among prospective users. All these will help address stakeholder-specific information needs for creating knowledge-action linkages in different environments along the Mekong Basin that are influenced by upstream development, inter-annual changes in river discharge and sea effects (in the delta).

**Annual progress towards outcome (end of 2016\*):** ? Inclusive and functional multi-stakeholder platforms for service provisions at local level facilitate interaction and organization of value chains actors (Outscaling) ? Identified stakeholders championing the CSV concept implementation contribute to the development of the different phases for the establishment of a network of CSVs (Outscaling) ? GIS-maps on bio-physical and socio-economic suitability of different CSA practices support planning processes (Upscaling) ? A comprehensive and action- oriented roadmap for CSA roll-out (Upscaling)

**Annual progress towards project outcome in the current reporting cycle (2016\*):** In 2016, the project has moved from village-centered activities to increasingly working at province scale. This move is in line with the overall task of this FP1.3 project which is on scaling. At this point, the stakeholders already closely interact at village scale led by individual farmer 'champions' who have also participated in cross-CSV visits. The project also benefited from activities initiated by the SEA Regional Office conducted in S. Vietnam, CABI activities on Integrated Pest Management as well as other IRRI, WorldFish and IWMI projects. The project has started later than other FP1 projects and has faced specific challenges in implementing activities in 3 distinct countries. Thus, the anticipated roll-out of CSA road maps had to be shifted to 2017. Regarding multi-stakeholder platforms, our local CSV teams have been able to facilitate provision of technical assistance from a variety of national and sub-national agencies. In Cambodia, MAFF has initiated a project to pilot test Climate Smart Village at 7 sites, generally following the concepts and processes promoted through CCAFS FP1 projects. In terms of GIS mapping, the project has progressed as follows: \* Two water resource maps were produced for CSVs Ban Phailom and Ban Ekxang and their neighborhood encompassing water resources and other biophysical parameters (land-use, topo, rainfall pattern). \* The Province of Bac Lieu (CSV Tra Hat) forms part of the geographical domain for a suitability mapping of CSA Practices in rice production. In the first step, we have developed a methodology for suitability mapping of Alternate Wetting and Drying (Nelson et al 2015) and are now applying his methodology to different countries. In the next step, we can add new layers to this GIS data base to assess suitability of other CSA practices such as alternative crop management.

**How communication and engagement activities have contributed to achieving your Project**

**outcomes:**\* The blog Resource sharing for dry season crops: a tale of the village pond (<https://ccafs.cgiar.org/news/resource-sharing-dry-season-crops-tale-village-pond>) has been shared with a list of potential donors, development and UN agencies to illustrate the obvious linkages between water management and improved nutrition in Laos where efforts to reduce malnutrition are prioritized by the government. The exemplified interventions are now being considered for upscaling in the development agenda. This potential financial support could help upscaling our proposed water management interventions across provinces.

**Evidence documents of progress towards outcomes:**\*

[https://marlo.cgiar.org/data/ccafs/projects//54/projectOutcome/Report\\_multi-stakeholder\\_final.docx](https://marlo.cgiar.org/data/ccafs/projects//54/projectOutcome/Report_multi-stakeholder_final.docx)

**Annual progress towards outcome (end of 2015):** ? Stakeholder analysis identifies incentives and capacity of public and private stakeholders in all CSV sites and documented learning workshops define extent of stakeholders engagement at different levels around CSV concept and best-fit CSA options, specific for the different country contexts (Upscaling) ? Action-research support CSVs concept implementation and farmer training in gender-sensitive CSA/ no-regret options in countries based on farmers' demands, and gender studies for relevant food value chains (Outscaling) ? Field staff supporting CSVs integrate use of existing mobile-based decision support tools for CS crop management to improve quality of advisory services (Outreach)

**Annual progress towards outcome (end of 2017):** ? Context-specific protocols and checklists on CSA options feasibility, including translated training manuals for CSA testing and scaling are part of country-specific guidelines on CSA dissemination ? New mobile phone apps for assessing mitigation potentials of different land use options within the regional scale of the Mekong Basin are ready ? Well-organized and village-based information centers act as one-stop shop for farmer to access CSA options ? An interactive web-based portal available in different countries ensure quick access

**Annual progress towards outcome (end of 2018):** ? Brochures and other campaign materials to promote CSA practices aimed at establishing knowledge networks in each country and a source book ? A user Manual for Participatory Action research for (i) establishing CSVs includes organizing principles and methodologies, (ii) setting up stakeholder platforms on learning and service provision ? Guidelines to monitor low-carbon practices without exceeding other environmental standards for prospective use by value chain actors ? Evidence-based policy recommendations for mainstreaming CSA practices including checklist on gender aspects

**lessons regarding your Theory of Change and implications for the coming planning cycle; e.g. how have your assumptions changed, or do you have stronger evidence for them:**\* At this point, we do not have specific lessons on the ToC. The challenges that the project implementation has encountered derive from inherent difficulties in working in 3 distinct countries, e.g. language barriers. We do not see those challenges resulting from the underlying ToC.



## 4.2 CCAFS Outcomes

**RP SEA Outcome 2019:** Local public and private sector stakeholders (service providers, farmer leaders, etc.) are engaged in identifying and meeting farmer priorities, incl. women and marginalized groups, and using CSA knowledge, technologies, and tools to increase their awareness and capacity to advise on evidence- and knowledge-based climate smart technologies.

**Indicator #1:** # of national and subnational development initiatives and public institutions that prioritize and inform project implementation of equitable best bet CSA options using CCAFS science and decision support tools

2019
<p><b>Target value:</b> 0</p> <p><b>Cumulative target to date:</b> 4</p> <p><b>Target narrative:</b> Higher impact on VN is expected because of ongoing activities and existing stakeholder networks.</p> <p><b>The expected annual gender and social inclusion contribution to this CCAFS outcome:</b> 15%</p>
2015
<p><b>Target value:</b> 0</p> <p><b>Cumulative target to date:</b> 0</p> <p><b>Target narrative:</b> Project will have yet to build up the evidence-based feasibility and benefits of CSA practices.</p> <p><b>The expected annual gender and social inclusion contribution to this CCAFS outcome:</b> &lt;Not Defined&gt;</p>

## 2016

**Target value:** 4

**Cumulative target to date:** 4

**Target achieved:** 4.0

**Target narrative:** Higher impact on VN is expected because of ongoing activities and existing stakeholder networks.

**Narrative for your achieved targets, including evidence:** Laos: Positive results through (i) rehabilitation of ponds and (ii) roof water capture have been taken up by two NAFRI agencies (ARS and Climate Adaptation Center) and regional agriculture agency (PAFO) in Savannakhet province Cambodia: Climate-smart village approach and planning tools developed by the project were shared with Ministry of Agriculture, Fishery and Forestry (MAFF) in Cambodia and informed the design of their project on climate-smart agriculture. (Evidence is Powerpoint on MAFF project) Vietnam: Climate advisory on salinity intrusion has been adopted for local agencies in the Mekong Delta, namely the Cuu Long Rice Research Institute.

**Narrative for your achieved annual gender and social inclusion contribution to this CCAFS**

**outcome:** Farmer-led testing of climate stress tolerant rice varieties and improved community-based seed system: These activities gave emphasis on inclusion of women farmers who consistently participated in a share of about 50% of all participants. Pest Smart Agriculture: The female Plant Health Advisors (PHA) have led Plant Clinic sessions; appr. 50% of trained farmers were women. Improvement of community water storage. The plans were developed by 50% male and female members of village committees. Additional; We also initiated a comparative study on gender/ youth

**The expected annual gender and social inclusion contribution to this CCAFS outcome:** Capacity building for CSA technologies and practices in the 4 CSVs will target women and poorer households in the village and facilitate their engagement in the scaling of CSA technologies.

**Indicator #2:** # of public-private actors at national and sub-national levels are using new incentive mechanisms or business models/ markets that explicitly promote climate smart approaches along the value chain, using CCAFS science

## 2019

**Target value:** 0

**Cumulative target to date:** 13

**Target narrative:** This refers to input suppliers (e.g. seed companies) and market actors to introduce new labelling schemes for low-carbon footprints.

**The expected annual gender and social inclusion contribution to this CCAFS outcome:** <Not Defined>

2015

**Target value:** 0

**Cumulative target to date:** 0

**Target narrative:** Project will have yet to build up the evidence-based feasibility and benefits of CSA practices.

**The expected annual gender and social inclusion contribution to this CCAFS outcome:** <Not Defined>

## 2016

**Target value:** 4

**Cumulative target to date:** 13

**Target achieved:** 1.0

**Target narrative:** This refers to input suppliers (e.g. seed companies) and market actors to introduce new labeling schemes for low-carbon footprints.

**Narrative for your achieved targets, including evidence:** This target seems to be more challenging than expected given the low state of information on carbon footprints in the 3 countries we are working in. The only exception are rice exporting companies in Vietnam that support with the sustainability standard of the SRP (Sustainable Rice Platform). The SRP is a multi-stakeholder partnership co-hosted by IRRI and UNEP to promote resource efficiency and sustainability -- including indicators for low GHG emissions.

**Narrative for your achieved annual gender and social inclusion contribution to this CCAFS**

**outcome:** Both women and men farmer from various social groups and farmer self-help group are invited to participate CSA/CSV meeting, trainings and workshops that hosted by CCAFS SEA and FP 1.3. By recognizing that perceptions and attitude toward CSA practices vary across gender and social groups, participatory approaches to information-sharing and communication will be modified and adjusted for better acceptance afterward. Those efforts include highlighting the special significance of low emission development.

**The expected annual gender and social inclusion contribution to this CCAFS outcome:** Capacity building for CSA technologies and practices in the 4 CSVs will target women and poorer households in the village and facilitate their engagement in the scaling of CSA technologies.

## Major Output groups:

- F2 (before F1 - Andy): Biophysical, socio-economical and tradeoffs analyses (incl. enabling environments and gender), innovative methods, engagement approaches and customized decision support tools for CSA prioritization, wide scale adoption, local adaptation and investment planning (LAM, WA, EA, SA, SEA)
- F2 (before F1 - Andy): Approaches, strategies and scaling up/out mechanisms (e.g CSV), for enhanced adaptive capacity and resilience from the field to the sub-national level (LAM, WA, SA, EA, SEA)
- F2 (before F1 - Andy): Innovative knowledge management systems (ICT, information network, multi-stakeholder platforms, learning alliances, fora etc) and strategic engagements approaches and partnerships that promote access, co-creation, capacity building, learning, 2 ways sharing and dissemination of CSA information and tools to farmers, extension services, agro-dealer networks, local governments, private sector, academia etc. (LAM, WA, EA, SA, SEA)
- F2 (before F1 - Andy): Evidence on equitable CSA certification schemes, new agri-business models, financial incentive mechanisms and policy instruments to promote and mainstream CSA adoption at different levels of the value chain (LAM, WA, SA, SEA)

**RP SEA Outcome 2019:** The public sector at various level are coordinating efforts towards supporting project implementation, providing incentives mechanisms/schemes, encouraging private sector participation and developing local adaptation plan to promote widespread adoption and investment on CSA interventions

**Indicator #1:** # of public-private actors at national and sub-national levels are using new incentive mechanisms or business models/ markets that explicitly promote climate smart approaches along the value chain, using CCAFS science

2019
<b>Target value:</b> 0
<b>Cumulative target to date:</b> 13
<b>Target narrative:</b> <Not Defined>
<b>The expected annual gender and social inclusion contribution to this CCAFS outcome:</b> <Not Defined>

2015
<b>Target value:</b> 0
<b>Cumulative target to date:</b> 0
<b>Target narrative:</b> <Not Defined>
<b>The expected annual gender and social inclusion contribution to this CCAFS outcome:</b> <Not Defined>

## 2016

**Target value:** 9

**Cumulative target to date:** 13

**Target achieved:** 3.0

**Target narrative:** National: 9 (2 in VN and 5 in CAM and 2 LAO) Subnational: plus 4 new (12 in total)

**Narrative for your achieved targets, including evidence:** In all 3 target countries, the governments itself are still trying to learn the concept of incentive schemes or market mechanisms around CSA. The most advanced action into this direction is represented by our INDC/ NDC consultations with the Vietnamese government (see report of FP3/ SE Asia).

**Narrative for your achieved annual gender and social inclusion contribution to this CCAFS**

**outcome:** Gender- and socially differentiated knowledge and perceptions toward climate change and various CSA practices in all CSVs is collected and assessed. This encompasses gender-differentiated perceptions for more effective CSA targeting -- including low emission development.

**The expected annual gender and social inclusion contribution to this CCAFS outcome:** Capacity building for CSA technologies and practices in the 4 CSVs will target women and poorer households in the village and facilitate their engagement in the scaling of CSA technologies.

### Major Output groups:

- F2 (before F1 - Andy): Biophysical, socio-economical and tradeoffs analyses (incl. enabling environments and gender), innovative methods, engagement approaches and customized decision support tools for CSA prioritization, wide scale adoption, local adaptation and investment planning (LAM, WA, EA, SA, SEA)
- F2 (before F1 - Andy): Evidence on equitable CSA certification schemes, new agri-business models, financial incentive mechanisms and policy instruments to promote and mainstream CSA adoption at different levels of the value chain (LAM, WA, SA, SEA)

## 4.3 Other Contributions

### Contribution to other CCAFS Impact Pathways:

<Not Defined>

### Collaborating with other CRPs

#### Rice

**Description of collaboration:** Effectively all project activities dealing with rice production benefit from the research portfolio of the Rice CRP. Climate-smart technologies are derived from CRP generated outputs, eg tolerant rice cultivars originate from breeding programs, water management options in natural resource program etc

#### Integrated Systems for the Humid Tropics

**Description of collaboration:** On-going CRP 1.2 activities (HumidTropics) in Northwest Vietnam, that aim to intensify farming system productivity by accessing new water resources are directly benefiting the design of decision tools experimented in CCAFS' CSVs to improve profitability of home-garden irrigation.

#### Aquatic Agricultural Systems

**Description of collaboration:** CSV Rohal Suong in Cambodia is one of the AAS target community. The participatory process of selecting "no-regrets" CSA technologies and practices was built on the community visioning and participatory planning process started by AAS in 2013. CCAFS activities at village level are being integrated into this process.

## 4.4 Case Studies

### Case Study #135

**Title:** Community-based Seed Management (CBSM) in Phailom

**Year:** 2016

**Project(s):** P54

**Outcome Statement:** Low quality of rice seeds has been identified as a key production constraint in the Phailom CSV due mainly to lack of awareness and skills of the rice farmers. IRRI and the project partners build upon this challenge to initiate the Community Seed Bank project as a platform to distribute climate-resilient varieties. A recent activity toward this end was conducting a village Seed Fair where a diverse collection of rice seeds were showcased and rated according to farmers' preferences.

**Research Outputs:** The demonstration trials and dissemination of new climate-smart varieties, which was implemented by the Agriculture Research Center (ARC) produced favorable results with the significant increase in farmers' yield. This elicited willingness on the part of the farmers to trade traditional rice varieties to improved ones. Through the conduct of workshops and farmer meetings, the importance of a community-based seed management system was highlighted given the lack of source for good quality rice seeds in the village. Outputs (journal articles, blogs, reports): • Report: Community Based Seed Management (CBSM) under changing climate • Interim Technical Report: Ban Phailom CCAFS Activity • Training Report: Community-Based Seed Management under changing climate - ToT

**Research Partners:** National Agriculture and Forestry Research Institute (NAFRI) Provincial Agriculture and Forestry Office (PAFO) District Agriculture and Forestry Office (DAFO) Savanakheth University Agriculture Research Center

**Activities:** • Demonstration trials and dissemination of new climate-resilient rice varieties. This work is seen as highly replicable to other villages and outscaling potential is high. • Farmers Field School for climate resilience promotion on agricultural production sector, 15-16 June 2016 • Training of Trainers on Community-based seed management under changing climate – 15-16 November – Participated by government extension workers and 2 farmers (6 females and 8 males), discussions focused on successful rice seed production, seed security and seed quality. In this activity, it was decided to form a coordinating team, comprising ministry extension staff, researchers, and farmers, to plan for the Seed Fair. • Establishment of community seedbank. Initiated by CUSO International, together with PAFO and DAFO, trial fields for seed production have been selected. A farmers' committee has been created to oversee the plans and activities.

**Non-Research Partneres:** CUSO International – social mobilization and capacity building

**Output Users:** Rice farmers in Phailom CSV, government extension workers and relevant line agencies, seed research institutions

**Evidence Outcome:** Moving forward, the farmers' preferred varieties would be planted in demonstration plots in the 2017 planting season. Field trials will be coupled with capacity building activities among farmers as a follow through activity of the Seed Bank project. This is helpful because research stations supply only 20% of farmers.



**Output Used:** The village Seed Fair served as an eye-opener to participating stakeholders with regards to improved rice varieties that they can test for improved productivity. The activity was also a platform for information sharing and engagement across important stakeholders that could potentially contribute to achieving a successful community-based seed management system.

**References Case:** • Report: Community Based Seed Management (CBSM) under changing climate • Interim Technical Report: Ban Phailom CCAFS Activity • Training Report: Community-Based Seed Management under changing climate - ToT

**Primary 2019 outcome indicator(s):**

- # of national and subnational development initiatives and public institutions that prioritize and inform project implementation of equitable best bet CSA options using CCAFS science and decision support tools

**Link between outcome story and the FP Outcome(s):** <Not Defined>

**Annex uploaded:**

## 5. Project outputs

### 5.1 Overview by MOGs

#### Major Output groups - 2019

**F2 (before F1 - Andy):** Evidence on equitable CSA certification schemes, new agri-business models, financial incentive mechanisms and policy instruments to promote and mainstream CSA adoption at different levels of the value chain (LAM, WA, SA, SEA)

**Brief bullet points of your expected annual 2019 contribution towards the selected MOG:** <Not Defined>

**Brief 2019 plan of the gender and social inclusion dimension of the expected annual output:** <Not Defined>

**F2 (before F1 - Andy):** Innovative knowledge management systems (ICT, information network, multi-stakeholder platforms, learning alliances, fora etc) and strategic engagements approaches and partnerships that promote access, co-creation, capacity building, learning, 2 ways sharing and dissemination of CSA information and tools to farmers, extension services, agro-dealer networks, local governments, private sector, academia etc. (LAM, WA, EA, SA, SEA)

**Brief bullet points of your expected annual 2019 contribution towards the selected MOG:** <Not Defined>

**Brief 2019 plan of the gender and social inclusion dimension of the expected annual output:** <Not Defined>

**F2 (before F1 - Andy):** Biophysical, socio-economical and tradeoffs analyses (incl. enabling environments and gender), innovative methods, engagement approaches and customized decision support tools for CSA prioritization, wide scale adoption, local adaptation and investment planning (LAM, WA, EA, SA, SEA)

**Brief bullet points of your expected annual 2019 contribution towards the selected MOG:** <Not Defined>

**Brief 2019 plan of the gender and social inclusion dimension of the expected annual output:** <Not Defined>

**F2 (before F1 - Andy):** Approaches, strategies and scaling up/out mechanisms (e.g CSV), for enhanced adaptive capacity and resilience from the field to the sub-national level (LAM, WA, SA, EA, SEA)

**Brief bullet points of your expected annual 2019 contribution towards the selected MOG:** <Not Defined>

**Brief 2019 plan of the gender and social inclusion dimension of the expected annual output:** <Not Defined>

## Major Output groups - 2016

**F2 (before F1 - Andy):** Evidence on equitable CSA certification schemes, new agri-business models, financial incentive mechanisms and policy instruments to promote and mainstream CSA adoption at different levels of the value chain (LAM, WA, SA, SEA)

**Brief bullet points of your expected annual 2016 contribution towards the selected MOG:** The initial project phase will be based on well-established CSA practices derived from previous projects as entry points. Thus, the Project can directly move towards CSA certification schemes and new agri-business models to promote and mainstream CSA adoption.

**Brief summary of your actual 2016 contribution towards the selected MOG:** CSA technologies that are promoted in the CSVs are mostly well-established practices in rice farming, pest management, fisheries conservation, and water management. In terms of certification, the project works closely with the Sustainable Rice Platform has initiated an calculation of GHG emissions in the SRP Field Calculator.

**Brief 2016 plan of the gender and social inclusion dimension of the expected annual output:** It is important to include in the CSV portfolio CSA activities that are community-based in nature, and can contribute to increasing resilience of women and poorer households in the village who may not be able to directly participate in the CSA pilot activities due to lack of time/ resources.

**Summary of the gender and social inclusion dimension of the 2016 outputs:** Our activities have increased awareness of the importance of integrating gender into every relevant dimension of any agricultural policy or program on the part of our national partners. In the meantime, they recognize the need for gender mainstreamed into agricultural policy or program

**F2 (before F1 - Andy):** Innovative knowledge management systems (ICT, information network, multi-stakeholder platforms, learning alliances, fora etc) and strategic engagements approaches and partnerships that promote access, co-creation, capacity building, learning, 2 ways sharing and dissemination of CSA information and tools to farmers, extension services, agro-dealer networks, local governments, private sector, academia etc. (LAM, WA, EA, SA, SEA)

**Brief bullet points of your expected annual 2016 contribution towards the selected MOG:** The project works closely with with an ICT expert (funded thorough a bilateral grant) who develops a descision support tool for rice rproduction based on mobile phone technology. This tool on applying CSA technologies will be shared with farmers, extension services, seed suppliers, local governments etc.

**Brief summary of your actual 2016 contribution towards the selected MOG:** In the Province of Bac Lieu (CSV Tra Hat), salinity intrusion has a marked seasonal pattern and occurs during the low-rainfall season. Our response is linking farmers to a mobile-enabled salinity warning and advisory service which is done in collaboration with a bilateral project (SALTS) as well as local agencies.

**Brief 2016 plan of the gender and social inclusion dimension of the expected annual output:** The knowledge management of this project will fully incorporate gender and social differentiation as a main feature of compiling and structuring information.

**Summary of the gender and social inclusion dimension of the 2016 outputs:** At this point, there is very limited scope for addressing gender-issues and social inclusion in our ICT work. This can be attributed to the nature of decision making on field management which is a largely male-dominated. However, we will try to address gender-specific perceptions on these issues in the future.

**F2 (before F1 - Andy):** Biophysical, socio-economical and tradeoffs analyses (incl. enabling environments and gender), innovative methods, engagement approaches and customized decision support tools for CSA prioritization, wide scale adoption, local adaptation and investment planning (LAM, WA, EA, SA, SEA)

**Brief bullet points of your expected annual 2016 contribution towards the selected MOG:** The CSVs will function as catalysts for scaling of CSA technologies and thus, create an enabling environment within the respective province. the project approach includes support tools for CSA prioritization as a means for wide scale adoption,

**Brief summary of your actual 2016 contribution towards the selected MOG:** The project approach and tools, and the progress of pilot testing were communicated to these key stakeholders from village to national level. In 2016, our focus was on province scale -- in line with the specific objectives on outscaling and upscaling (e.g. rice seed improvement and dissemination of tolerant varieties)

**Brief 2016 plan of the gender and social inclusion dimension of the expected annual output:** Capacity building for CSA technologies and practices in the 4 CSVs will target women and poorer households in the village and facilitate their engagement in the scale out.

**Summary of the gender and social inclusion dimension of the 2016 outputs:** At the facilitation of the project team, CSV communities prioritized CSA technologies that would generate broad benefits to the entire community, including poorer families. For example, the local community preferred community water storage pond rather than water saving practices that will only be feasible to few well-off farmers.

**F2 (before F1 - Andy):** Approaches, strategies and scaling up/out mechanisms (e.g CSV), for enhanced adaptive capacity and resilience from the field to the sub-national level (LAM, WA, SA, EA, SEA)

**Brief bullet points of your expected annual 2016 contribution towards the selected MOG:** The Mekong Basin is a critical region for CCAFS because of \* high vulnerability to Climate Change \* high poverty levels \* Strategic importance for cooperation with other CRPs (e.g. GRISP)

**Brief summary of your actual 2016 contribution towards the selected MOG:** Approaches and strategies encompassed: \* Water resource mapping (GIS maps) and participatory approaches for its use \* Farmer field schools and training material in local languages (posters, manual brochures/primers, source books) \* Real-time risk warning (using mobile phones) \* Organizing seed fairs \* Providing custom-made decision support tools

**Brief 2016 plan of the gender and social inclusion dimension of the expected annual output:** Gender aspects will be considered throughout all activities and will be addressed in specific deliverables

**Summary of the gender and social inclusion dimension of the 2016 outputs:** As stated for the previous MOG, the project team facilitated CSA technologies that would generate broad benefits to the entire community, including poorer families, as opposed to benefiting a few well-off farmers. We have also initiated a PhD study on gender/ youth issues for CSA technologies conducted in several CSVs.

## Major Output groups - 2015

**F2 (before F1 - Andy):** Evidence on equitable CSA certification schemes, new agri-business models, financial incentive mechanisms and policy instruments to promote and mainstream CSA adoption at different levels of the value chain (LAM, WA, SA, SEA)

**Brief bullet points of your expected annual 2015 contribution towards the selected MOG:** <Not Defined>

**Brief summary of your actual 2015 contribution towards the selected MOG:** Rice farmers in 2 CSVs (Tra Hat and Pailom) have been familiarized with sustainable production techniques that form part of the "SRP Standard for Sustainable Rice Cultivation" (SRP is co-hosted by IRRI and UNEP). "Greenhouse Gas Emissions" comprises 1 of 12 Performance Indicators (Performance Indicators ([https://www.dropbox.com/s/rdmxpgd582avm6/SRP%20Indicators\\_FINAL.pdf?dl=0](https://www.dropbox.com/s/rdmxpgd582avm6/SRP%20Indicators_FINAL.pdf?dl=0)))

**Brief 2015 plan of the gender and social inclusion dimension of the expected annual output:** <Not Defined>

**Summary of the gender and social inclusion dimension of the 2015 outputs:** Gender aspects have consistently been addressed as a cross-cutting issue among all project activities. All surveys have acquired gender-dis-aggregated data; all training courses devoted special attention to women's roles and perceptions. "Women empowerment" comprises 1 of 12 Performance Indicators.

**F2 (before F1 - Andy):** Innovative knowledge management systems (ICT, information network, multi-stakeholder platforms, learning alliances, fora etc) and strategic engagements approaches and partnerships that promote access, co-creation, capacity building, learning, 2 ways sharing and dissemination of CSA information and tools to farmers, extension services, agro-dealer networks, local governments, private sector, academia etc. (LAM, WA, EA, SA, SEA)

**Brief bullet points of your expected annual 2015 contribution towards the selected MOG:** <Not Defined>

**Brief summary of your actual 2015 contribution towards the selected MOG:** The project has created multi-stakeholder meetings at all 4 CSV. The work on ITC focused on the CSV Tra Hat encompassing mobile phone apps for crop management recommendation and -- at inception stage of a new bilateral project -- on real-time salinity warning.

**Brief 2015 plan of the gender and social inclusion dimension of the expected annual output:** <Not Defined>

**Summary of the gender and social inclusion dimension of the 2015 outputs:** Gender aspects have consistently been addressed as a cross-cutting issue in both, the multi-stakeholder meetings and the ICT apps.

**F2 (before F1 - Andy):** Biophysical, socio-economical and tradeoffs analyses (incl. enabling environments and gender), innovative methods, engagement approaches and customized decision support tools for CSA prioritization, wide scale adoption, local adaptation and investment planning (LAM, WA, EA, SA, SEA)

**Brief bullet points of your expected annual 2015 contribution towards the selected MOG:** <Not Defined>

**Brief summary of your actual 2015 contribution towards the selected MOG:** The trade-off analysis focused on water management in rice production. Water saving approaches, such as Alternate Wetting and Drying offer multi-factorial and multi-stakeholder benefits. In 2015, this work has focused on the CSV Tra Hat.

**Brief 2015 plan of the gender and social inclusion dimension of the expected annual output:** <Not Defined>

**Summary of the gender and social inclusion dimension of the 2015 outputs:** Gender-specific perceptions and roles have been considered in the work on Alternate Wetting and Drying.

**F2 (before F1 - Andy):** Approaches, strategies and scaling up/out mechanisms (e.g CSV), for enhanced adaptive capacity and resilience from the field to the sub-national level (LAM, WA, SA, EA, SEA)

**Brief bullet points of your expected annual 2015 contribution towards the selected MOG:** <Not Defined>

**Brief summary of your actual 2015 contribution towards the selected MOG:** The project collaborated with other projects that work at national scale (FP4: PIRCCA; CCAC paddy project). Collectively, these projects worked In 2015 on (i) stakeholder mapping and (ii) 'information profiling', ie. compiling stake-holder specific information..

**Brief 2015 plan of the gender and social inclusion dimension of the expected annual output:** <Not Defined>

**Summary of the gender and social inclusion dimension of the 2015 outputs:** Gender aspects have consistently been addressed as a cross-cutting issue in both, stakeholder mapping and information profiling.

## Major Output groups - 2014

**F2 (before F1 - Andy):** Evidence on equitable CSA certification schemes, new agri-business models, financial incentive mechanisms and policy instruments to promote and mainstream CSA adoption at different levels of the value chain (LAM, WA, SA, SEA)

**Brief bullet points of your expected annual 2014 contribution towards the selected MOG:** <Not Defined>

**Brief summary of your actual 2014 contribution towards the selected MOG:** <Not Defined>

**Brief 2014 plan of the gender and social inclusion dimension of the expected annual output:** <Not Defined>

**Summary of the gender and social inclusion dimension of the 2014 outputs:** <Not Defined>

**F2 (before F1 - Andy):** Approaches, strategies and scaling up/out mechanisms (e.g CSV), for enhanced adaptive capacity and resilience from the field to the sub-national level (LAM, WA, SA, EA, SEA)

**Brief bullet points of your expected annual 2014 contribution towards the selected MOG:** <Not Defined>

**Brief summary of your actual 2014 contribution towards the selected MOG:** <Not Defined>

**Brief 2014 plan of the gender and social inclusion dimension of the expected annual output:** <Not Defined>

**Summary of the gender and social inclusion dimension of the 2014 outputs:** <Not Defined>

**F2 (before F1 - Andy):** Innovative knowledge management systems (ICT, information network, multi-stakeholder platforms, learning alliances, fora etc) and strategic engagements approaches and partnerships that promote access, co-creation, capacity building, learning, 2 ways sharing and dissemination of CSA information and tools to farmers, extension services, agro-dealer networks, local governments, private sector, academia etc. (LAM, WA, EA, SA, SEA)

**Brief bullet points of your expected annual 2014 contribution towards the selected MOG:** <Not Defined>

**Brief summary of your actual 2014 contribution towards the selected MOG:** <Not Defined>

**Brief 2014 plan of the gender and social inclusion dimension of the expected annual output:** <Not Defined>

**Summary of the gender and social inclusion dimension of the 2014 outputs:** <Not Defined>

**F2 (before F1 - Andy):** Biophysical, socio-economical and tradeoffs analyses (incl. enabling environments and gender), innovative methods, engagement approaches and customized decision support tools for CSA prioritization, wide scale adoption, local adaptation and investment planning (LAM, WA, EA, SA, SEA)

**Brief bullet points of your expected annual 2014 contribution towards the selected MOG:** <Not Defined>

**Brief summary of your actual 2014 contribution towards the selected MOG:** <Not Defined>

**Brief 2014 plan of the gender and social inclusion dimension of the expected annual output:** <Not Defined>

**Summary of the gender and social inclusion dimension of the 2014 outputs:** <Not Defined>



## 5.2 Deliverables

### D551 - Trainings and workshops for farmers

#### Main Information

**Type:**

**Subtype:**

**Status:** Complete

**Year of expected completion:** 2015

**New expected year:** 2016

**Cross-cutting dimension:**

- Gender

**Gender level(s):**

- Collection of sex-disaggregated data
- Analysis of sex-disaggregated data

#### Deliverable dissemination

**Is this deliverable already disseminated:** No

**Open access:** No

**Open access restriction:** <Not Defined>

**License adopted:** No

#### Deliverable Metadata

**Disseminated title:** <Not Defined>

**Description / Abstract:** <Not Defined>

**Publication / Creation date:** <Not Defined>

**Language:** <Not Defined>

**Country:** <Not Defined>

**Keywords:** <Not Defined>

**Citation:** <Not Defined>

**Handle:** <Not Defined>

**DOI:** <Not Defined>

**Creator / Authors:** <Not Defined>

#### Deliverable Data sharing

**Deliverable files:**

<Not Defined>

**Partners contributing to this deliverable:**

Institution	Partner	Type
IWMI - International Water Management	Lacombe, Guillaume	

Institute	<G.Lacombe@cgiar.org>	Responsible
WorldFish - WorldFish	Kura, Yumiko<Y.Kura@cgiar.org>	Other
DAE - Department of Agricultural Extension	Khean, Sovannara<farmingsystem@online.com.kh>	Other
AS - Aphivat Strey	Vuthy, Chin<chinvuthy@yahoo.com>	Other

## D1160 - Multi-stakeholder platforms established including representatives from different groups and actors of the value chain

### Main Information

**Type:** Reports and other publications

**Subtype:** Research workshop report

**Status:** Complete

**Year of expected completion:** 2016

**New expected year:** <Not Defined>

**Cross-cutting dimension:**

- Gender
- Youth

**Gender level(s):**

- Development of innovations/ interventions/ policies with explicit gender targeting

### Deliverable dissemination

**Is this deliverable already disseminated:** Yes

**Dissemination Channel:** Other

**Dissemination URL:**

<http://climatechange.irri.org/Climate-smart%20Agriculture/%20Climate-smart%20Villages>

**Open access:** Yes

**License adopted:** No

### Deliverable Metadata

**Disseminated title:** Report of Multi-stakeholder Platforms of FP1.3 in 2016

**Description / Abstract:** This report describes project activities were developed to accommodate both individual farmers and farmer groups. In the case of farmer groups, women's groups (clubs) will be among the targeted groups. In the case of individual farmers, information is collected on gender of each farmer answering the questions and receiving a recommendation.

**Publication / Creation date:** 2017-01-01

**Language:** English

**Country:** Philippines

**Keywords:** Multi-stakeholder Platforms, farmer groups, women's groups

**Citation:** Report of Multi-stakeholder Platforms of FP1.3 in 2016; IRRI 2017, <http://climatechange.irri.org/>

**Handle:** <Not Defined>

**DOI:** <Not Defined>

**Creator / Authors:** <Not Defined>

### Deliverable Quality check

**FAIR Compliant:** 

## Partners contributing to this deliverable:

Institution	Partner	Type
WorldFish-Cambodia	Kura, Yumiko <Y.Kura@cgiar.org>	Responsible
IRRI - International Rice Research Institute	Wassmann, Reiner<r.wassmann@irri.org>	Other
IWMI - International Water Management Institute	Lacombe, Guillaume<G.Lacombe@cgiar.org>	Other

## D1162 - A set of genuine CSA practices alongside generic no-regret options

### Main Information

**Type:** Data, models and tools

**Subtype:** Database/Dataset/Data documentation

**Status:** Complete

**Year of expected completion:** 2016

**New expected year:** <Not Defined>

**Cross-cutting dimension:**  
<Not Defined>

### Deliverable dissemination

**Is this deliverable already disseminated:** Yes

**Dissemination Channel:** Other

**Dissemination URL:**

<http://climatechange.irri.org/csa-framework-in-rice>

**Open access:** Yes

**License adopted:** No

### Deliverable Metadata

**Disseminated title:** <http://climatechange.irri.org>; <https://sites.google.com/a/irri.org/ccac/technologies>

**Description / Abstract:** This Conceptual Framework for Climate-smart Agriculture in Rice production (Dec, 2016) describes the basic features of the entire range of CSA Technologies & Practices (T&P). Each T&P is characterized by (i) Adaptation mechanism, (ii) Mitigation mechanism and (iii) Target environments/ countries.

**Publication / Creation date:** 2016-12-01

**Language:** English

**Country:** Philippines

**Keywords:** Climate-smart Agriculture; Rice production, Adaptation, Mitigation

**Citation:** Conceptual Framework for Climate-smart Agriculture in Rice production, IRRI, Dec, 2016; <http://climatechange.irri.org/csa-framework-in-rice>

**Handle:** <Not Defined>

**DOI:** <Not Defined>

**Creator / Authors:** <Not Defined>

### Deliverable Quality check

**FAIR Compliant:** F A I R

**Process of data quality assurance:** • No

**Data dictionary:** • No

**Are the tools used for data collection available:** • No

**Partners contributing to this deliverable:**

# IRRI-F2 (before F1 - Andy)-SEA-P54 - Research Project

Submitted on 2017-02-20 at 07:48 (Reporting cycle 2016)



RESEARCH PROGRAM ON  
Climate Change,  
Agriculture and  
Food Security



Institution	Partner	Type
IWMI - International Water Management Institute	Lacombe, Guillaume <G.Lacombe@cgiar.org>	Responsible
IRRI - International Rice Research Institute	Wassmann, Reiner<r.wassmann@irri.org>	Other

## 5.3 Project Highlights

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No project highlights added

## 6. Activities

### A281 - Outscaling

**Description:** This activity includes at each of the 4 CSVs 1 Developing and implementing capacity building for farmers 2 Establishing and updating village-based information centers to showcase CSA practices and organizing farmer visits from other villages 3 Monitoring and assessing CSA uptake and performance 4 Engaging stakeholders for selection of promising combinations of CSA practices 5 Carrying out gender impact analysis of CSA practices 6 Narrowing-down generic CSA concepts to genuine climate change adaptation

**Start date:** Jan 2015

**End date:** Dec 2018

**Activity leader:** WorldFish - WorldFish Kura, Yumiko <Y.Kura@cgiar.org>

**Status:** On-going

**Overall activity or progress made during this cycle:** Rohal Suong, Cambodia - A village-level CSV program launch event - Conducted training/capacity needs assessment for basic agriculture skills - Carried out a few training events on basic skills (such as straw management, pest management) - Short-listing and feasibility analysis of potential CSA technologies was carried out - Participatory selection of CSA technologies/ practices workshop was held - Farmer-led field experiments on climate stress-tolerant rice varieties have started as part of a USAID-supported project led by IRRI Cross-regional - 2 field visits were made by the CSV Cambodia team to Phailom CSV in Lao to scope out potential synergistic interventions - Approaches for the CSA priority-setting exercise / feasibility analysis, were compared between Rohal Suong, Cambodia, and Tra Hat, Vietnam, - The needs for exchange visits among CSV teams in Lao, Cambodia, and Vietnam (Tra Hat) to share experience and lessons so far were discussed.

**Deliverables in this activity:**

- D551: Trainings and workshops for farmers



## A282 - Upscaling

**Description:** This activity includes at each of the 4 CSVs 1 Developing and implementing capacity building for extension services and provincial decision makers 2 Conducting information campaigns on CSA potentials at each CSV-country 3 Defining 'lessons learnt' and comparative assessment of different communication approaches at different levels 4 Analyzing the efficiency of multi-stakeholder learning platforms established in outscaling activities 5 Defining parameters for assessing spatial and temporal suitability of CSA practices 6 Engaging provincial stakeholders as well as public and private value chain actors for systematic dissemination of CSA practices

**Start date:** Jan 2015

**End date:** Dec 2018

**Activity leader:** IWMI - International Water Management Institute Lacombe, Guillaume  
<G.Lacombe@cgiar.org>

**Status:** On-going

**Overall activity or progress made during this cycle:** - Excel-based tool to design rainwater harvesting storage completed, - Two demonstration sites set-up in Central Laos (CSV Ban Phailom) for home-based vegetable production during dry season, - Training on on-farm water management performed, - cost-benefit analysis performed for 6 prioritized climate-smart technologies in Ban Ekxang; for 7 CSA technologies, - water access and availability mapping around CSVs in Laos initiated, - An agro-ecosystem analysis to facilitate potential scale out of CSA practices at commune level - Existing landuse/planning information around the target CSV site at commune and district levels were reviewed - Several consultation meetings with key stakeholders at provincial and district level - A provincial stakeholder workshop was held with the participation of NGOs and line agencies - A review of existing extension materials and training curriculum relevant to CSA was conducted in Cambodia - A review of previous and ongoing projects in Cambodia relevant to CSA

**Deliverables in this activity:**

- D552: Training and manuals for CSA practices in local languages

## A283 - Outreach (

**Description:** This activity compiles a variety of decision-support instruments and ICT-enabled platforms: 1 Developing an approach for doing Participatory Action Research for CSV scaling 2 Fine-tuning and testing of the mobile phone app for rice to provide site-specific recommendations to farmers 3 Incorporating information on GHG emissions into a mobile phone application (based on the beta version of the South Vietnam mobile phone app) 4 Fine-tuning the existing GAP (Good Agricultural Practice) guidelines to include CSA compliance 5 Developing and documenting strategies for mainstreaming CSA practices and tools 6 Building a web-based portal for accessing knowledge and tools on different CSA practices 7 Identifying "Opportunities for Change in Practice" (OCP) derived from possible certification and labeling of CSA- compliant production 8 Ensuring proper considerations of gender issues in dissemination programs of CSA practices

**Start date:** Jan 2015

**End date:** Dec 2018

**Activity leader:** IRRI - International Rice Research Institute Wassmann, Reiner  
<r.wassmann@irri.org>

**Status:** On-going

**Overall activity or progress made during this cycle:** - CCAFS SE Asia organized a media workshop in Phnom Penh, attended by over hundred participants representing various news and media agencies in the country. - CCAFS organized a session at the Greater Mekong Forum on Water Food and Energy, organized by WLE in Phnom Penh in October 2015. CSV work was presented at this session. - Detailed process and findings from the participatory selection of CSA technologies/ practices workshop in Rohal Suong are being documented as a technical report, as inputs to the development of a process guidance for CSA scale out - National rice breeding program were involved in seed distribution to assess the efficiency of their seed dissemination programs - Decision support systems on water harvesting and risks were presented to local stakeholders - Demonstration of post-harvest technologies triggered local initiatives on mechanization

**Deliverables in this activity:**

- D1158: Well-organized village-based information centers

## 7. Leverages

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No leverages added