

FINAL TECHNICAL PROJECT REPORT

Generating evidence on gender sensitive Climate-Smart Agriculture to inform policy in Central America

IDRC Project Number: 108809-001

Period: March 2018 – August 2020

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1. Executive summary

The overall objective of this project was to support the scaling up of gender sensitive Climate Smart Agriculture (CSA) as a mechanism to increase resilience and improve livelihoods of vulnerable households in the face of climate-related impacts. Focused on two countries, Guatemala and Honduras, it aimed to generate science-based actionable information, tools and processed that support decision making by stakeholders at different scales, from farmers to subnational, national and regional levels. Its specific objectives were:

- To generate knowledge and understanding on the impact of specific CSA options on the livelihoods and food security as well as adaptive capacity of vulnerable households in two countries in Central America, (with a focus on different types of households and their intra-household gender dynamics) in a context of climate variability.
- To provide science-based evidence of the links between gender issues and adoption factors of CSA practices/technologies; both how gender issues¹ relate to adoption of CSA and how adoption impacts on gender (in)equality.
- To increase households'/local level organizations' capacities to plan for and access, implement and monitor gender sensitive CSA interventions that increase climate and livelihood resilience.
- To feed science based evidence from local level into national and regional policy dialogue and provide specific recommendations to guide the design and operationalization of gender and socially inclusive CSA strategy recently formulated by Central America Agricultural Council.

It's designed was fully aligned to build on and support the ongoing efforts from the CGIAR program on Climate Change, Agriculture and Food Security (CCAFS) and its Learning Platform on Participatory evaluation of CSA practices and technologies. The value addition and specific focus on the project was to deepen our understanding of the gender dimension that can constrain and/or enable, increased adoption that benefits equity and leads to enhanced livelihoods, food and climate related security.

Project activities and outputs targeted four types of next users or beneficiaries: farming communities, local partners and institutions, national level organisations (namely Ministries of Agriculture) but also regional bodies such as the Central America Agricultural Council (CAC) and the Council of Ministers of Women of Central America (COMMCA).

At local level, the project provided the perfect ground to implement a novel Monitoring tool that generated unique information on gender disaggregated adoption trends and perceived impacts of CSA practices on farmers' livelihoods and gender indicators in the Climate Smart Villages of Olopa (Guatemala) and Santa Rita (Honduras). It also allowed to identify temporal and spatial changes occurring in those territories and generate new insights into specific trends associated with female farmers which appear to be increasingly been affected by higher levels of vulnerability. This work also provides context specific data on adoption typologies, enabling and constraining factors that will translate into research publications but most importantly, guide improved design of gender sensitive technical and policy related interventions in the region. Leveraging on the experience from the IDRC project, their involvement into the implementation of the Climate-Smart Village approach and the technical support from CIAT/CCAFS,

¹ such as access and control over resources, time use/labor, and participation in decision-making

the two local strategic partners submitted and got approved three gender sensitive scaling projects accounting for nearly 1 million USD.

An emphasis was also put into capacity strengthening as pre-condition for empowerment and sustainability. With farmers, it aimed to improve their CSA planning and decision-making in the context of a changing climate, using innovative tools such as an Economic Role Game co-developed with local partners. At subnational level, project outputs contributed to an undergrad course in the local university CUNORI and, at national level, they supported the development of 2 days seminar that fed into the curriculum of the Zamorano University Master program in Sustainable Tropical Agriculture (MATS). A way to sow a gender sensitive seed for future generations!

Aware of the need to support and influence the policy environment another stream of work engaged closely with Agricultural Ministries and national level institutions from Guatemala and Honduras. The main objective was to respond to their demands in the context of the need to implement the regional CSA strategy for the SICA region and more specifically the strategic line: *Facilitating mechanisms for integrating the equity principle and gender equality, as well as the intergenerational and social inclusion approach in CSA actions*. A successful collaborative process led to the development of the practical guide *Step-by-step process to mainstream gender in climate-smart agricultural initiatives* made for Guatemala and for Honduras. This initiative was widely promoted through the regional network of CAC and COMMCA and contributed to increase the dialogue between those two bodies highlighting the importance of mainstreaming a gender sensitive component in the agenda of CAC's Climate change and Integral Risk Management Technical Group. The project fueled also two important outputs a series on capacity building Webinars on Gender and CSA and the development of a roadmap to implement the strategic "gender line"³ of regional CSA Strategy.

Policymakers and decision makers at both national and regional level have acknowledged the support provided by the project team, which has increased their capacities on gender and CSA.

2. The research problem

The agricultural sector plays a key role in Central America's economy and social fabric. In 2017, the countries targeted by this project were among the most affected by extreme weather events and strong reductions in the climatic suitability of key crops were expected ahead. Increasing climate variability and change were (and still are) among the main threats affecting family farming livelihoods and superposing other socio-economic challenges which lead to high migration rates. The climate-Smart agricultural practices and technologies evaluated by the CGIAR research program on Climate Change, Agriculture and Food Security, constitute promising options to help increase male and female farmers' resilience to climate change, improve their food security and agricultural productivity and capture potential mitigation co-benefits. Effective design, implementation and scaled uptake of these options entails, however, the need to fill a critical gap by gathering context-specific evidence on their effectiveness and improving our understanding on farmers adoption typologies (based on factors such as age, gender, household composition, ethnicity among others) and specific enabling or constraining factors. Moreover, there is a need to connect scales in an effort to support large-scale CSA adoption in the intervention sites and spillover effects in the region.

It is important to highlight that this project was design in the context of Central American region's strong commitment to promote sustainable production and development through CSA declared at COP 21, and their recently formulated CSA Strategy. It aims to respond to the high demand from national

governments to access to and benefit from research-based information that can support and guide their effective implementation and scaling. The project theory of change focused on increasing capacities and empowering national, subnational and regional organizations transferring new knowledge and co-developing planning and monitoring tools for the identification of best-bet gender sensitive CSA options that can be embedded in current and future initiatives.

Our general objective was to support the scaling up of gender sensitive CSA as a mechanism to increase resilience and improve livelihoods of vulnerable households in the face of climate-related impacts. Four specific objectives (and associated activities) were established:

1. To generate knowledge and understanding on the impact of specific CSA options on the livelihoods and food security as well as adaptive capacity of vulnerable households in two countries in Central America, Nicaragua² and Guatemala (with a focus on different types of households and their intra-household gender dynamics) in a context of climate variability.
2. To provide science-based evidence of the links between gender issues and adoption factors of CSA practices/technologies; both how gender issues relate to adoption of CSA and how adoption impacts on gender (in)equality.
3. To increase households'/local level organizations' capacities to plan for and access, implement and monitor gender sensitive CSA interventions that increase climate and livelihood resilience.
4. To feed science based evidence from local level into national and regional policy dialogue and provide specific recommendations to guide the design and operationalization of gender and socially inclusive regional CSA strategy recently formulated by the Central American Agricultural Council (CAC).

Note: The intrahousehold work could not be completed due to the fieldwork challenges related to the shift in country and then to the pandemic. Work was thus reoriented to new outputs.

3. Progress towards milestones

- First Interim Technical report (Period: March 2018 – February 2019) submitted on the 28th February 2019 documenting, in detail, the successful progress of all project activities.

This report presents the progress made in the first 12 months of project implementation and the envisioned 2019 updated plans. It highlights the activities undertaken mainly in Guatemala, as the political crisis initiated in Nicaragua one month after the project started (April 2018) obliged us to interrupt the work that country. For each of the four activities, main results and deliverables are presented including the project Theory of Change that reflects the rational and contributions of the different activities to the expected changes/influence in our target beneficiaries (local, national and regional level) and as well as to the three broader project outcomes:

- Reduced production risk and increased resilience of vulnerable households to climate variability and/or related stresses through enhanced capacities of men and women farmers to access and implement CSA options.

² Due to the 2018 crisis that obliged all CIAT staff to abandon Nicaragua work (institutional policy), work shifter to Honduras

- Enhanced capacity of local organizations to plan for, implement and monitor gender-sensitive CSA interventions that help reducing gender inequalities.
- Improved adaptation and rural development policies at national and regional levels that integrate gender and social inclusion considerations.
- The second Interim Technical report (Period: March 2019- December 2019) was submitted on the 13 December 2019 following a virtual presentation made to our IDRC focal point Sandra Gagnon.

This report documents, in detail, the progress made in 2019 across all the projects activities including:

- The analysis of the data collected in the 2018 CSA monitoring exercise in both the Guatemala and the (new) Honduras site.
- Gender sensitive analysis of those data and dissemination of the preliminary results in an International Conference
- Capacity building activities undertaken with farmers, local organizations and National actors in both focused countries
- Evidence based recommendations and project outputs feeding into the regional work plan from CAC-COMMCA, to support the implementation of the CSA strategy.

Synthesis of research results and development outcomes

The figure 1 below illustrates the scale at which the four project activities act and the linkages with strategic partners and/or targeted stakeholders involved in the collaborative research to generate science-based insights for scaling gender sensitive CSA interventions.

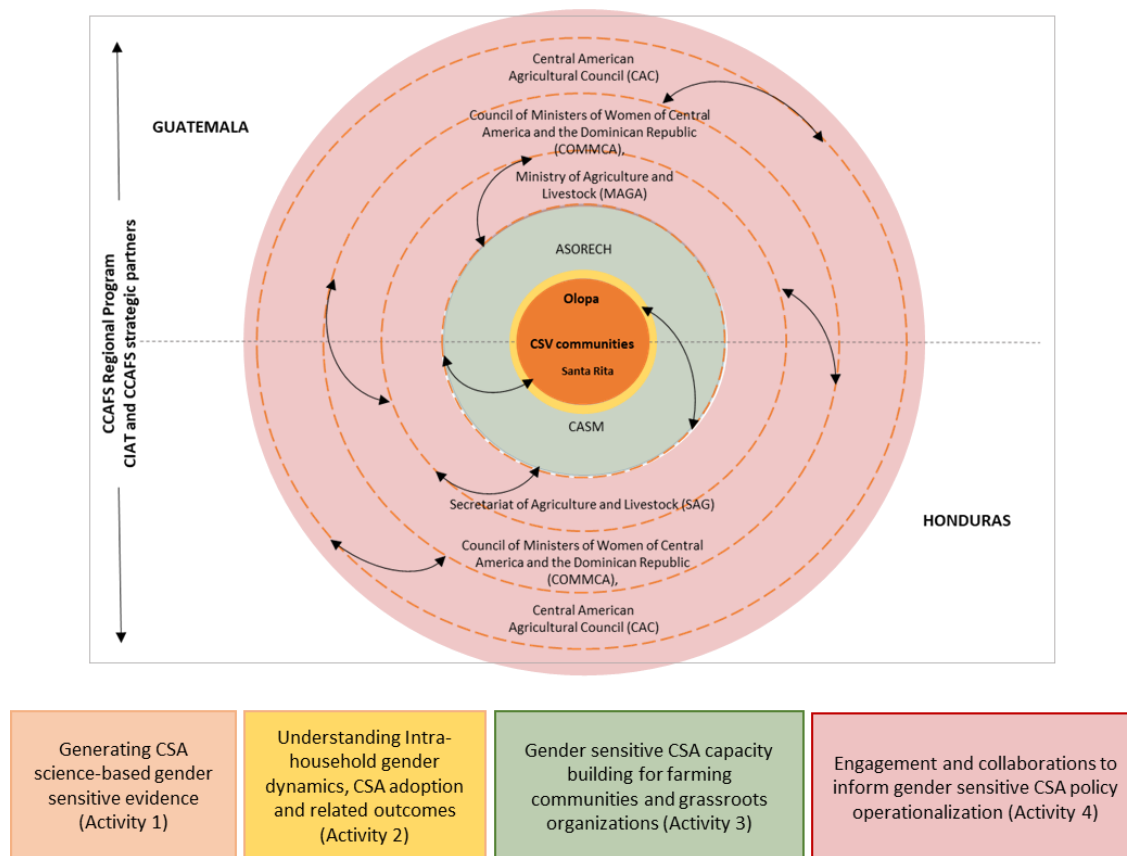


Figure 1: Project activities and key CCAFS partners engaged in the research and scaling up efforts.

4.1 Activity /Objective 1: Generating knowledge on CSA and its impacts

This activity focused on three areas:

- Designing and rolling out an individual capacity survey** at the onset and end line of the project, to map out the initial and final status of CSA and gender knowledge, skills, attitude and related practices in the three types of targeted actors (farmers, local and national level stakeholders), and assess (to the extent possible) the project contribution to the observed changes.
- Improving and implementing the ICT-based CSA Household Monitoring** Instrument in the two Climate-smart village (CSV) sites from Olopa (Guatemala) and Santa Rita (Honduras) in order to:
 - Assess CSA adoption trends (disaggregated based on gender and social differentiation) and identifying adoption typologies, enabling and constraining factors.
 - Identify the frequency of climate related shocks, coping strategies and risk mitigation actions undertaken by the farming communities, and

- Examine female and male farmers' perceptions on the impacts of CSA practices on gender aspects (labor time, control over resources, and participation in decision-making) and on, the outcomes of specific CSA options on households' livelihood/food security and resilience.
- c) **Producing dissemination/outreach materials** to share the monitoring results with local communities and stakeholders (*unplanned output*)

Synthesis of results

a) Individual capacity evaluation on target project beneficiaries (only done in Guatemala).

In October 2018, a baseline individual capacity evaluation was undertaken at local and national level. Its objective was to map out the initial status of CSA and gender knowledge, skills, attitude and related practices in the three types of actors targeted by the project (farmers, local and national level stakeholders) in order to compare it with an end line exercise and assess the contribution of the project to the observed changes. In the case of farmers, the questionnaire focused on assessing their level of knowledge on specific CSA practices and their potential impacts on agricultural production but also on climate vulnerability and gender dimensions (i.e access to resources, labor and decision making). With local actors additional questions aimed at assessing their understanding of a Gender sensitive approach, their level of institutional mainstreaming/implementation and monitoring, their perceived individual capacities and needs. Finally, with national level stakeholders, the questions addressed individual perceptions on the importance given to Gender in the political and agricultural sector agenda, their level of knowledge and technical expertise and their capacity to support gender mainstreaming into their institutional work. The end line, who had to be done virtually, was completed between the 6th-20th August 2020. It was send to a wide range of local organizations (44) directly or indirectly involved in CCAFS/IDRC activities in the area of Olopa. In total, nine local stakeholder answered the online survey. None of them were part of the baseline survey. They belong to different local institutions such as: ASORECH (local implementing partner based in Olopa), the local unit of Ministry of Agriculture, Livestock and Food (MAGA), staff from San Juan Ermita Municipality, Centro Universitario de Oriente (CUNORI) , Catholic Relief Services (CRS), Asociación de Servicios y desarrollo socioeconómico de Chiquimula (ASEDECHI) and Mennonite Social Action Commission (local implementing partner from Santa Rita, Honduras). Due to the COVID emergency and the inability to do field work and reach the farmers via ICT tools, this groups could not be covered. These circumstances also restricted the possibility to reach the exact same individuals from the baseline partner organizations, thus the interpretation of the results must be cautious, as they do not show comparative progress at individual nor organization level. Results from the endline show that local level partners have a rather **good knowledge on CSA options and their level of adoption** in the project site, and they cite CIAT/IDRC related activities as source of information as well as the CSA monitoring when it comes to household dynamics and the effect of CSA on gender. They also declare that they are promoting CSA through their own interventions. At national level, partners report low level of integration of gender aspect in country policies and interventions; however, they mention a better integration of gender into micro and macro level (regional, global) policies and interventions. They also mention the positive contribution from the project output: [Step-by-step process to mainstream gender in climate-smart agricultural initiatives in Guatemala](#).

Table 1. Individual capacity status related to CSA and gender knowledge in farmer, subnational and national actors³ involved in the project in Guatemala, at the Baseline and Endline.

FARMERS	
Baseline (from non CSA adopters)	Endline
Some knowledge on CSA practices but gender differences	N.A
Some knowledge on effects of these CSA practices (on production and resilience) but varying according to the practice	N.A
Effect of the CSA practices on gender dimensions: medium level of knowledge : * On access to economic resources (3.3/5) * On work load (3.4/5) * On participation in decision making (3.6/5)	N.A
SUBNATIONAL ACTORS	
Baseline	Endline
<ul style="list-style-type: none"> Good knowledge on CSA practices but low on adoption. 	<ul style="list-style-type: none"> Good knowledge on CSA practices (3.9 and 4.8 /5) Knowledge on adoption, CIAT/IDRC related activities are mentioned as source of information
<ul style="list-style-type: none"> Some knowledge on intra-hh gender dynamics but focus on FS, lack in terms of key dimensions related to agricultural activities (i.e gender roles and decision making. 	<ul style="list-style-type: none"> Medium level knowledge on intra-household gender dynamics , CSA monitoring is mentioned as main source of information
<ul style="list-style-type: none"> Good knowledge on gender sensitive approach & some inclusion in their interventions (food/nutrition security) but Not mention the need to consider differences in vulnerabilities, capacities and needs from women in a CC context, or implications for the design of ag/rural development interventions. 	<ul style="list-style-type: none"> Relatively good level of incorporation of gender knowledge in the design of agricultural/rural development interventions. Moreover, respondents claimed to be promoting CSA practices taking into account gender or social differentiation aspects.
<ul style="list-style-type: none"> Low knowledge on gender aspects in the context of CSA, lack of capacities and resources 	<ul style="list-style-type: none"> Medium level knowledge on the effect of CSA practices on gender, CSA monitoring is mentioned as main source of information
NATIONAL ACTORS	
Baseline	Endline
<ul style="list-style-type: none"> Good understanding gender-sensitive approach (implying addressing women participation, equity and the need to consider specific capacities, needs and interest). 	<ul style="list-style-type: none"> Only Three persons from the MAGA gender unit are aware of the CSA village in addition to other MAGA civil servant Rather good knowledge about gender dynamics and intra-household dynamics in Guatemala. Sources of information mentioned are MAGA extension workers/ MAGA programs, MAGA gender unit/ MAGA gender policy, own research/ experience/ participation in workshops
<ul style="list-style-type: none"> Good integration on their institutional plans/strategies BUT gender strongest mainstreaming in broad political agenda rather than in the agricultural agenda 	<ul style="list-style-type: none"> Rather good integration of gender into policies and interventions at micro and macro level. The CSA guide for Guatemala is mentioned as main source of expertise.
<ul style="list-style-type: none"> Lack of interest from decision maker translates into lack of financial support and specific gender sensitive interventions and impact evaluations. 	<ul style="list-style-type: none"> National actors surveyed acknowledged the importance of gender considerations to achieve rural development objectives. Medium to relatively high importance perceived of the gender issue in the political agenda of the country's current agricultural sector as well as the visibility of gender issue in the political agenda of the country's current agricultural sector
<ul style="list-style-type: none"> Bottleneck to operationalize gender sensitive interventions 	<ul style="list-style-type: none"> Most surveyed admitted they yet have not integrated gender aspects at the micro and/or macro level of ASAC policies and/or interventions.

³ It has to be noted that interpretation of this data is limited (direct comparison is not possible) due to the fact that it was not possible to interview exactly the same individual actors in both the baseline and the endline

Deliverables

- [Individual Capacity Baseline Report](#)
- [Final Capacity Evaluation Report](#)

b) Implementation of the CSA monitoring in Olopa (Guatemala) and Santa Rita (Honduras) climate-smart villages

The CSA Monitoring Framework was developed in 2018, as part of the CCAFS Flagship 2 Learning Platform and the participatory action-research carried out across the Climate-Smart Villages (CSVs) to evaluate the effectiveness of CSA practices and portfolios. Designed to support global evidence building, the monitoring framework provides a set of standard metrics (indicators) to tackle farmers' adoption and their perceived related outcomes in the field. This project provided the perfect ground to expand the implementation of this monitoring framework to two Climate-Smart Villages: Olopa (in Guatemala) and Santa Rita (in Honduras) and strengthen its gender component. The main goal was to support the generation of new knowledge and improve our understanding on the impact of specific CSA options on the livelihoods, food security and adaptive capacity of vulnerable households in the Dry corridor of Central America. Two main research questions addressed by the monitoring:

1. Who in the targeted CSV communities is adopting the CSA practices and technologies promoted? Which are their enabling factors and motivations? To which extent male and female farmers access and use climate information services?
2. Which are the gender-disaggregated perceived effects of CSA options at household level: specifically on farmers' livelihood, food security and adaptive capacity, and on key gender dimensions (participation in decision-making, participation in CSA implementation, control and access over resources and labour). What are the gender-disaggregated perceived effects of CSA options on livelihoods and food security at the household level?

An ICT based system, Geofarmer App (Eitzinger et al 2019) was built to host the different thematic modules of the CSV Monitoring questionnaire -tailored to the Olopa, (Tuma la Dalia) and Santa Rita conditions and ensure systematic and almost real-time data collection. The CSA framework proposes a small set of Core Uptake and Outcome Indicators linked to the research questions, and a set of Extended indicators covering aspects related to the enabling environment (ANNEX 1).

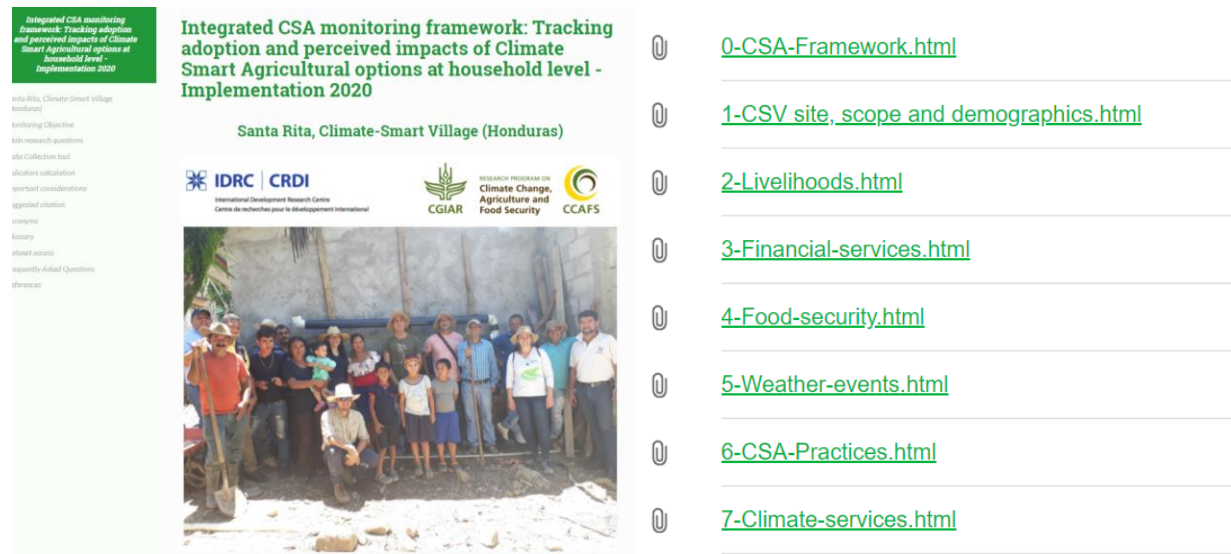
Trainings on CSV Monitoring and implementation in Guatemala, (Nicaragua) and Honduras

The implementation of the CSA monitoring, took place in April 2018 and in February 2020. It was proceeded by a one week-long training workshop delivered to the local partner organization and enumerators teams. The total number of households surveyed in 2018 reached 158 in Olopa and 151 in Santa Rita. In 2020, however, the fieldwork was interrupted by the pandemic and restricting the coverage. In Olopa, 106 households were visited but three initial communities could not be covered. In Santa Rita, the second cycle of the monitoring reached 143 households. In each households, the enumerators aimed to interview two adults of opposite sex: the agricultural-head and her/his spouse or another member involved in on-farm activities to capture gender-disaggregated information.

Data Analyses and Evidence generation

Following the data cleaning process the descriptive statistics and standard indicators of the CSA framework were calculated and published online, organized by thematic areas for a more user-friendly experience.

Figure 2. Illustration of landing page for online visualization on the CSA monitoring results by thematic sections.



Synthesis of results

As illustrated in the webpage, the CSV Monitoring allowed to gather and share valuable information on the households socio-economic characteristics and livelihoods in the two CSV sites and the frequency of climate and non-climate related disturbances affecting agricultural incomes. It also provided for the first time, information of the food security status of the families in the area and the types of coping/risk mitigation actions they are undertaking to respond to climate shocks. Finally, it documents the current access to climate information services and the CSA adoption trends in both Olopa (Guatemala) and Santa Rita (Honduras) in terms of Households, female-headed versus male-headed households as well as at individual level (men versus women). It also provides unique data on the gender differentiated perceived effects of the promoted CSA practices on agricultural production, household's income, food security and diversity as well as on adaptive capacity and the perceived impacts on additional labor, access/control over CSA generated resources and participation in CSA implementation and decision making. This science-based evidence will be crucial to extract actionable recommendations to inform the design and implementation of subnational, national and regional level interventions/plans.

Additionally to the online publication of the Monitoring results (public access), specific report were written by the local partner organizations, this ensured not only validation but also their own empowerment with the outcomes of the process. These reports describe in details who the indicators tackled by the CSA monitoring allow to respond to the key research questions.

Another key deliverables is the synthesis report in which we examine the results from a temporal and geographic perspective, looking at potential trends observed between the onset and end of the project,

as well as to commonalities and differences among Olopa and Santa Rita, two sites that are geographically very close but have quite distinct socio-economic characteristics. Some of the highlights of this synthesis are presented below:

Building on two years of implementation of the Climate-Smart Agriculture (CSA) monitoring framework in the Climate-Smart villages of Olopa (Guatemala) and Santa Rita (Honduras), we i) synthesize results and highlight key insights from the temporal and spatial dynamics observed in farmers' socio-economic, climate and agricultural related conditions; ii) examine the potential gender sensitive and socioeconomic aspects influencing the adoption of the promoted CSA practices and iii) assess the gender and age-disaggregated perceived effects on five outcome indicators: agricultural productivity and income, food access and diversity and labor time.

Temporal dynamics observed during the project period include increases in farmers' agricultural dependency and in the relative importance of on-farm production as main income and food source. Levels of food insecurity increased reaching (45% in Santa Rita and 92% in Olopa) and were higher in households that did not adopt CSA practices.

More than 50% suffered climate related impacts on their agricultural production or incomes, with a higher fraction in Olopa. Between 2017 and 2019, female-headed households became more affected. Simultaneously, the households from both CSVs showed clear increases in the frequency of changes made to their cropping activities; and in Olopa those changes were twice more frequent in CSA adopters. If at the onset of the project, farmers were mostly doing autonomous changes, by 2019 this trend shifted towards been climate-induced.

Despite smaller farms, the percentage of productive area devoted to CSA practices in Olopa was much higher than in Santa Rita. In Santa Rita, CSA adoption was initially twice lower in female-headed households, but by 2019 their relative increase was higher than in male-headed. No statistical differences on CSA adoption levels associated to gender, age or access to education were observed (except for Shadow management in coffee in Santa Rita) but they differed among locations. In Olopa, women trended to adopt more than men while, in Santa Rita, men were the ones who adopted more.

Adoption rates were higher in adults and farmers with some level of education. Only the adoption of water harvesting and bio fertilizers in Olopa was significantly related to education. Four typologies of adopting farmers were identified and relate to living barriers and bio fertilizers in Olopa and home garden and shadow management, in Santa Rita. Finally, for the analyzed practices, the majority of implementing farmers reported positive effects on agricultural production, food access and food diversity. Differences in perceptions on these effects were observed though, based on gender and age range. In Olopa, women reported more often positive perceptions than men, while the opposite was true in Santa Rita.

Deliverables

- Detailed Implementation reports are available for Olopa ([2018](#), [2020](#)) and Santa Rita ([2020](#)) .
- The raw datasets and complementary data collection files associated with the implementation of the "Integrated Monitoring Framework for Climate-Smart Agriculture" were stored in the public Dataverse repository and are accessible online (See Output section)
- Synthesis report: Synthesis and key insights from the gender sensitive Climate-Smart Agriculture monitoring implemented in Olopa (Guatemala) and Santa Rita (Honduras): temporal and spatial dynamics.

- Flickr photo albums:
 - o CSA Monitoring, 2020, Olopa (Guatemala): <https://flic.kr/s/aHsmQWNuD5>
 - o CSA Monitoring, 2020, Santa Rita (Honduras): <https://flic.kr/s/aHsmQWP5Sq>

- c) Producing dissemination/outreach materials to share the monitoring results with local communities and stakeholders (unplanned output)

*** Note: Given the impossibility to carry out face-to-face meetings, this new outputs was developed in order to provide printed materials that local implementing partners will share with the farming communities from Olopa and Santa Rita as soon as the COVID-19 emergency is over.*

Deliverables

- Booklet “Monitoreo de opciones de Agricultura Sostenible Adaptada al Clima (ASAC) Seguimiento a su adopción e impactos en el TeSAC de Olopa (Guatemala)
- Booklet “Monitoreo de opciones de Agricultura Sostenible Adaptada al Clima (ASAC) Seguimiento a su adopción e impactos en el TeSAC de Sanata Rita (Honduras)

4.2 Objective 2: Providing science-based evidence on the links between gender and CSA adoption

- a) Analyze past gender disaggregated CSA adoption trends (results from two previous surveys, 2015 and 2018) in the CSV of Tuma-La Dalia in Nicaragua

This analysis was carried out as an additional input to generate actionable recommendations for future implementation of CSA interventions. It presents the results from a CCAFS gender baseline survey of intra-household aspects of farming households conducted in Tuma La Dalia during September and October 2015 and from CSA monitoring survey conducted in the same site during 2018. [The full activity report](#) analyzed the existing patterns of adoption, socio-economic motivating and constraining factors, the sources of information and decision-making related to adoption providing recommendations and methods for improving data collection aiming at assessing gender-sensitive determinants of adoption.

Synthesis of results

CSA knowledge & awareness

- Gender gap was observed (fewer women are aware of CSA & adaptive practices)

Sources of knowledge

- Gender differences evident in 2015: women’s main source –friends and neighbors, then ICTs, men’s main source – NGOs, then State Technical assistance programs
- No major difference in 2018; overall governmental extension services and NGOs, then self-learning

Adoption

- Low adoption rates, except for reforestation and no burning/crop residue retention practices
- Adoption barrier identified as lack of knowledge (e.g. among aware male/female farmers less than 50% adoption rate of improved varieties)
- Analysis on further inhibiting factors constrained by lack of relevant data

b) Methodological development for gender and social differentiated analysis: Typologies and intra household dynamics (Guatemala)

A second study aimed at developing a research framework and methodological approach that could complement the CSV monitoring data, bringing additional evidence from the field to better understand the motivations, socioeconomic and cultural enabling and constraining factors that influence CSA adoption in smallholder farming communities. This research build on the initial work by Howland et al ([2018](#)), which proposes the construction of a typology of farmers according to their adoption trends, socio-economic characteristics and cultural norms.

Deliverables

- [Activity Report: Methodological development and piloting: Typological and socio-economic analysis of enabling and constraining factor to CSA adoption and related gender sensitive outcomes](#)

*** Note: The finalization of this stream of work was supposed to be part of the Master research of a Guatemala student from Zamorano University that was enrolled in the project. However, the quarantine declared since March 2020 obliged us to cancel this plan.*

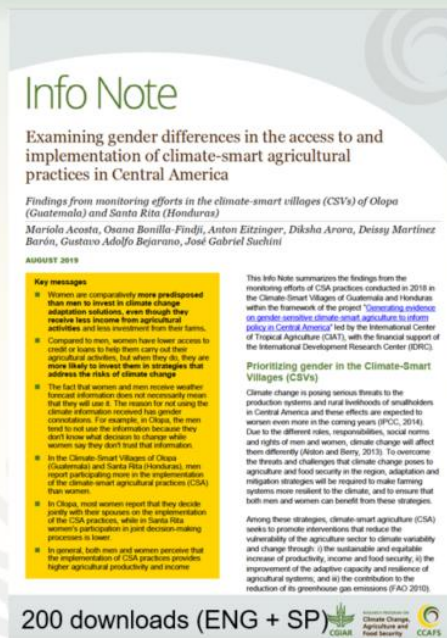
c) Examining gender differences in access to and implementation of climate-smart agricultural options in Central America

This initial gender-sensitive analysis was conducted after completing the first monitoring cycle (2018) in Olopa (Guatemala) and Santa Rita (Honduras) Climate-Smart Villages, to foster knowledge sharing within the project life cycle. The results were published as a [CCAFS Info Note](#).

Synthesis of results

✓ Gender sensitive analysis of CSA Monitoring data

<https://cgspace.cgiar.org/handle/10568/103471>



Olopa: 279 Farmers

Santa Rita: 256 Farmers

- 152 women, 122 men
- 158 households

- * 127 women, 129 men
- * 158 households

=> Most men & women, perceive an increase in the production and income derived from CSA

- ✓ Women receive a lower personal income from agriculture & less access to credit → but greater willingness to invest in income and credit in solutions to adapt and mitigate climate change.
- ✓ Geographic and gender differences in the access and use of climate information - need for targeted climate information that fits the needs of men and women in each territory
- ✓ Men greater perception of participation in the implementation of CSA practices than women. The participation of women in the decision on the implementation of these CSA practices was greater in Olopa than in Santa Rita.

d) Examining women's differentiated access to climate-smart technologies, climate finance, and climate services in Latin America

In 2020, and as part on the innovative project management imposed by COVID-19, we initiated an unplanned study that aims at providing a more nuanced understanding of issues surrounding climate change adaptation processes for smallholder farmers in Latin America, using the case of Honduras, Guatemala, and Colombia. Specifically, we study **female farmers** living within the geographical limits of the 'climate-smart villages' located in these three countries. The study constitutes in this way an exploration of the intersectionalities among socio-economic and demographic factors characterizing smallholder female farmers in these climate-smart villages in Latin America. In particular, this analysis examines differences and commonalities among women in the climate smart villages in terms of i) the number and type of CSA practices they employ, ii) their access to, and use of, climate forecast services and iii) their access to, and use of, financial resource and services (specifically as they relate to adaptation and recovery to climate change induced shocks and stresses on farming enterprises).

An advance version of the paper is available and we plan to finalize and submit it to a peer review journal by the end of the year.

Synthesis of results

- The analysis of socio-economic and demographic drivers of increased use of CSA practices for women in the CSVs of Santa Rita, Olopa, and Cauca shows evidence of interactions between education level and main household income source, as between age and land area as well as land area and type of land tenure, indicating that there are meaningful intersectionalities among these socio-demographic factors and that care is needed in the interpretation of findings. These results are suggestive of non-additive relationships between individual socio-demographic factors and CSA practice use, particularly as regards education level, which may warrant specific consideration, or at least further research, in the design and evaluation of development initiatives and communication and extension strategies. **The evidence suggests that the conclusions will be misleading if individual socio-demographic factors like education are considered in isolation.**
- For the CSVs of Olopa, Guatemala and Santa Rita, Honduras, the analysis shows that **differences among villages and, to a much lesser extent, ethnicity, account for larger differences in the adoption** of specific practices among women than individual-level socio-demographic factors. This would be consistent, inter alia, with a situation in which village-level socio-economic factors (e.g. state of transportation infrastructure and accessibility of markets), village-level agro-climatic factors (e.g. microclimates, soil chemistry), and/or social network components (e.g. existence of and engagement with farmers' cooperatives or farmer field schools; involvement with agricultural development projects) are driving differences in the uptake of CSA practices.
- The analysis of socio-economic and demographic drivers for the access to, and use of, climate forecast services among women shows evidence of **important interaction terms, particularly between household status and land tenure**, while evidence for a main effect of land area under cultivation also appears strong. Regarding the relationship between household status and land tenure, preliminary results show example that the relative ranking between those who primarily rent their land, on the one hand, and those who either own or simply work their land on the other, is contingent upon whether the woman in question is from a single- or dual-headed household. Specifically, **women from dual headed households who rent most or all of their land are actually more likely to make use of available climate forecast services than their counterparts who own land.** The opposite is true for women living in single headed households: **women from single headed households that own land are more likely to make use of available climate forecast services** than those who rent most or all of their land.
- The analysis of the types of financial resources and services available to female respondents from Santa Rita, and how they used them, specifically in reference to preparation for and recovery from climatic stresses and shocks to their farming operations show that, not surprisingly, substantially more reporting receiving income from farming (nearly 80% of respondents) than being able to make savings from that income (nearly 50%), and fewer still received a loan to finance farm operations (approximately 25%). Somewhat more surprisingly, however, is that **more than half of respondents (54%) reported making recent investments in their farming operation and nearly half of these** – almost one in four of all respondents – reported investing specifically **in recovery from a climatic stress or shock.**

4.3 Objective 3: Increase farmers/local level organizations' capacities to plan for and access, implement and monitor gender sensitive CSA

a) Socialization of CSA monitoring results and outreach

A dissemination workshop was held in October 2018, in Olopa with farmers selected from the different villages covered by the monitoring exercise, local stakeholders, authorities and institutions. The monitoring results were then presented in thematic sections guided by illustrated graphics and followed by group discussion meant to strengthen farmer's knowledge on the CSA practices and their potential to improve their capacity to face climate-related events. The resulting game can be played in two scenarios: as board game in a room where all players are present and as a virtual game where participants are connected through a video call.

Synthesis of results

The feedback from the socialization workshop provided the opportunity to validate the results and understand the processes behind the observed data. Farmers pointed out that the high share of income from off-farm work is related to day labor on other larger farms, mostly for coffee harvesting. They said "if there is no coffee, there is no work!" Consequently, when the global coffee price declines, temporal migration increases. Most critical month for food security are the month between June and August, before start harvesting the next crop cycle. Farmers depend on off-farm income for sustaining food security throughout the year, which is paid 25 to 30 Quezales per day (3 to 4 USD per day). In general, farmers in the Olopa area own their farms and in many cases a small plot where they grow coffee for income generation. However, access to land is an issue and most farming families rent the land for growing grains, mostly for growing the food crops maize and beans. The effects of climate are different depending on the location of the community. While in the high altitude areas, i.e., Nochan, negative climate effects are caused by heavy rains. In the low altitude areas, especially in the valleys, there are fewer effects due to rain, however, these areas are mostly used for grain production and are more likely effected by droughts. Farmers mostly rely on bio-indicators to predict the weather, many farmer consider them more reliable as forecasts from radio and television, and they perceive them to be too general.

Thought "Home gardens without water harvesting" was the most implemented CSA practice in Olopa, farmers recognize that access to water throughout the year was an issue, as infrastructure for water harvesting/irrigation was not available to all households. Farmers mentioned that they have tested the new "drought resistant beans variety", but it has not been long enough perceive positive/negative effects. They mention, that preferences from buyers at the local market is a very important trigger for decision making about what variety they prefer to grow. Participants from local institution found it to be very valuable to know how CSA practices contribute to adaptation in the region. They commented during open discussions that monitoring of implementing CSA practices in Olopa can serve to improve arguments for obtaining more support from institutions. Collected data and indicators could be complementary to other data that have been collected by local actors. A second dissemination "tour" was planned to take place in June 2020, both in Santa Rita and Olopa to share and discuss the results from the second year of CSA monitoring. Due to the Covid, these plans were cancelled and instead we focused out efforts in producing new outreach materials. These materials (based on infographics to facilitate understanding by a population with very low literary) will be used by local implementing partners how will set up these information sharing dialogues as soon as it will be possible. Despite the end of the IDRC project, they committed (and are really looking forward) to do this, embedded in their ongoing interventions.

b) Capacity building for farmers and local organizations: co-development of economic games

We designed, developed, and tested a choice game called 'Cultivando para Ganar' (Cultivating to win). Using a game approach that followed five principles: i) promote experiential learning, ii) provide a safe learning environment to test alternative decisions, iii) increase awareness through simulation of outcomes and show mismatches of players mental models within complex systems dynamics of climate change, iv) offer a learning potential through changing players' mental models, and v) make science more readily accessible. The overall goal of the game was to understand the decision-making processes of farmers for the adoption of CSA practices under the threat of climate risks.

A first version was tested in October 2018 with farmers and extension technicians from both CSVs (Guatemala and Honduras). A two-day capacity building exercise based on economic choice games was carried out with a sub-sample of farmers, representing the different types of households found in Olopa Guatemala, i.e., we selected households that adopted CSA practices and households that did not adopt practices. The rationale of this approach was to understand the difference in perceptions about the usefulness of CSA practices between the two groups, but also to provide a game-like environment and observe if non-adopters would overcome the barriers of real life, and 'try-out' CSA options and observe results without running the risk of real economic losses. Game participants could become a winner and go home with a symbolic prize. After the capacity building exercise with farmers, in May 2019, a second workshop was organized with (the new) local partners with the aim to co-designed an improved the initial version of the game. Teams from the local NGOs ASORECH and CASM met with researchers from CIAT and CCAFS. They first played the game in the same way as it was played with farmers and then started co-designing the final game, providing feedback to researchers, and developing the details for the game elements. In 2020, because of the COVID-19 restrictions it was not possible to get back to the communities to play the final game and implement the final capacity building activities. Instead, we developed the virtual version and played it in two sessions. First with a group of scientists, and finally with national stakeholders in August 2020.

The final version of the game was published and other capacity workshops for Game moderators are already scheduled and will be virtually held during the months of October and November 2020. Attending the capacity workshop for Game moderators, participants will be able to prepare and carry out the game on their own.

Deliverables

- Final Report of Activity: Eitzinger A, Martinez-Salgado JD, Howland F, Bonilla-Findji O. 2020. [Cultivando para Ganar - Choice Game for climate action](#). CGIAR Research Program on Climate Change, Agriculture, and Food Security (CCAFS).
- Landing Page and Download of Game Kit: <http://cultivandoparaganar.s3-website-us-east-1.amazonaws.com/>

c) Strengthening capacities of national level actors

Synthesis of results

Guatemala

With the support from CCAFS, the Gender and Climate Change Units from the Ministry of Agriculture, Livestock and Food (MAGA) of Guatemala spearheaded the development of a national document that

would guide policy actors in the design, implementation and monitoring efforts of climate-smart agricultural initiatives in the country. The document is the result of four different participatory and capacity building workshops, involving 22 different organizations. During the first of this series of capacity building workshops, which occurred on October 2018, policy actors revealed the need for strengthening the inclusion of gender in their day-to-day activities, and the need to create more robust monitoring systems that integrate gender indicators aimed at improving the adaptive capacity against climate change (more detailed information from this first workshop can be found here). It is within this context that MAGA decided to spearhead the development of the guide: 'Step-by-step: the process to mainstream a gender component in climate-smart agriculture initiatives for Guatemala'.

The participatory nature of the process allowed these twenty-two organizations to fully provide input and guide the development of the content, the organization of such content, and reviewed the entirety of the text in the guide to ensure that the document is context-specific and reflects national priorities. Derived from this process, there has been a high ownership of this document among participant institutions, especially among the Gender and Climate Change Units at MAGA. The document was officially launched on September 9th, 2019, with high-level representatives from MAGA, and was framed by MAGA as a key document responding to the implementation of the Regional Strategy for Climate-Smart Agriculture for the SICA region (EASAC). The Gender Unit has already started a dissemination campaign, with the distribution of the guide, together with capacity building activities, to 36 extension agents and technical personnel.

This process has served as a first step to move towards a better inclusion of gender issues in climate-smart agricultural interventions in Guatemala. Among others, the participatory workshops evidenced the relevance and need for these types of capacity building materials, and also the importance to consider local views and perspectives when designing training materials. The outreach activities within the Central America region have also shown the interest of ministries of agriculture of other nations (see below the example of Honduras) to continue sharing gender activities within their territories, to learn from each other and together strengthen the inclusion of these gender issues in agricultural development activities, within a context of increase threat by climate change. It is within this context that the guide was also translated into English, with the hope that the learning experiences from the case in Guatemala can be informative and be adapted to other contexts beyond the Latin America Region.

Finally, as part of the dissemination processes and showing the interest of these types of materials, the Ministry of Agriculture, Livestock and Food (MAGA) of Guatemala has developed a shorter and synthesized "Mediated" version of the guide targeting agricultural extension agents in Guatemala to reinforce the key gender and climate change components in the activities that the rural extension agents conduct across the country. A virtual launching workshop is planned for October 2020.

Honduras

On February 11th 2020, we organized a public talk at Directorate of Agricultural Science and Technology (DICTA) of the Ministry of Agriculture and Livestock (SAG) in Tegucigalpa, Honduras. The public talk had the main goal to disseminate the progress of the IDRC project and explore new opportunities for collaboration around the topic of climate-smart agriculture and gender with national institutions. About 30 people attended from SAG, the National Program for Agrifood Development (PRONAGRO), the Canadian Embassy, GIZ, FAO, IDB, SOCODEVI, Swiss Contact; Foundation for Rural Business Development (FUNDER) SENASA, National Autonomous University, University of Zamorano, and Tres Valles Sugar Company. Following from this event and from the participation in the other outreach activities that took place within the Central America region, the Gender Unit of the Ministry of Agriculture and Livestock (SAG)

in Honduras showed an interest to organize a webinar with other institutions in Honduras. The [webinar](#) was organized on May 26th, and had as main objectives to share with national actors the experience and contents of the guide " Step-by-step process to mainstream gender in climate-smart agricultural initiatives in Guatemala" developed within the framework of the IDRC project, and foster incorporation into the development of the gender policy of the Honduran agricultural sector. As a result from these engagements, the Gender Unit of the Ministry of Agriculture and Livestock (SAG) adapt the gender guide to the Honduran context. After this interest, CCAFS researchers engaged closely with them to develop a new guide that could help policy actors and extension agents in introducing a gender component in their climate-smart agricultural initiatives. Specifically, the adjustments made included changes in the language and in the images used to ensure they were reflective of the Honduras context, and the addition of some case studies from Honduras. Similarly, the sections of 'Legislative framework' and the 'Methodological process followed to prepare this guide' were adjusted to reflect the case in Honduras. The guide was finalized in September 2020, and it is expected to be officially presented during the last quarter of 2020. It is hoped that the guide will be distributed to, and used by, extension agents during 2021 and onwards.

Deliverables

- [Workshop report: Strengthening capacities of national level actors to design and implement gender sensitive CSA interventions \(Guatemala\)](#)
- Guía Guatemala (Spanish): [“Paso a paso para la inclusión de género en iniciativas de agricultura sostenible adaptada al clima para Guatemala”](#); (English version): [“Step-by-step process to mainstream gender in climate-smart agricultural initiatives in Guatemala.”](#)
- Mediated Guide for extension staff (Spanish): Guía para la Inclusión de Género en Iniciativas ASAC: [Mediación para Extensionistas. Ministro de Agricultura, Ganadería y Alimentación \(MAGA\)](#). 2020
- Presentation and list of participants attending the public seminar held at DICTA (Tegucigalpa, Honduras) on 11th February 2020
- [Webinar](#) 26 May, 2020 **Presentations:** Gender integration in agriculture, food security and climate change policies: the case of Honduras and Step-by-step process to mainstream gender in climate-smart agricultural initiatives. 22 participants (17 women and 5 men). We had participants from the climate change and gender units from the Honduran Agriculture Secretary, as well as the participation of CUSO International.
- Guía Honduras: [“Paso a paso para la inclusión de género en iniciativas de agricultura sostenible adaptada al clima para Honduras”](#)

d) Strengthening capacities in academia

*** Note: Even though the outcome for the strengthening of capacities in academia was not originally designed and included within the original planning of the IDRC Project, we thought this was an important area where the project could make a real impact on the future of agricultural professionals of the region.*

We partnered with Zamorano University in Honduras, a university that is a point of excellence in the region for agricultural and life sciences higher education. Contact established with the dean of the Master program in Sustainable Tropical Agriculture (MATS) Dr. Arie Sanders in the Zamorano University in Honduras to motivate them to integrate in their curricula the topic on the nexus between Gender, Climate Change and Agriculture. As an input, we designed a two-day course on gender, agriculture and climate change for the graduate students of the Zamoranos' Masters. This seminar which took place on the 13-

14th February 2020, aimed to provide participants with a basic understanding of the linkages between gender, agriculture and climate change. A special lecture was delivered to undergraduates and an exchange meeting was held with Zamorano academic board to discuss the development of a gender and climate change curriculum.

Synthesis of results

The practical approach of the course enabled participants to put into practice the inclusion of gender in concrete examples of agricultural research in a context of climate change. The seminar combined short lectures with group learning activities and discussions. The course used relevant research examples from the CGIAR Climate Change, Agriculture and Food Security Program (CCAFS) to examine gender issues in the different domains of climate-smart agriculture. These materials are now ready to be used and implemented in other universities in the Latin America region, if new opportunities arise.

In particular, the two-day seminar was organized in five main sessions. The first was an introductory session with some a participatory activity to bring the attention to different forms of social discrimination. The second session provided participants with a base knowledge on key concepts (e.g. gender equality, equity, intersectionality), a brief history of the gender approach in agriculture and the environment, and an overview of key issues when examining or addressing women's empowerment in agriculture. The third session examined the nexus between gender, climate change and agriculture; the practical and strategic gender needs in a climate change context; the gendered vulnerabilities and opportunities in climate-adapted sustainable agriculture and the gendered implications of Climate-Adapted Sustainable Agriculture (ASAC) Practices. The fourth session examined methodological issues, describing key gender questions in agriculture and climate change research, examining the practical and policy implications of household and intra-household analysis; and the complementarity of quantitative and qualitative analyses. The fifth session presented the students with two practical case studies, one examining cashew production and women's empowerment in the Gulf of Fonseca, Honduras; and the other examining a climate-smart monitoring system being implemented in the CSVs of Santa Rita, Honduras, and Olopa, Guatemala. The sixth session was of a practical nature, where students critically reviewed a scientific journal article and, in groups, designed and presented their recommendations to make the study gender-sensitive.

Aside from the two-day seminar course with graduate students, we also gave a two-hour science talk where undergraduate students from different disciplines were presented with an overview of the linkages between gender, agriculture and climate change issues, and exposed to the different indicators that are used to monitor these issues within the context of this project in the CSVs of Olopa, Guatemala and Santa Rita, Honduras.

The two-day seminar course was followed by 18 participants, while the undergraduate scientific talk was attended by 26 students.

Finally, we also organized a meeting with 9 professors at Zamorano University to give them an overview of the gender activities in the IDRC project, and to further discuss the possibility of establishing a Gender and Climate Module within their academic curriculum. Although these conversations are ongoing, the meeting showed an initial interest of the University to engage with such endeavors in their future academic curriculum.

In the medium and long term, we hope that these collaborations with academic institutions can help strengthen the integration of gender issues into the academic curriculum of undergraduate and graduate agricultural programs in the region, in order to ensure that the professionals of tomorrow can mainstream gender equality and women's empowerment issues into their professional activities.

Deliverables

- Training materials on Gender for MBs program on the linkages between gender, agriculture and climate change. (upon request), Course Program, List of Participants and Students Feedback
- [Training material Undergrad Seminar](#) and List of participants (upon request)
- List of participants in the Zamorano Staff meeting (upon request)
- [Blogpost by The University of Zamorano](#) describing the importance of the course for the Masters in Sustainable Tropical Agriculture (MATS).

e) Students research training

Master thesis to obtain the title of Master of Science in Sustainable Tropical Agriculture

This sub-activity was designed to strengthen the linkages with regional academic institutions, but it was very challenging due to the difficulties to match the project activity plans with the students' calendars and then because of the COVID-19 emergency that delayed academic programs. Indeed, by the end of 2019, we managed to enroll a Master student from the Zamorano University (Honduras). Veronica Tax attended the CSA Monitoring training held in Olopa en February 2020 and presented her master project proposal to the university committee in June. She could not do field work in the spring as initially planned but it has been confirmed that she will focus her research on exploring the impacts of CSA adoption on household food security in the Climate-Smart Villages of Santa Rita (Honduras). For the above explained reasons the activity has not yet reached any outcomes yet but the MSc. Thesis and an InfoNote are currently being developed. These products will be finalized by the end of the year, except for the MSc. Thesis, which is expected for the second quarter of 2021 (June/July).

Deliverable

- Zamorano master thesis progress report presenting the new agreed calendar for final delivery

Internship work of local undergrad students on the assessment at farm level of the adoption of CSA practices by farmers

This activity involved two students of Zamorano University. The aim of their internship work was to assess the effect of CSA practices at farm level. Indeed the farm can be a relevant scale of assessment in order to capture changes implemented in the various cropping and livestock systems by the adoption of an innovative practice. The students were first trained on data collection using Geofarmer. They subsequently collected data for 83 farmers, 43 in the Honduras and 40 in Guatemala Climate-Smart Villages during the implementation of the CSA Monitoring carried out in March 2020.

For data analysis they used a tool developed by CIAT that allows to assess farm performances under the CSA pillars using a limited set of indicators such as gross margin, farm diversification, or greenhouse gas emissions ([Osorio-Garcia et al 2019](#)). The CSA calculator was then parametrized for the specific context of Central America: they have for example to estimate the costs of the specific practices promoted in the site, or to look at specific parameters such as caloric value for the crops found in the study site. The

students then explored two scenarios: with and without practice introduction. The first simulations show as expected contrasted climate smartness of the practices according to farm resource endowment.

Covid-19 made very challenging the interaction interactions with students. We took the decision to simplify the data analysis in this context. Particularly, not all the spots of greenhouse gas emissions were taken into account. The Internship report “La Agricultura Sostenible Adaptada al Clima: Calculando su Impacto” is expected to be delivered in October.

4.4. Objective 4: Feed evidence from local level into national and regional policy dialogue

The improved understanding on how to promote empowerment of women in different types of households (incl. female-headed households) with gender- and socially-inclusive adaptation/ resilience building agricultural options can: i) contribute to scaling up CSA solutions to the regional and national levels, ii) increase positive outcomes, and iii) reduce gender-related inequalities.

This activity aimed to ensure that the emerging results from the *project* contribute to the regional CSA scaling efforts through informing the implementation of regional/national policies and strategies for climate adaptation and development investment, including the regional CSA strategy. It is also expected that the lessons learned from this project will provide useful information to the Central American Integration System's Council of Women's Affairs Ministers (COMMCA) who is promoting inclusion of gender in climate change adaptation and mitigation regional strategies through the implementation of the Rural Women's Agenda in 2020, with a special focus in Honduras who recently hold pro-tempore direction of CAC.

Synthesis of results

Co-development of working plan with the Central America Agricultural Council (CAC) and national institutions from Guatemala and Honduras to implement the gender component of the CSA regional strategy

Guatemala, as former president of CAC, led the development of the Gender Guide to support the implementation of the Regional Strategy for CSA for the SICA region (EASAC) and its promotion through an Official statement from the Ministry of Agriculture (MAGA) disseminated to key stakeholders in the SICA region. Along this process, the project team participated at a meeting of the CAC's Gender Network with the presence of the COMMCA Secretary, Alicia Rodriguez, in March 2019. This engagement continued so that both COMMCA and the project team shared information about their work in Central America and identified collaboration opportunities.

The positive feedback on the results of the co-development of the Gender manual triggered two important demand-driven outputs:

- 1) The development and implementation a webinars series on “gender and CSA” hosted by the Central American Agricultural Council (CAC):

- June 2019 [Webinar](#): Presentation of the manual on Gender and Climate-Smart Agriculture to Technical advisory group of Regional bodies CAC Gender Network/COMMCA and key stakeholders of the SICA region
- November 2019: [Webinar](#): Learning about the results from the CSA Monitoring implemented in the Climate-Smart villages of Olopa and Santa Rita and the differential effects on gender dimensions (attended by 70 people)
- June 2020 [Webinar](#): Challenges and opportunities to achieve gender equity in climate services. Presentations: [Local Technical Agoclimatic Committees in Central America: Climate services, gender equity and social inclusion](#). 55 participants (30 women, and 25 men), from the Ministries of Agriculture and livestock, and the Meteorological Services of the region; also, we had the participation of the Executive Secretary of CAC and some regional organizations like IICA, HELVETAS and FAO.
- August 2020 [Webinar](#): Gender inclusion in livestock practices in Latin America. Presentation: [Gender inclusion in livestock practices in Latin America](#). 31 participants (16 women, and 15 men), from the Ministries of Agriculture and livestock of the region, the Ministry of Economics of El Salvador, the Executive Secretary of CAC, FAO, The University of Barcelona and The University of Purdue.

- 1) Development of a roadmap to implement the strategic line: *Facilitating mechanisms for integrating the equity principle and gender equality, as well as the intergenerational and social inclusion approach in CSA actions* of the CSA Strategy for the SICA Region.

For this, a work of analysis of public policies and interviews with different actors of the SICA region (CAC, COMMCA, CCAD, gender units of the Ministries of Agriculture) was carried out to identify key actions to implement at different levels: regional, national, and in the territories.

Deliverables

- Chaves A, Giller O. 2020. [Enfoque de género de la Estrategia de Agricultura Sostenible Adaptada al Clima \(EASAC\) para la región del SICA: Acciones clave para la implementación de la línea estratégica de Género de la EASAC](#). CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).
- Outreach [Webinar](#), 10 September 2020: Roadmap to implement the strategic line: Facilitating mechanisms for integrating the equity principle and gender equality, as well as the intergenerational and social inclusion approach in CSA actions of The Climate Smart Agriculture Strategy for the SICA Region (2018-2030).

Communication products

- Project page in the CCAFS website: [Generating evidence on gender-sensitive climate-smart agriculture to inform policy in Central America](#)
- *Blog posts*
 - [El diseño de tecnologías de agricultura sostenible adaptada al clima \(ASAC\) con sensibilidad de género: una necesidad para el futuro de la agricultura en Guatemala](#) (Nov 1, 2018)
 - [Gender, climate change and agriculture: Guatemala leads regional dialogue](#) (June 12, 2019)
 - [Playing to achieve sustainable agriculture](#) (August 20, 2019)
 - Gender Guide launch [Agriculture, food security and climate change with a gender lens](#) (Sept 6, 2019)

- Gender Guide launch “[Guatemala se prepara para fortalecer la integración de género en sus proyectos agrícolas](#)” (Sept, 2019)
- [Special newsletter](#) distributed to participants of the project activities.
- Press release for the Gender manual (Annex 2) sent to the CCAFS LAM database (more than 700 contacts including journalists, representatives from Ministries of Agriculture and Environment, wide range of environmental and agricultural organizations working in the region, research centers, universities and consultants among others).
- Promotion of the CAC webinars series done among our Latin American list of key contacts and promoted through social media:
Invitation: [Challenges and opportunities to achieve gender equity in climate services](#)
Social media: https://twitter.com/cgiarclimate_LA/status/1277950372905127936
<https://www.facebook.com/SECAC/posts/3301796699844399>
Invitation: [Gender inclusion in livestock practices in Latin America.](#)
Social media: https://twitter.com/cgiarclimate_LA/status/1293929706044239872
https://twitter.com/SE_CAC/status/1291052486816673801
<https://www.facebook.com/SECAC/posts/3405161969507871>

This [thread](#) was published through CCAFS **Twitter** profile during the webinar. The thread includes key messages from the presentation. In total, the thread obtained 4019 impressions and 50 interactions.

Contribution to expected outcomes

The project design aim to contribute to three long-term impacts (which, per definition will not be able to be measured in the short term):

Outcome 1: Reduced production risk and increased resilience of vulnerable households to climate variability and/or related stresses through enhanced capacities of men and women farmers to access and implement CSA options.

Outcome 2: Enhanced capacity of local organizations to plan for, implement and monitor gender-sensitive CSA interventions that help reducing gender inequalities.

Outcome 3: Improved adaptation and rural development policies at national and regional levels that integrate gender and social inclusion considerations

Intermediary outcomes achieved were:

- Farming communities from Olopa and Santa Rita
 - have improved their CSA awareness and knowledge on gender issues/dynamics that affect adoption of CSA options
 - have improved their decision-making capacities related to planning for CSA in their farms through economic games
 - have increased the adoption of climate smart agricultural practices (that enhanced their production, food security and adaptive capacity in the face of climate variability)

- Strategic CSV partners (ASORECH and CASM) and local stakeholders (e.g Centro Universitario de Oriente, San Juan la Ermita Municipality, Catholic Relief Services) have:
 - an improved understanding of the adoption levels of selected CSA practices, and farmers' perceptions on their effects on Food and Livelihood security, Adaptive capacity and Resilience in Olopa and Santa Rita
 - an improved understanding of farmers' perceived effects of CSA practices on labor, control over resources, participation in decision making
 - are able to identify entry points to mainstream gender sensitive CSA options into their interventions and are also able to identify further CSA capacity building needs
 - ASOREACH and CASM are able to use the Role games methodology to strengthened farmers decision-making and agricultural planning capacities based on climate information.
 - have improved their capacities to design, plan and monitor new CSA and gender sensitive interventions building on their new knowledge
- Strategic staff in the Ministry of Agriculture and Livestock (MAGA) of Guatemala, in the Secretary of Agriculture (SAG) of Honduras and governmental institutions staff in Central America have:
 - improved knowledge and skills to incorporate gender in micro and macro level policies, are able to identify concrete mechanisms to use tools and/or gender inclusive CSA approaches within their initiatives/programs/projects
- CAC and COMMCA increased their dialogue, identified and implemented common actions to work together using the project results.
- CAC's Climate Change and Integral Risk Management Technical Group strengthened its agenda with a gender sensitive component in the frame of the Regional CSA strategy implementation
- (** Unplanned outcome): A high level academic institution from the region (Zamorano University) benefited from the project outputs to mainstream new generated knowledge on Gender, Agriculture and Climate change into the current master level curricula

Annex 3 illustrated in detail the intermediary outcomes achieved and which were the specific project outputs and/or activities that contributed.

4.5 Research partnerships as result of IDRC funding

The project contributed to strengthen a research partnership for improved food security policies and decision-making in the SICA region through the close and continuous engagement with CAC and the Climate and Gender Units from the Ministry of Food, Agriculture and Livestock of Guatemala (MAGA) and the Secretariat of Agriculture and Livestock of Honduras (SAG). As documented in the individual evaluation survey carried out at the end of the project, both MAGA and SAG staff improved their capacities to include gender perspective in their CSA programs and interventions.

At the regional level, the project contributed to the integration of CAC, COMMCA, and the Central American Commission for Environment and Development (CCAD) around Gender and CSA through their active participation in developing the roadmap, which included the different regional perspectives on agricultural, gender, environment and economic empowerment. We have joint efforts with a CCAFS led project “Shaping equitable climate change policies for resilient food systems across Central America and the Caribbean” that aims to strengthen policy formulation processes in the SICA region.

At the national level, the Gender Unit of MAGA have acknowledged (Annex 4) that their capacities on climate change and gender nexus have improved after the development of the guide *“Step-by-step process to mainstream gender in climate-smart agricultural initiatives in Guatemala”*. They also acknowledged that the relationship with the Climate Change Unit has strengthened and now they have more capacity to contribute to the development of climate change and agriculture projects and proposals with a gender perspective.

CAC acknowledge the contribution of our joint work within the framework of the project through a formal letter (ANNEX 5). Moreover, the MAGA’s Gender Unit mentioned that this has been an enriching experience during an interview. They also shared with us the Guide they developed for rural extensionists, as well as an acknowledgement letter summarizing the results of the joint collaboration with CCAFS / CIAT and IDRC.

At the local level, both partners in Guatemala and Honduras (ASORECH and CASM) used the strengthen CSA work supported by the project to formulate new project proposals for their zones of intervention (beyond the CSV sites) which have been approved:

- “Condiciones de adaptación climática con equidad de género para la seguridad humana de comunidades de la region Ch’orti del corredor seco de Guatemala YAXAX SAK” (to the International cooperation AACID o Junta Andalucía);
- "Fortaleciendo la resiliencia para la seguridad alimentaria con enfoque de género e interculturalidad para población Chortí en Chiquimula" (to AECID, or Spanish Cooperation), and
- "Capitalización de prácticas y experiencias innovadoras de adaptación de la agricultura Familiar al cambio climático en 7 comunidades de la región Maya Ch’orti de Guatemala" (to IICA/IFAD). This approved project will continue the CSA scaling in Olopa and apply the CSA monitoring instrument and associated indicators used in the IDRC project.

4.6 Governance

Within the Alliance of Bioversity International and CIAT, we see gender equality and equity as human rights, and regard gender responsiveness as integral to an approach that best supports progress towards achieving the Sustainable Development Goals. Investing in gender-responsive and socially inclusive

research is a basic requirement for delivering the high-quality outputs and outcomes we are committed to producing, and that equitably serve the needs of our clients. This builds on our long tradition of participatory-inclusive research. Poverty alleviation is woven into our vision.

As part of the climate smart village approach, we sought to understand the roles within the farm and the household will be key to leverage sustainable innovations increasing inclusion and empowerment of these groups (e.g. traditional knowledge to co-design and adapt solutions at the local level). The project supported local stakeholders building their capacity to support their efforts for enhancing livelihoods of the most vulnerable population (women, youth and indigenous).

4.7 Research Ethics

For the implementation of the CSA monitoring in both Olopa and Santa Rita, household surveys were design and, following [CIAT's policy we went through and Institutional Review Board process](#). CIAT upholds the highest standards in the ethical conduct of research, including the protection of human subjects, enabling its staff to conduct research in a timely and efficient manner. CIAT is required to establish an IRB to review all research that directly or indirectly involves human participants under the policy of Protection of Human Subjects of Research. All the relevant files as well as informed consent used in the project are available upon request. In the fieldwork, we ask and record farmers consent to participate in the survey and only proceed if they electronically recorded consent, under our commitment of ensuring confidentiality. All the data collected were checked to remove any personal information (e.g phone numbers). Names were not recorded in the survey, instead we used community-household-gender codes.

4.8 Use of research results

Along the project life many results (re: tools development and training materials) were shared with technical staff at national (Guatemala, Honduras) and regional level stakeholders through the CAC network as described in this report.

At regional level, members of the executive secretariat of CAC, the CAC gender network, COMMCA, and CCAD strengthened their capacities through the development of the roadmap; this process strengthened their understanding on how to develop policies with a transformative gender approach, as well as, the identification of key actions to implement CSA with a gender perspective at the different scales.

In Guatemala, motivated by the project outputs, MAGA's gender unit entirely led the initiative to develop a [Mediated version of the gender and CSA guide for rural extension agents](#), which will be launched via a virtual webinar in October 2020 and its currently downloadable from the Ministry's website (<https://www.maga.gob.gt/download/mediext20.pdf>).

In the context of the development of the roadmap to implement the strategic gender equality line⁴ of the CSA Strategy for the SICA Region, the SAG's Gender Unit in Honduras requested support from CAC and CCAFS to update their Gender Policy for Honduran agricultural sector. The COVID crises has delayed the process but we expect to be able to identify new opportunities to continue providing technical support. A first inputs has been the recent publication on the Gender Manual "[Paso a paso para la inclusión de género en iniciativas de agricultura sostenible adaptada al clima para Honduras](#)".

⁴ *Facilitating mechanisms for integrating the equity principle and gender equality, as well as the intergenerational and social inclusion approach in CSA actions*

At local level, the CSA monitoring tool is now been integrated in a new IICA-funded project led by ASORECH (Implementing partner in Guatemala). It has been adjusted and tailored to their needs but ensures the coverage of the key CSA indicators developed by CCAFS/CIAT. Beyond this, all the data collected in the Climate-Smart Villages now translated into outreach materials and synthesis reports will provide unique evidence to subnational and national actors in these target countries, on the gender disaggregated adoption trends and enablers and constraints associated to CSA practices. It also provides context and gender specific evidence on the perceived effects on those practices on households' productivity, incomes, food security and adaptive capacity that will be key insights to inform the design of future interventions.

4. Synthesis of results towards AFS themes

- *Increasing agricultural productivity (Availability)*

This project has contributed to the generation of science-based evidence on the context specific and gender sensitive effectiveness of climate smart agricultural practices and technologies, which are proposed an promising solution to increase agricultural productivity, food security and adaptive capacity in the face of climate variability and change. We provide detailed and gender disaggregated data on the monitoring of a set of appropriate CSA practices tested in the climate-smart villages of Olopa (Guatemala) and Santa Rita (Honduras).

- *Informing policy*

The entry point to engage policymakers and decision-makers at different levels was CAC, with which we have been collaborating since 2013. CAC facilitates the dialogue between Ministries of Agriculture and technical organizations in the region. CAC clearly understands both regional and national demands through its Technical Groups on Climate Change and Risk Management (GTCC&GIR) and Gender Units of the Ministries of Agriculture of the SICA region. The main purpose of the project was to provide research inputs than inform and support policy implementation in Central America. Along the entire project, the team was closely engaged not only with CAC but also with Ministries of Agriculture and national level stakeholders in Guatemala and Honduras. The collaboration with CAC and COMMCA offices and participation in regular update/follow up meetings contributed to increase the dialogue between those two bodies, to strengthen the agenda of CAC's Climate change and Integral Risk Management Technical Group highlighting the importance of mainstreaming a gender sensitive component in the frame of the regional CSA strategy implementation. This also led to co-develop product and respond to their demand, including the "Gender Guide", the series on capacity building Webinars on Gender and CSA and the development of a roadmap to implement the strategic "gender line"³ of the Climate Smart Agriculture Strategy for the SICA region. Policymakers and decision makers involved in the project have increased their capacities on gender and CSA through the research and engagement developed in this project. The evidence that the results from the project were addressing policymakers or decision-makers needs is that both, Guatemala and Honduras, are using project's research outputs to introduce or implement gender perspectives in their CSA and rural development initiatives and/or policies.

Some of the critical bottlenecks for engaging with and informing policymakers and decision-makers mainly come from the difference in timing on the development of policy activities (formulation or implementation) and the development of the project. The timing for developing policy outputs is longer and slower than those established for the project's implementation. Our experience and good relationship with key stakeholders was key to overcoming this challenge.

5. Project outputs

Throughout the implementation of the project, several publications were disseminated and made freely available on the CGSpace platform, a virtual repository for all CCAFS publications, ready to be consulted (Open Access) at any time. The content published on CGSpace is under a Creative Commons license, which means that the material can be shared in any format with attribution to the authors.

Book Chapter (Only one that is not open access; IDRC contributed but did not led)

- [Gender Equality and Trees on Farms: Considerations for Implementation of Climate-Smart Agriculture](#). 2019. Tatiana Gumucio, Diksha Arora, Jennifer Twyman, Ann Tickamyer, and Monica Clavijo. In: Gender, Agriculture and Agrarian Transformations Changing Relations in Africa, Latin America and Asia, 1st Edition. Edited by Carolyn E. Sachs Routledge 258 pages | 22 B/W Illus.

Datasets

Raw data, questionnaires and associated files used in the CSA Monitoring:

- * Olopa 2018: <https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/3GICDI>
- * Olopa 2020: <https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/VTPO4U>
- * Santa Rita 2018:
<https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/INK5IM>
- * Santa Rita 2020:
<https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/OSNTKT>

Economic game

- Final Report of Activity: Eitzinger A, Martinez-Salgado JD, Howland F, Bonilla-Findji O. 2020. Cultivando para Ganar - Choice Game for climate action. CGIAR Research Program on Climate Change, Agriculture, and Food Security (CCAFS). Permanent link to cite or share this item:
<https://hdl.handle.net/10568/109614>
- Landing Page and Download of Game Kit: <http://cultivandoparaganar.s3-website-us-east-1.amazonaws.com/>

InfoNote

- Acosta M, Bonilla-Findji O, Eitzinger A, Arora D, Martinez-Baron D, Bejarano G, Suchini JG. 2019. [Examining gender differences in the access to and implementation of climate-smart agricultural practices in Central America](#). CCAFS Info Note. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). ([Spanish](#))

Infographics

- Almenteros H, Sarruf Romero L, Bonilla-Findji O, Martínez-Barón D. 2019. Monitoreo de prácticas y tecnologías implementadas en el TeSAC [Olopa, Guatemala \(2017\) – Infografía](#). CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).
- Almenteros H, Sarruf Romero L, Bonilla-Findji O, Martínez-Barón D. 2019. Monitoreo de prácticas y tecnologías implementadas en el [TeSAC Santa Rita, Honduras \(2017\) – Infografía](#). CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).
- Booklet “Monitoreo de opciones de Agricultura Sostenible Adaptada al Clima (ASAC) Seguimiento a su adopción e impactos en el TeSAC de Olopa (Guatemala)

- Booklet “Monitoreo de opciones de Agricultura Sostenible Adaptada al Clima (ASAC) Seguimiento a su adopción e impactos en el TeSAC de Sanata Rita (Honduras)

Manual for Gender mainstreaming

- Acosta M, Bonilla-Findji O, Howland FC, Twyman J, Gumucio T, Martínez-Barón D, Le Coq JF. 2020. Step-by-step process to mainstream gender in climate-smart agricultural initiatives in Guatemala. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). [ENG,SP](#)
It has also been uploaded into the online library of the Ministry of Agriculture (MAGA):
<https://www.maga.gob.gt/download/guiapaso-20.pdf>
- Acosta M, Bonilla-Findji O, Howland FC, Twyman J, Gumucio T, Martinez-Baron D, Le Coq JF, Carrillo B, Duron M, Obando D. 2020. [Paso a paso para la inclusión de género en iniciativas de Agricultura Sostenible Adaptada al Clima para Honduras](#). Cali, Colombia: Programa de Investigación del CGIAR en Cambio Climático, Agricultura y Seguridad Alimentaria (CCAFS). Wageningen, Países Bajos: Programa de Investigación del CGIAR en Cambio Climático, Agricultura y Seguridad Alimentaria (CCAFS).
- Mediated Guide for extension staff (Spanish): Guía para la Inclusión de Género en Iniciativas ASAC: [Mediación para Extensionistas. Ministro de Agricultura, Ganadería y Alimentación \(MAGA\)](#). 2020

Online pages (Unique set of field based evidence on adoption and outcomes related to CSA practices and technologiess) – CSA monitoring results

- Bonilla-Findji O, Eitzinger A, Andrieu N, Bejarano G, Ortega A.V, Jarvis A. 2020. Standard Indicators results – 2018 Integrated Climate-Smart Agriculture Monitoring: Tracking adoption and perceived impacts at household level in Olopa Climate-Smart Village, Guatemala. Wageningen, Netherlands: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS): <https://geofarmer.org/tesac-olopa/archives/93e4bda7-c890-4603-aabd-807e6f85fc81>
- Bonilla-Findji O, Eitzinger A, Andrieu N, Bejarano G, Ortega A.V, Jarvis A. 2020. Standard Indicators results – 2018 Integrated Climate-Smart Agriculture Monitoring: Tracking adoption and perceived impacts at household level in Santa Rita Climate-Smart Village, Honduras. Wageningen, Netherlands: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS)
<https://geofarmer.org/tesac-santarita/archives/85d21a7a-0373-456c-88fc-3e53eda5a1b6>
- Bonilla-Findji O, Eitzinger A, Andrieu N, Bejarano G, Ortega A.V, Jarvis A. 2020. Standard Indicators results – 2018 Integrated Climate-Smart Agriculture Monitoring: Tracking adoption and perceived impacts at household level in Tuma-la- Dalia Climate-Smart Village, Nicaragua. Wageningen, Netherlands: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS)
<https://rpubs.com/g-bejarano/InicioTuma>

- Bonilla-Findji O, Eitzinger A, Andrieu N, Bejarano G, Ortega A.V, Jarvis A. 2020. Standard Indicators results – 2020 Integrated Climate-Smart Agriculture Monitoring: Tracking adoption and perceived impacts at household level in Santa Rita Climate-Smart Village, Honduras. Wageningen, Netherlands: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS)
<https://geofarmer.org/tesac-santarita/archives/c35b4e6f-470d-40a3-aad4-8034e7305d98>
- Bonilla-Findji O, Eitzinger A, Andrieu N, Bejarano G, Ortega A.V, Jarvis A. 2020. Standard Indicators results – 2020 Integrated Climate-Smart Agriculture Monitoring: Tracking adoption and perceived impacts at household level in Olopa Climate-Smart Village, Guatemala. Wageningen, Netherlands: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS)
<https://geofarmer.org/tesac-olopa/archives/01c3c922-1221-4a16-a2f3-794106cc1f8e>

Poster Presentation

- At the CGIAR gender conference Seeds of change : [“Understanding socio-economic aspects of adoption and effects of Climate- Smart Agriculture in Guatemala”](#) (April 2019- Canberra University- Australia)

Reports

- Mercado L, Ospian A, Suchini JG. 2019. [Reporte Anual Monitoreo 2018: Territorio Sostenible Adaptado al Clima de Olopa, Guatemala](#). CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).
- Martínez-Salgado J.D, Alvarez O. 2020. [Implementación del Monitoreo de opciones de Agricultura Sostenible Adaptada al Clima \(ASAC\): Seguimiento a su adopción e impactos en el TeSAC de Santa Rita, Honduras](#). - Reporte de Actividad. Wageningen, the Netherlands: Programa de Investigación del CGIAR en Cambio Climático, Agricultura y Seguridad Alimentaria (CCAFS).
- Martínez-Salgado J.D, López C.2020. [Implementación del Monitoreo de opciones de Agricultura Sostenible Adaptada al Clima \(ASAC\): Seguimiento a su adopción e impactos en el TeSAC de Olopa, Guatemala](#) –Reporte de Actividad. Wageningen, the Netherlands: Programa de Investigación del CGIAR en Cambio Climático, Agricultura y Seguridad Alimentaria (CCAFS).
- Bonilla-Findji O, Eitzinger A, Bejarano G, Ortega A. 2020. Synthesis and key insights from the implementation of the gender sensitive Climate-Smart Agriculture monitoring framework in Olopa (Guatemala) and Santa Rita (Honduras) Climate Smart Villages: temporal and spatial dynamics. CCAFS Activity report. Wageningen, the Netherlands: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).
- Chaves A, Giller O. 2020. [Enfoque de género de la Estrategia de Agricultura Sostenible Adaptada al Clima \(EASAC\) para la región del SICA: Acciones clave para la implementación de la línea estratégica de Género de la EASAC](#). CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).
- Chaves P, Giller O. 2020. [Acciones claves para el enfoque de género de la Estrategia de Agricultura Sostenible Adaptada al Clima \(EASAC\) de la región del SICA](#). Cali, Colombia: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).

6. Problems and challenges

The main challenge we faced was the political crises that came out in April 2018 Nicaragua and obliged us to abandon the work initiated in that country. Once it was confirmed that the situation was not coming to normal in the short term and CIAT asked all the staff to leave the country, in agreement with our IDRC focal point we agreed on moving the work to Honduras. This of course influenced some activities, that could then only be made in Guatemala (e.g Individual Capacities Baseline and Endline Survey; and field research on gender intrahousehold dynamics) but also the policy engagement process ... that takes time! Despite this challenge, we managed and adapted successfully to the new reality as can be evidenced by the project outputs also materialized in Honduras. We faced challenges related to staff changes in CAC Executive Secretariat, as well as the COVID-19 pandemic. We had the flexibility to adapt to CAC's dynamic and achieve the goals proposed in the project. We leveraged the robust relationship with CAC team and worked hand in hand with CAC to tailor the scope of the project to their demands. This approach allowed us to support CAC's mission and therefore, led to the expected outcome to support policy implementation with science-based outputs. Another important challenge was related to speed of the policy dynamics in the target countries. There was a strong demand for support by Ministries/Gender units but their very limited capacities (in human resources, capacities and budget) often limited the speed or potential further reach of our work (e.g further promotion and capacity building activities on the use of the Gender Manual to other national institutions). They often required more closer (face to face) follow up and economic support (even to get some print outs) from our site. E.g. Event to organize an internal workshop with their extension agents they had to look for international cooperation support. This types of challenges slow down the impact pathway towards outcomes.

A challenge encountered at local level, was the need to focus on strengthening knowledge basis in the new partner organizations before been able to move into other type of more advanced capacity building activities (e.g games etc). We made the choice to move further (to 2020) some activities and stress the first demand/need. More than 25 workshops were held in each CSV site with farming communities; partners were trained on the games methodology + assisted a post graduate seminar. The Implementation of the Game methodology initially planned for the summer 2019 had to be postponed to next year due to the tight agenda of the local partners and because we estimated more appropriate to do it right before the next sowing period in Spring 2020.

Finally, we suffered from a very negative effect of the exchange rate from Canadian to US Dollars which translated in a projected deficit of ca. 17k if compared with the initial plans, which had to be absorbed by the CCAFS program. This forced us to adjust the budget lines and activity plans. All adjustments, also impacted by the COVID lockdown are documented and justified in the annual financial and in this technical report. There were, however, not negative impact on the overall project plans.

7. Overall assessment and recommendations

Overall the relations and exchanges with IDRC all along the project were very positive and useful. We highly appreciated the flexibility in understanding and helping to find agreed solutions to the different implementation challenges we phased: Nicaragua crises than obliged us to change the project location; changes in local partners that made us adjust timelines of activities and lately the COVID situation that made impossible field work with affected some final activities planned as well as the work to be done by the MBs student in the context of her thesis.

Aspects that could be improved relate to the lack of linkage and support from IDRC communication teams which could have helped disseminating further the great outputs and advances from the project. Also some national level partners in central America are very eager to get printed materials of the project outputs to share among extension agents and staff but their own budgets are very limited. It would be interesting to explore the interest from IDRC to provide some support these demands.

Also linkages with other relevant IDRC funded project and of initiatives from the Canadian Government. When we visited the Embassy in Honduras (early 2020) we realized that if done earlier maybe synergies could have appeared.

A final challenge, but not sure how this can be better handled is the huge impact suffered by the exchange rate and the fact that budgets are made in Canadian dollars while we execute in USD. As previously mentioned this translated into a negative gap of approx. USD 17,000 that we had to cover from other sources.

List of Annexes

Annex 1. CSA Monitoring Framework indicators

Annex 2. Press Release Launch of the Gender Guide for Guatemala, Sept 2019

Annex 3. Project Activities contributions to Intermediary outcomes

Annex 4. MAGA Gender Unit Acknowledgement letter

Annex 5. CAC Acknowledgment letter