CCAFS Gender and Social Inclusion Strategy

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Abstract

The CCAFS Gender and Social Inclusion (GSI) Strategy is an update of the CCAFS 2012 Gender Strategy. The new strategy addresses gender as well as social inclusion for different social groups while bearing in mind that women are central to agriculture in developing countries. The CCAFS approach to GSI allies with the CGIAR objectives to create opportunities for women, young people and marginalized groups and to promote equitable access to resources, information and power in the agri-food system for men and women in order to close the gender gap by 2030.

Keywords

Gender, social inclusion, climate-smart agriculture, agricultural practices; adaptation technologies; food security, resilience.

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Contents

Acronyms

ACPC – African Climate Policy Centre
APAARI – Asia-Pacific Association of Agricultural Research Institutions
AR4D – Agricultural research for development
ASARECA – Association for Strengthening Agricultural Research in Eastern and Central Africa
ASEAN – Association of Southeast Asian Nations
CAADP – Comprehensive Africa Agriculture Development Programme
CAC – Central America Agricultural Council
CARE – Cooperative for Assistance and Relief Everywhere
CATIE – Centro Agronómico Tropical de Investigación y Enseñanza
CC – climate change
CCAC – Climate and Clean Air Coalition to Reduce Short-Lived Climate Pollutants
CCAFS – CGIAR Research Program on Climate Change, Agriculture and Food Security
CECOCAFEN – Central Association of Northern Coffee Cooperatives, Latin America
CIRAD – Centre de Coopération Internationale en Recherche Agronomique pour le Développement
COP – Conference of Parties
CORAF – Conseil Ouest et Centre Africain pour la Recherche et le Developpement Agricoles
CRP – CGIAR Research Program
CSA – Climate-smart agriculture
CSV – Climate-smart village
EA – East Africa
FAO – Food and Agriculture Organization of the United Nations
FEDEARROZ – Federación Nacional de Arroceros (National Federation of Rice Growers), Colombia
FENALCE – National federation of cereal growers, Colombia
FP – Flagship Program (of CCAFS)
FP1 – Flagship Program 1 (of CCAFS)
FP2 – Flagship 2 (of CCAFS)
FP3 – Flagship 3 (of CCAFS)
FP4 – Flagship 4 (of CCAFS)
FPL – Flagship Program Leader
FTE – Full time equivalent
GACSA – Global Alliance for Climate-Smart Agriculture
GRA – Global Research Alliance on Agricultural Greenhouse Gases
GSI – Gender and social inclusion
H – hypothesis
ICAR – International Committee for Animal Recording
IDO – Intermediate Development Outcome
IFAD – International Fund for Agricultural Development
IFPRI – International Food Policy Research Institute
IIASA – International Institute for Applied Systems Analysis

IIRR – International Institute of Rural Reconstruction
IPG – International public good
LAM – Latin America
LED – Low emissions development
MEL - Monitoring, Evaluation and Learning
NARES – National Agricultural Research and Extension Systems
OSAGI – Office of the Special Advisor on Gender Issues, United Nations
PMC – Program Management Committee
RPL – CCAFS Regional Program Leader
SA – South Asia
SEA – Southeast Asia
SEARCA – Southeast Asian Regional Center for Graduate Study and Research in Agriculture
SECAC – Executive Secretariat of the Central American Agricultural Council
SLO – System Level Outcomes of CGIAR
SRF – Strategic results framework of CGIAR
SSA – Sub-Saharan Africa
UNFCCC – United Nations Framework Convention on Climate Change
WA – West Africa
WFP – World Food Program
WFO - World Farmers' Organisation
WISAT – Women in Global Science and Technology

1. Introduction

The CCAFS Gender and Social Inclusion (GSI) Strategy is an update of the CCAFS 2012 Gender Strategy (Ashby et al. 2012). It was written during the planning for Phase II of the program. It builds on research and experience since the program was established in 2010, various external reviews, as well as the performance management and measurement frameworks put in place since 2011.

Context and justification

Agriculture is the largest sector for women's employment in three regions – Oceania, South Asia and sub-Saharan Africa – employing 60% of women (United Nations 2015b). In least developed countries 79% of economically active women report agriculture as their primary economic activity, while rural women play an increasing role in smallholder agriculture as a result of out-migration of males. Women make up 43% of the global agricultural labour force, although there is evidence that they are in fact involved in many facets of agricultural production that are under-reported (FAO 2011; Sugden et al. 2014; Doss 2015). Globally, women's land ownership lags behind men's: women make up roughly 15% of agricultural land holders in sub-Saharan Africa, 20% in Latin America, and 10% in South and Southeast Asia (FAO 2011). Even if they own land, they may not have control over it – men and women inherit land equally in the High Andes of Peru, but do not have equal decision-making control over it (Montenegro et al. 2015). Women have lower levels of access to and control over key agricultural resources: finance and credit; extension; and agricultural inputs (Ragasa 2012; World Bank 2012; FAO 2011).

The gender gap in agriculture exists across a range of assets and resources. Women have less access to financial capital and key resources such as water, livestock, grazing and fisheries. They have less capacity to capture beneficial environmental services; less participation in decision-making; and lower levels of access to labour, technology, training, information and agricultural advisory services. The TerrAfrica partnership found that insecure land tenure, lack of capital and limited farm inputs – all common problems for women farmers – were all major barriers to the adoption of conservation agriculture in sub-Saharan Africa (Ashby et al. 2012; Goh 2012; Huyer 2016b).

CCAFS research in the lead up to COP21 found that women and men farmers in developing countries have different vulnerabilities and capacities to deal with the impact of climate change on agriculture (Huyer et al. 2015; Gonda 2016). Women appear to be less adaptive because of financial or resource constraints and because they have less access to information and extension services. For example, in Uganda women have less access to agricultural

information as a result of cultural restrictions, which limit their mobility and prevent them taking certain forms of transportation, or because of the need to obtain approval from their husbands to attend sessions. They also have less access to information services: in Kyengeza 80% of the men listen to the radio for daily weather forecasts, compared with only 20% of women (Kyazze et al. 2012). In rural Bangladesh, lower levels of financial literacy mean women are less likely to buy micro-insurance if risk is low-probability, while men are likely to buy more units of insurance (Jost et al. 2015; Twyman et al. 2014; Tall et al. 2014; Kumar 2016).

Women are also important agents of innovation in response to climate-induced change. Engaging women and men in technology design and management encourages changes in gender relations, and improves community outcomes. In Honduras women and men redesigned eco-stoves and developed improved agroforestry management systems (Hottle 2015; Edmunds et al. 2013). Additionally, women's resilience strategies and local environmental knowledge are valuable resources for recovery and adaptation (United Nations 2015a; Lane and McNaught 2009). While generally the participation of women in agricultural sciences is increasing in most regions of the world (Huyer 2015), gender is not well-integrated into climate change policy at national or global levels (Gumucio and Rueda 2015; Huyer 2016a; Pham et al. 2015).

Rural women in particular are at high risk of negative impacts from climate change, due to household responsibilities as well as increased agricultural work from male out-migration. One of the important effects of environmental stress in farming systems (such as those imposed by climate change) is the intensification of women's workloads, while another is decreases in assets of poor households (Jost et al. 2015; Agwu and Okhimamwe 2009; Goh 2012). Climate-smart agriculture (CSA) options have the potential to provide benefits for women – when they have access to information on CSA, they are just as likely as men, if not more so, to adopt the practices. In Kenya the most rapid adoption of climate-resilient farming was among women whose husbands were away and not making the day-to-day decisions. However, the possibility of increased labour loads from CSA practices is a significant barrier for women (Twyman et al. 2014; Bernier et al. 2015; Jost et al. 2015; Goering 2015).

Little is known about how social and gender disparities actually affect the ways in which poor men and women respond to climate change impacts on agriculture (Jost et al. 2015). Climate variability and weather-related shocks affect women's and men's assets in different ways. Cultural norms can affect changes in control and ownership of assets during drought, e.g. in one case women gained increased control of the household's livestock because men sold their livestock first (Kristjanson et al. 2014). Women and men are also changing cropping practices

in response to climate variability, with different impacts on control of the income from crops and on workloads (Jost et al. 2015; Nelson and Stathers 2009).

These and other studies suggest that more female – as well as male – farmers adopt climate-smart technologies and practices in agriculture when women's awareness, knowledge, and access to information about such practices increases (Kristjanson et al. 2015); and that the resilience of households, communities, and food systems are increased as a result (World Bank, FAO, IFAD 2015). On the other hand, if women are not able to use and benefit from CSA, the gender gap in agriculture is likely to increase, both as a result of inability to manage changes in farming systems that are likely to occur in the face of climate change, and in terms of increased exposure to disasters, shocks and reduced incomes and assets.

2. Gender and Social Inclusion (GSI) Strategy

The overall purpose of CCAFS is to marshal the science and expertise of CGIAR and partners to catalyse positive change towards CSA, food systems and landscapes. The main goal of CCAFS' GSI Strategy is to promote gender equality in supporting CCAFS' work towards CSA, food systems and landscapes. The CCAFS approach to GSI allies with the CGIAR objectives to create opportunities for women, young people and marginalized groups and to promote equitable access to resources, information and power in the agri-food system for men and women in order to close the gender gap by 2030 (CGIAR 2015). In support of this goal, CCAFS will undertake research that can inform, catalyse and target CSA solutions to women and other vulnerable groups, increase the control of disadvantaged groups over productive assets and resources (e.g. climate information, novel climate finance), and increase participation in decision-making (e.g. in local and national climate adaptation strategies). The GSI Strategy focuses on women as central to agriculture in developing countries within a broader social context. This focus is appropriate since gender equality is a key leverage point for change given women's important roles in agricultural production, food security, nutrition and livelihoods. Addressing gender equality will open spaces for addressing other social inequalities.

As defined by the United Nations, gender equality refers to the equal rights, responsibilities and opportunities of women and men and girls and boys. Gender equality is seen as not only a fundamental aspect of human rights and social justice, but also a precondition to improve the development process by putting social concerns at the centre (OSAGI 2001). It is characterized by equal participation of women and men in decision-making, equal ability to exercise their human rights, equal access to and control of resources and the benefits of development, and equal opportunities in employment and in all other aspects of their

livelihoods (FAO and CCAFS 2013). Gender equity, the allocation of resources, programs, and decision-making fairly to both men and women without any discrimination on the basis of sex, is a stepping stone to achieving equality, while equality is only achieved when women and men can exercise control, agency, and decision-making in taking advantage of these opportunities. Equity and equality both need to be considered in designing CSA interventions. For example, increasing women's access to productive resources supports gender equity, while women gaining equal control with men, or control of the productive resources they need and use, is gender equality.

Social inclusion involves gender, socioeconomic status, ethnicity, disability and age (youth and seniors) and affects dynamics around perspectives, needs and access to resources (FAO and CCAFS 2013). The World Bank defines social inclusion as improving the ability, opportunity and dignity of people disadvantaged on the basis of their identity to take part in society. This is achieved through increasing opportunities, voice and decision-making as well as equal access to assets and services and to social, political and physical spaces (World Bank 2013).

An important element is challenging power relations at all levels. Scientific information and agricultural assets are set within contexts of power relationships, so that existing gender norms and power inequalities will influence climate change impacts and adaptations (Rossi and Lambrou 2008). Power relationships are expressed through a range of structures: judicial, economic, social and political so that overcoming power imbalances involves promoting greater equality in control over resources (physical, human, intellectual, intangible); ideology (beliefs, values, attitudes) and changes in institutions and structures (Rao and Kelleher 2005). Ethnic, gender, and seniority hierarchies were found to influence the processing of climate information among different groups in Uganda. The ability of certain actors (i.e. commercial operators) to access and interpret raw climate and weather information can give them an advantage over small-scale independent fishermen while media groups may exaggerate the risks posed by weather events (Roncoli 2006). Climate change interventions can reproduce existing male-dominated power structures at both local and national levels if patterns of power are not taken into account (Boyd 2002).

Culture, norms and transformation

To challenge and transform power structures and inequitable social relations at all levels means also examining sociocultural – including gender – norms as well as the "culture" in which these norms exist. Culture in this sense refers to a society's or social group's material, intellectual, emotional, and spiritual institutions including values, beliefs, and traditions (Schalkwyk 2000). Culture is fluid, changing over time with other shifts, influences, and impacts (e.g. political, environment and climate, socioeconomic, etc.). For example, rural

communities impacted by male out-migration may experience changes in "culture" or shifts in norms where women and even children and elders may take on roles and responsibilities previously held by men (Martinez-Iglesias 2015; de Villard and Dey de Pryck 2010).

While culture is not invariable, it may be used as an argument against challenging inequitable gender norms and relations or powerful institutions that lead to and enforce disparities in the way men and women engage in and benefit from opportunities (Bryan et al. 2016). Further, at many levels, women are often not perceived as farmers or producers – a factor that is reinforced by the social norms of community leaders, extension workers, government and non-government staff, researchers and even household members themselves (Twyman et al. 2015).

Twyman et al. (2015) argue that gender norms restrict an understanding of women's roles in agriculture and that transformations in knowledge and understandings of gender are needed at various scales to move beyond these restrictions (e.g. from households to community groups and service organizations to national and international research and governing bodies). This calls for engagement and capacity strengthening on gender transformative approaches in households, communities, and among staff and partners and promotion of women's voice and decision-making. Addressing gender norms and supporting gender equality should be based in an analysis of the specific, historical, and social contexts of women's lives which are also affected by race, age, class and culture (Cole et al. 2014; Phillips 2010; Parpart and Marchand 1995).

Methodologies and approach

Achieving these goals requires making women's, men's and youth concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of both policies and programs in all political, economic and societal spheres (OSAGI 2001; Van Eerdewijk and Davids 2014). CCAFS gender and social inclusion activities will promote this at the household, community, national and global levels.

Gender and social inclusion approaches to CSA, food systems and landscapes will follow three main approaches: vulnerabilities; gender transformation; and strengthening institutions. **Vulnerability** to climate change is determined by geographical, social, class, economic, ecological, and political factors. In agricultural adaptation, it relates to access and control of resources to adapt to shocks and stresses and become food secure (Ericksen and O'Brien 2007; Sugden et al. 2014). Gender affects the risks to which individuals are exposed as well as their access to and control of resources, finance, land, technology and services (Bryan and Behrman 2013; FAO 2011; Quisumbing and Pandolfelli 2010). The vulnerability approach outlined by Ulrichs et al. (2015) assesses the occurrence and consequences of climate impacts on local livelihood strategies and food systems with limited resources. Its goal is to support

local people to understand how climate change may affect them, what kind of coping strategies are already in place and how their adaptive capacity can be enhanced through measures tailored to local circumstances. The root causes and drivers of vulnerability can be socioeconomic, environmental, political, ethnic or gendered and will often require a combination of qualitative and quantitative approaches and measurements (Ulrichs et al. 2015; World Bank 2013).

Gender and Social Inclusion research and support to CCAFS will be centred on an analysis of gender roles, and relations. Gender analysis is critical to achieving increased production, improved outcomes for poverty alleviation, increased well-being, and a fairer distribution of burdens and benefits in agriculture among women and men (Ashby et al. 2012). CCAFS gender analysis and research will be undertaken with the goal of promoting **gender transformation**, that is, transforming gender roles and relations between women and men, and promoting women's greater equality, responsibilities, status, and access to and control over resources, services and decision-making. This approach is placed in an analysis of power relationships, and sociocultural norms within a household or community (Cole et al. 2014; Derbyshire et al. 2015).

While women-targeted or gender-focused activities are critical for transformation, gender equality cannot be realized solely through separation from other social, political and economic institutions. Gender transformation also involves the transformation of roles and benefits for men and youth. Social values and policy-making institutions and processes at macro, meso and micro levels need to be transformed in order to challenge the underlying political, economic and sociocultural causes of gender inequality (Cole et al. 2014; Derbyshire et al. 2015).

Strengthening Institutions. Lipper et al. (2014) identify the strengthening of local and national institutions as one of the pillars for large-scale adoption of climate-smart practices, services and institutions that promote gender equality goals. Vermeulen (2015) argues that the scale of climate change necessitates social and institutional over and above individual responses, so that in effect institutions are at the heart of CSA. Local institutions can increase agency among those with the strongest local knowledge who may be marginalized from formal policy processes, and in fact tend to be preferred by women as a source of information and support (Cramer et al. 2016; Perez et al. 2015). Institutions relevant to CSA range widely; their activities range from very specific technical support (e.g. access to heat-tolerant crop varieties) to supporting a broader set of generic capacities such as social protection. Evidence from Brazil, Mexico and USA suggests that investing in one rather than both will not effectively support men and women's resilience to climate change (Eakin et al. 2014).

Relevant institutions and processes include: collective action around land and water management, multi-stakeholder local and national planning, risk-management and crisis-response, social protection programs, and access to inputs and markets that enable adoption of new practices (Lipper et al. 2014).

Attention needs to be given to how institutions deliver decision-making power and benefit-sharing, and which types of institutions (local versus national; food production oriented vs nutrition and health) are accessible and preferred by women and men. Other gender and social inclusion dimensions include the role of women in leadership and decision-making in local and national institutions working in areas related to climate-smart agriculture (Vermeulen 2015; Bernier et al. 2015).

Program of action

GSI will undertake strategic and integrated research. In all research, beneficiary population numbers will be sex-disaggregated and impact analysis will assess benefits to men and women, both within households and as heads of households (Deere et al. 2012; Doss and Kieran 2013).

GSI **strategic research** is cross-cutting across CCAFS Flagship Programs (FPs) and relevant to climate dimensions in all CGIAR Research Programs (CRPs). It uses qualitative and quantitative methods in six categories mapped against the CCAFS Theory of Change (ToC) (see Figure 1): (1) Analysis of data in the Gender Household Survey conducted in Climate-Smart Villages (CSVs), to provide a baseline for the gender and youth sub-Intermediate Development Outcomes (sub-IDOs) (CCAFS et al. 2013), and updated in 2017 in six CCAFS sites across 4 countries – Kenya, Uganda, Senegal and Bangladesh." (2) Analysis of household decision-making methodologies in adaptation and mitigation. Studies in three countries in EA (to be expanded to LAM and WA) will include baseline analyses, surveys of existing research, testing of technologies and practices, and measuring behavioural change. (3) Enabling mechanisms, tools and frameworks for gender in CSA, along with strategies for scaling up and measurement frameworks will be tested in CSVs in all five regions (LAM, WA, EA, SA, SEA). (4) The potential for climate finance instruments to support women's adaptation and mitigation-based enterprises will test the W+ standard with a pilot in Nepal; the CARE CSA/SuPER framework in EA and WA; and others. (5) Global and national climate policy research will investigate the extent to which women and gender are integrated. Research will include analysis of GSI in national and global climate policy. Work with Women in Global Science and Technology (WISAT) will develop statistical and policy analysis in 21 CCAFS target countries. (6) Value chain research will assess women's engagement in supply chains, access to technical information, and barriers to participation with a focus on dairy, tree crops and agroforestry, coffee, cocoa and rice.

GSI **integrated research** in all CCAFS projects (except those that are purely biophysical) will assess and synthesize gender research as well as support new research. Mechanisms include: (1) CSA gender focal points at each Centre; (2) gender analysis in design, implementation and ex post impact assessment; gender indicators, outputs and outcomes; (3) GSI integration into conceptual frameworks, research guides and workplans; (4) allocating resources explicitly to support Flagship research and activities. Strategic Partners will provide additional expertise as needed. Outputs include a gender and CSA impact assessment framework; GSI scaling up methodologies; gender and household decision-making methodology for CSA; gender-responsive climate finance instruments.

CCAFS will also undertake gender impact assessments in a more systematic manner for all programs, as part of reporting on gender impacts, indicators and outcomes (Report to CCAFS Independent Science Panel, October 2015). Reviews in 2013 and 2015 indicated that progress in developing tools and products for women farmers has been slower than targeted. CCAFS will continue to measure this through the proposed Phase II FP1 indicator on "Number of site specific targeted CSA technologies/ portfolios tested, with all options examined for their gender implications" (see Table 1).

Both integrative and strategic research will be communicated to researchers, advocacy groups and policy makers through policy briefs summarizing key findings and recommendations; toolkits; info briefs; and working papers. CCAFS' work will be disseminated through the GSI website, contributions to international publications, presentations and panels. Outputs include a gender and CSA impact assessment framework; integration of gender into scaling up methodologies; gender and household decision-making methodology for CSA; and gender-responsive climate finance instruments. CCAFS GSI collaborates with partners on inputs into global policy processes.

3. Theory of Change for delivering gender outcomes

The GSI ToC (Figure 1) posits that the selected Intermediate Development Outcomes (IDOs) will be achieved through large-scale, equitable adoption of climate-smart practices, services and institutions, within the context of agricultural development pathways that prioritize resilience building and, where appropriate, low emissions. Partnerships are seen as crucial to the "How" of the ToC, with at least four key areas for partnerships: (1) Working with partners, especially implementing partners and local organizations, to build field-based evidence. (2) Working with partners, particularly the large agencies driving implementation, to understand what works for investment and scaling. (3) Working with partners to understand

how information strengthens institutions and services. (4) Working with partners, particularly policy partners, to understand what works for policy and governance. Some of the key partners for CCAFS are shown in Figure 1. We will need to work with all these partners to understand the gender and social inclusion dimensions, so that all partners are helping to facilitate the gender outcomes. In addition, there are a number of specific partners that will play a role in advancing the GSI strategy (see below).

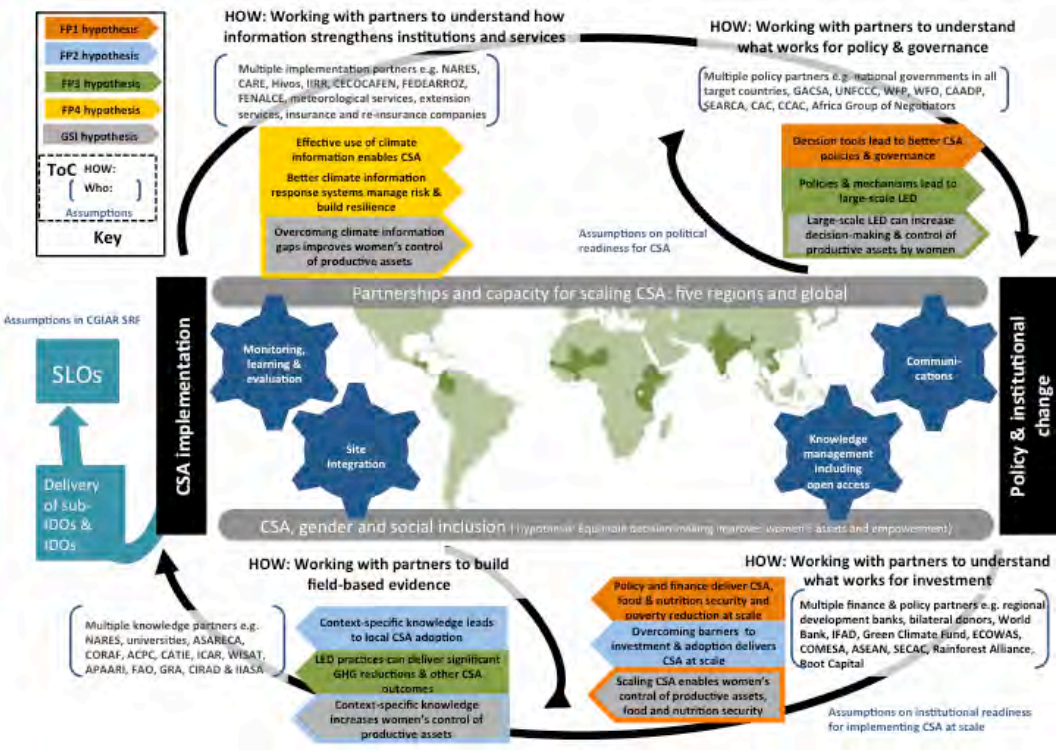

Figure 1. CCAFS-GSI Theory of Change

The "How" also involves the way CCAFS should operate. CCAFS has used internal learning to develop 10 principles about how CRP behaviours can enhance the likelihood and quality of outcomes (Vermeulen and Campbell 2015). One of these is "Tackle power and influence", which is highly relevant to the GSI strategy. We propose that an effective AR4D program actively addresses gender and other power differences within deliberative approaches in which the CRP participates. One important aspect of this approach is recognition of the power and influence of the AR4D program itself. In most cases science is only one among many influences on policy and action, and scientific inputs are not given privilege on account of being more "objective" or "factual".

Our ToC for how large-scale CSA adoption might occur builds on the theory presented by Lipper et al. (2014) for CSA, which proposes four areas for action: (1) building evidence; (2) coordinating climate and agricultural policies; (3) stable, strategic financing; and (4)

developing capacity of institutions and services. The GSI strategy integrates gender into the four areas identified by Lipper et al. (2014) for large-scale, equitable adoption of climate-smart practices, services and institutions (Table 2 maps GSI research against these four areas). They are: (1) *Implementing a program of integrative and strategic research to "build evidence" that is informed by gender research*. CCAFS gender research with FPs and partners will build a field-based evidence base to inform, catalyse and target context-specific CSA solutions that target women and other social groups and facilitate scaled adoption of CSA practices. (2) *Ensuring that gender and women's empowerment are dealt with in coordinated climate and agricultural policy*, CCAFS will work multiple global and national policy partners for policies and programs to improve FNS and enable large-scale low emissions development (LED). (3) *Building mechanisms to engender finance* will involve engendering finance tools to overcome barriers to adoption and investment in CSA technologies by and for women and catalyse the increase of targeted investments in CSA technologies across scales. (4) *Enhancing the capacity of local institutions and services to close the gender gap includes* promoting the use of climate services to enable increased adoption of CSA by women. All of these activities will contribute to the scaling of CSA which increases women's access to, and control over, productive assets and resources.[1] The CRP collaborates with partners on inputs into global policy processes.

Each FP has identified gender indicators for one gender sub-IDO and at least one other sub-IDO. CCAFS focuses on two gender sub-IDOs (control of productive assets and participation in decision-making), taking into account effects on women's workloads. Of the 12 CCAFS sub-IDOs, six have outcome targets that include a gender dimension (Table 1). The 2022 target for CCAFS is to bring benefits to at least 11 million women and assist 4.5 million women out of poverty (based on Targets implicit in CCAFS Strategic Level Outcomes), providing 8 million farm households with *improved access to financial and other services* (FP4). Research on GSI dimensions of CSA will influence organizations and institutions to direct investment to *optimize consumption of diverse nutrient-rich foods* and enhance *gender-equitable control of productive assets* (sub-IDOs in italics). It will also involve identifying gender-sensitive CSA options for scaling out (e.g. by examining all technologies and practices for their gender implications in *improved forecasting of impacts of climate change and targeted technology development)* (FP1); identifying trade-offs among food security, adaptation, and mitigation for men and women; and working towards *gender-equitable control*. FP2 will track how organizations adapt their plans and direct investment to increase women's access to, and control over, productive assets and resources. Research and Monitoring, Evaluation and Learning (MEL) systems ensuring women farmers will benefit from LED options will contribute to *reduced net GHG emissions*.

[1]CCAFS developed five regional gender impact pathways in 2013, which are now integrated into the ToC.

Table 1. CCAFS sub-IDOs with gender dimensions

IDOs and sub-IDOs	Outcome	FPs			
		1	2	3	4
IDO: Enhanced smallholder market access					X
Sub-IDO: Improved access to financial and other services	8 million farm households with improved access to capital, with increased benefits for women.				X
IDO: Improved diets for poor and vulnerable people		X			
Sub-IDO: Optimized consumption of diverse nutrient-rich foods	14 organizations and institutions in selected countries/states adapting plans and directing investment to optimize consumption of diverse nutrient-rich foods, with all plans and investments examined for their gender implications.	X			
IDO: Mitigation and adaptation achieved		X		X	
Sub-IDO: Improved forecasting of impacts of climate change and targeted technology development	50 site-specific targeted CSA technologies/ practices tested, with all options examined for their gender implications.	X			
Sub-IDO: Reduced net GHG emissions from agriculture, forests and other forms of land use	10 low emissions plans developed that lead to significant mitigation by 2030, i.e. will contribute to at least 5% GHG reduction or reach at least 10,000 farmers, with all plans examined for their gender implications.			X	
IDO: Equity and inclusion achieved		X	X	X	X
Sub-IDO: Gender-equitable control of productive assets and resources	55 organizations adapting their plans and directing investment to increase women's access to, and control over, productive assets and resources (FP1: 20 national/state organizations; FP2: 15 development organizations, with the focus on investments for CSA activities; FP4: 20 development organizations, with a focus on investments in climate services and safety nets).	X	X		X
Sub-IDO: Participation in decision-making	15 organizations adapting their plans or directing investment to increase women's participation in decision-making about LED in agriculture.			X	

Hypotheses for achieving the IDOs

Five hypotheses (H) are proposed in relation to the ToC. H1 – H4 are each aligned with one of the Flagship Programs, while H5 is cross-cutting CCAFS. Table 2 indicates planned Flagship gender research to help to produce the outcomes outlined in the hypotheses. They are:

H1: Improved policies and programs, and increased investments will influence national/ state organizations and institutions to adapt their plans and direct investment to increase women's access to, and control over, productive assets and resources, as well as enhance food and nutrition security. *H2:* Context-specific knowledge on the GSI impacts of practices, technologies and information systems on CSA lead to investment and scaled adoption of CSA practices which increase women's control of productive assets at the local level and are scalable. *H3:* Improved evidence, incentives, technical capacity, and social mobilization for

low emissions development (LED) will support governments, the private sector and donors to implement LED policies and programs at large scales that will increase women's participation in decision-making; *H4:* Overcoming key gaps in climate information, knowledge and methods to effectively target and implement climate-informed services and interventions, and evidence of their benefits, leads to more effective use of climate information by women farmers and gender-equitable control of productive assets. *H5* Promoting equitable decision-making in the household will lead to women's increased control of productive resources and increased empowerment. All these hypotheses will be examined in the course of the research, through MEL; qualitative research that examines processes, outcomes and stakeholder perceptions; and external evaluation.

Table 2. GSI research and the ToC

GSI Research and Partnerships on the model of Lipper et al. 2014	
(1) Implementing a program of integrative and strategic research to "build evidence" that is informed by gender research;	Analysis of data in the Gender Household Survey conducted in CSVs, to provide a baseline for the gender and youth sub-IDOs (CCAFS et al. 2013), and updated in 2017 in six CCAFS sites across 4 countries – Kenya, Uganda, Senegal and Bangladesh. Enabling mechanisms, tools and frameworks for gender in CSA, along with strategies for scaling up and measurement frameworks will be tested in CSVs in all five regions.
(2) Ensuring that gender and women's empowerment are dealt with in coordinated climate and agricultural policy;	Global and national climate policy research will investigate the extent to which women and gender are integrated. Research will include analysis of GSI in UNFCCC policy and the INDCs. Work with WISAT will develop statistical and policy analysis in 21 countries.
(3) Building mechanisms to engender finance;	The potential for climate finance instruments to support women's adaptation and mitigation-based enterprises will test the W+ standard with a pilot in Nepal and the CARE CSA/SuPER framework in EA, WA and others.
(4) Enhancing the capacity of local institutions and services to close the gender gap.	Enabling mechanisms, tools and frameworks for gender in CSA, along with strategies for scaling up and measurement frameworks will be tested in CSVs in all five regions.

4. Organization and Management

Flagship Program Leaders (FPLs) and Regional Program Leaders (RPLs) take responsibility for ensuring that gender is integrated into Flagship and regional research and activities. Gender specialists are located in Centres. They generally work across FPs and often across CRPs. A Gender and Social Inclusion Research Leader and Program Manager coordinate GSI work and provide inputs to the RPLs and FPLs on design, implementation and monitoring. The GSI Research Leader will ensure that gender and social inclusion are mainstreamed, and facilitate the delivery of gender-related international public goods (IPGs).

The current gender capacity across CCAFS is approximately 21 FTE. CCAFS is coordinating a system-wide Learning Platform on "CSA, gender and social inclusion" across all CRPs,

including a Gender and climate change (CC) researchers network. This will promote collaborative research and programs; sharing of methods, tools, and approaches; and exchange of experience on project design, proposal writing, and implementation. Members have close links with other CRPs and so will be key nodes for building connections between CCAFS and other CRPs. CCAFS will actively participate in and liaise with the CGIAR Gender and Agriculture Platform. CCAFS management and governance bodies are updated regularly on gender research through membership of the GSI Leader on the Program Management Committee (PMC); major seminars presenting gender research; periodic gender reviews and other activities.

The CCAFS Director takes overall responsibility for the updating and implementation of the Gender and Social Inclusion Strategy. CCAFS management and governance bodies are updated regularly on gender research through membership of the GSI Leader on the PMC; major seminars presenting gender research; periodic gender reviews and other activities.
In the 2012 Gender Strategy the percentage of program funds going to gender-focused activities was estimated at 7% in 2012, with a goal of 15% over the total CCAFS budget set for 2015. The goal for Phase II is 17%. Through results-based management, the degree to which serious gender research is embraced will feed back to budget adjustments.

5. Enabling environment for women scientists

CCAFS supports women's active participation in research, capacity building, policy engagement activities and events at local, national, regional and international levels. It will increase access of women scientists to research and training opportunities, as proposed by FP3, LED. It has a policy of recruitment and leadership development of women scientists working in FPs. Currently 2 of 6 members of the PMC are women (this will shift to 3 out of 7 in Phase II), while 1 of 4 FPLs and 2 of 5 RPLs are female.

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