



**Situational Analysis and Gender and Social Inclusion Strategy:
Towards the making of gender and youth smart climate
innovations in Ghana.**

December 2022



AICCRA
Accelerating Impacts of CGIAR
Climate Research for Africa



Authors

¹Faustina Obeng Adomaa, ²Osman Tahidu Damba, ³Stephen Yeboah, ¹Mustapha Alasan Dalaa, ⁴Sophia Huyer, ⁵Ghislain Tapa Yotto

¹International Institute of Tropical Agriculture (IITA), Accra, Ghana.

²Faculty of Agriculture, Food and Consumer Sciences, University for Development Studies (UDS), Tamale, Ghana.

³The Council for Scientific and Industrial Research-Crops Research Institute (CSIR-CRI), Kumasi, Ghana.

⁴International Livestock Research Institute, Nairobi, Kenya.

⁵International Institute of Tropical Agriculture (IITA), Cotonou, Benin.

Correct citation to this document

Obeng Adomaa et al., (2022). Situational Analysis and Gender and Social Inclusion Strategy: Towards the making of gender and youth smart innovations in Ghana. Accelerating Impacts of CGIAR Climate Research for Africa (AICCRA) Working paper.

Abstract

Stresses to climate change and variability contribute to yield reduction in Ghana and require that farmers build their adaptive capacities for climate resilience. Situational analysis conducted by the Accelerating Impacts of CGIAR Climate Research for Africa (AICCRA) project in Ghana reveals that men, women and youth have different access to land, labour, capital, and extension services among others. These influence their differential adaptive capacities to climate stresses. Women have less access to land compared to men. Their holdings are smaller and less secured. Women and youth expend their labour on men's farms and have little access to their own labour and other household labour for their farm activities. Women's access to capital for farm investment such as land preparation, purchase of improved seeds and pesticides, and hiring of labour is also limited. They rely mainly on informal loans compared to men who rely on crop income and sometimes sale of livestock. Although women's participation in Farmer-based Organizations (FBOs) enhances their access to extension services, only few participate in FBOs and even less in FBO leadership. These gender and generational differences in resource access and use are rooted in cultural norms that govern relationships in communities. AICCRA Ghana employs a strategy for gender and social inclusion that hinges on two pillars; capacitation to enhance access to bundled CSA-CIS-One-health innovations and capital for women and youth, and dialogues with FBOs, communities and partners/collaborators to transform norms that entrench inequalities.

Introduction and background

In Ghana, stresses from climate variability and change are leading to 25-50% yield reduction (Adu-Boahen, Dadson & Halidu, 2019) and sometimes total crop failure for many farmers. These stresses from climate-related uncertainties are coupled with current production practices that rely on heavy doses of synthetic pesticides that pose health risks to humans, water, animals and plants, and threaten biodiversity. Providing secure and safe food in Ghana requires urgent effort to use production practices and technologies that are climate-smart and one-health¹ sensitive to reduce health risks of current production practices. While this is of strategic importance to end-users, especially smallholder farmers, the bundled climate smart agriculture (CSA) practices, one-health technologies, and associated climate information services (CIS) are not adequately available to many smallholder farmers. Many farmers lack the capacity to access, prioritize, bundle and use CSA-CIS and One-health technologies appropriately for their crops and geographical areas. Women and youth are particularly constrained due to gender and generational norms that create inequalities in productive resource allocation and use (Quisumbing et al., 2014). Reaching farmers with CSA-CIS and One-health technologies/innovations to enhance food security and safety therefore, requires an accelerated approach to promote and disseminate these technologies while mainstreaming gender and social inclusion (GSI) in the identification and prioritization of the technologies and their dissemination. Opening strategic opportunities to target the needs of women and youth with knowledge products, dissemination strategies and financing mechanisms is an imperative.

Working towards gender and social inclusion requires in-depth understanding of gender and generational gaps in intervention communities, and how they influence the adaptive capacities of different groups of people in specific crop value chains. Varied capacity needs of women have impacted negatively on CSA-CIS uptake and utilization including access to productive resources (Abdul-Razak & Kruse 2017; Alhassan et al., 2018; Adzawla et al., 2019). AICCRA-Ghana therefore conducted situational analysis to understand these gaps and to inform our strategy to addressing gender and social inclusion. We triangulated data from multiple sources in our situational analysis. We reviewed literature on gender and youth participation in agriculture in Ghana. We particularly focused on the Gender CSA profile for Ghana which provides a synthesis of gaps and inequalities in agriculture resource access in Ghana. We also used our environmental and social screening exercise in intervention communities to gather insights on the situation of different categories of people. We then conducted a tailored qualitative needs assessment in seven of the intervention communities through focus group discussions (FGDs) with men, women and youth. We paid particular attention to their peculiar challenges and to identify context appropriate opportunities to mainstream and customise AICCRA products to their needs. We also draw on data from our baseline survey that collected sex disaggregated data on resource access, use and ownership, and access to CSA and CIS in intervention communities. In this document, we present insights from our situational analysis. We then present AICCRA Ghana's strategy for addressing gender and social inclusion in our intervention.

Gender and generational gaps in resource access and use

It is common knowledge that there exist gender and generational difference in productive resource access and opportunities which create productivity gaps among men, women and youth (See Quisumbing et al., 2014; Huyer, 2016). In Ghana, access to land, labour, credit and extension which are critical for agriculture remains less for women and contribute to a yield gap of about 20-30% between women's and men's farms (SEND Ghana, 2014).

In our intervention communities as well, insights from our situational analysis showed that men's farm were relatively more productive than women's farm and differences in access to land, labour, capital, extension services among other things are key contributory factors. These differences in resource access result in different climate change adaptive capacities for men and women (Huyer 2020; Huyer and Partey, 2020). Below, we highlight the gender and generational inequalities that exist in access to these resources in our intervention communities.

Land

In rural Ghana, land is a primary resource for farming. Yet, one of the biggest constraints women in Ghana face is access to agriculture land (CCAFS). About 80% of land is managed under customary governance systems which prioritises men's ownership and control over land and discriminates against women (Higgins & Fenrich, 2011). As result, many women do not have access to land, and the few that do, have less secured access compared to men. Only about 30% of women farmers in Ghana own land and only about 10% have secured access to their lands (CCAFS, 2021). The value of their holdings are three times less than their male counterparts (ibid). The

¹ One-Health is a multisectoral approach to innovations that recognizes the intersection between people, animals, plants, and their shared environment with the goal of achieve optimal health outcomes.

few women who are able to access land through the land market (leaseholds and rents) do so through men in their households who front negotiations for them. For many others, they completely depend on male family relations to have secondary access to land.

Results from the baseline study (Figure 1) showed that males dominate in all forms of land ownership ranging from temporary offer, sharecropping, outright ownership, family owned as well as communal owned lands. In our intervention communities in the northern part of the country for instance, women mainly access land through marriage. Their fathers-in-law give them a portion of family land to cultivate crops. However, women's land access through marriage depends on how much land is available in the family. In cases where the family has less land, women do not get separate land to cultivate their own crops; they are only integrated into household farming. Some of them however, are able to intercrop the household farm with crops that are deemed as women's crops (cowpea and groundnut mainly) and appropriate for intercropping. In instances where land is relatively abundant, women access is also impeded by their inability to clear more lands for crop cultivation. In Yiziegu for instance, farmers indicated the availability of lands for farming. However, many women did not have plots for crop cultivation and the main challenge was their inability to afford tractor services to plough. They therefore mainly intercropped legumes in the household yam farms, and in a few instances, had access to small fallow plots. Family lands were mainly passed down to young men and thus, when land is available, young men had a relatively better access to land if they also had money to plough the land.

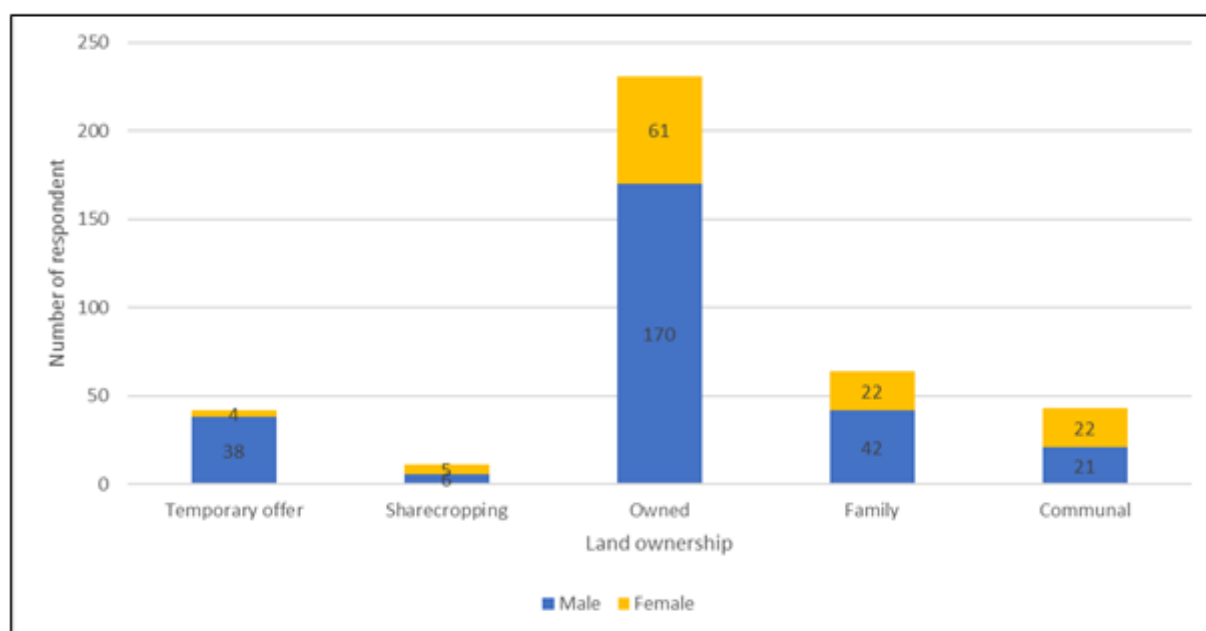


Figure 1: Land ownership distribution among households represented by males versus females across the 6 regions

Source: AICCRA-Ghana Cluster Baseline Survey Data, (2022).

In our intervention communities in the southern part of the country, women access land mainly through the maternal lineage and or through rent. Although these relatively enhance women's land access, the sizes of land they can access is impeded by norms and customs and their available capital. Even in the maternal lineage, men are prioritised because customs stipulate that they are the main actors who can put land to productive use while women are secondary actors. This norm means that even when land is available, women can access smaller portions compared to men. When land access is mainly through rental, women are not able to mobilise enough capital to access relatively larger portions of land. In the Bono East region for instance, where land for maize and yam cultivation is usually rented-in, women had little resource to rent more lands and even less to plough their entire plots after rent.

When land is further characterised as prime (fertile and or irrigable), women's access to these lands are further impeded. In the vegetable value chain where access to irrigation land is crucial, women confront more obstacles. In Tampola for instance, large portions of irrigation lands are in the hands of clans and women usually do not meet the customary requirements to access such lands. In addition to the customary norm that does not regard women as primary economic actors to warrant accessing irrigable land, women do not also have the resource to pay for the tokens (GHC 200 – 1000 per year) for land use

and to buy their own pumping machines to draw water from the dam. In government or company-led irrigable lands as well, women do not always have the financial resources to access irrigation lands which range from GHC 400 – per acre.

Land at these sites is already limited and access is usually passed on to kinsmen who are men. In Tuba irrigation site where there is a deliberate effort to pass plots of deceased men to their widows, the sizes of plots that these women hold usually reduces by the year as they are not able to pay the full costs of user fees. At the Yidongo irrigation site as well, there is a deliberate effort to integrate more women into land use at the site. Thus, there are more women at the irrigation site than men. However, their plots are woefully smaller than the plots of men. Women constitute a majority of the farmers at the site, yet, they use less than 30% of the total land at the site. Labour and capital challenges constrain their ability to access bigger irrigation plots.

Overall, land access in our intervention communities was mediated by an intersection of factors including sex, age, migration status and marital status. Men had more access to land than women, older people had more access to land than the youth, indigenes had more access to land than migrants and married women had more access to land than unmarried women. Thus, in our intervention communities, those with the least access to land were female youth who were migrants and unmarried. This was particularly evident in the Northern, Bono East and Central regions. In these communities, average land sizes for migrant young unmarried women were 0.5 acres compared to 4 acres for their male counterparts and 3 acres and 6 acres for migrant older and indigenous older women respectively.

Labour

Household farming is common in rural Ghana and labour requirements in the farm is considered as a conjugal obligation (Torvikey et al. Forthcoming). In our intervention communities, there exist gender division of labour in both the productive and reproductive spheres. Young men and all women are crucial household labour for the older men's farms which is considered as the 'household farm'. Young men are generally involved in land preparation, planting and harvesting while women, both young and old, are mainly involved in planting, weeding, fetching water for pesticide application and harvesting. Women indicated that while it is generally considered that they do the less labour-intensive activities in the farm, their roles are more time-intensive, very menial, rudimentary and painstakingly slow to complete. Women in Tampola for instance described the drudgery involved in uprooting weeds from tomato farms with their hands while those on Yidongo described the drudgery involved in weeding with small hoes. They highlighted that although their societies consider these as easy tasks to perform, it takes them weeks to complete one cycle of weeding.

Women in other intervention communities also indicated that weeding and transplanting seedlings are the most difficult farm activity for them with associated health implications from bending for such long periods of time. In some of our intervention communities especially in the Northern, Upper East, Upper West and Bono East regions, women mobilise themselves to help one another to perform 'women's activities' especially sowing and harvesting. They do this for both household farms and women's own farms. In Yidongo, these self-help groups for labour activities were the main source of farm labour for farming followed by household labour. As an extension to women's reproductive roles, they cook for self-help groups and sometimes hired labourers who work in the farm.

While the role of women and youth in men's/household farms are considered obligatory, men do not necessarily expend part of their labour in women's and youth's farms. Men are mostly in charge of land preparation and this is increasingly being done with tractor services. Thus, tractors are replacing what in the past, some men did for women's plots and the cost of these tractor services is increasingly borne by women themselves. In instances where land preparation is conducted by hand, both men and women increasingly use hired labour (young men) and women pay for this labour as well. Men help women with spraying pesticides. However, they do this when they have finished spraying their own farms. To prevent delays in pesticide application for women's farmers therefore, many women hire labour for pesticide application and pay for this service by themselves. Not only do women have less access to other household labour, they also have less access to their own labour to expend in their farms. Thus, overall, they use more hired labour than men and male youth which increases their production cost and reduces their net income.

Women's roles in the productive sphere are coupled with reproductive roles such as cooking, washing, fetching water, and firewood as well as taking care of children and the aged in the households. For many women, their reproductive roles in households are mainly hidden, taken for granted, and thus less acknowledged (CCAFS, 2021). Women for instance spend more time in collecting firewood and water than men (GSS 2014). Although domestic chores contribute to women's time poverty, it is largely overlooked

in many rural communities. In our intervention communities, women are solely responsible for household chores. In spite of the labour and time-intensity of these chores, men rarely help with such activities. The socially ascribed role for men to provide the household with food and income prescribe that men spend their time and labour in productive activities than reproductive activities. Thus, in all intervention communities, men's engagement in household chores is deemed as culturally inappropriate. The productive and reproductive role of women therefore contributed to their time poverty.

Capital

Access to capital has been a longstanding constraint for rural farmers and particularly for women farmers who do not have guarantees to access formal credits. In rural communities where access to capital is generally a challenge, women are worst off because the little capital available is allocated to men. For many women this has been a major constraint in making the necessary input investments into their farms and thus, encounter attendant impacts on the productivity of their farms. In our intervention communities, formal credit schemes are largely absent and thus, many farmers, -men, women and youth- rely on informal sources of capital for farm investment. While men both old and young men rely mostly on income from the sale of crops to invest in their farm, older men especially in the northern part of the country get capital from selling livestock while younger men sell their labour to raise capital for farm investment. For many women, they rely on loans from friends and family. For those in northern Ghana, they also sometimes process shea butter for sale to raise income for farm investment.

In the vegetable value chains in Upper East and Greater Accra, and the maize value chains in Bono East and Northern region, informal loans called crop advance from off-takers (market women, and largescale aggregators) exist at about 50% interest rate per crop cycle or payable with produce. However, these loans are considered as unfavourable and thus, rarely used. In Tuba community, formal credit from banks is available for farmers organized into sub-groups past in the last couple of years. Women are however, totally absent in these group credit schemes. They largely highlight their fear of accessing formal credit and the potential challenges that come with defaults when crop fails.

Table 1: Loan requested and received (GhC) in AICCRA and control communities

Region	Community	Requested			Granted		
		Female	Male	Total	Female	Male	Total
Bono East	Control	1,331	1,636	1,532	1,246	1,468	1,392
	AICCRA	847	1,943	1,548	808	1,704	1,381
	Total	1,089	1,783	1,539	1,027	1,581	1,387
Central	Control	920	1,083	1,009	540	817	691
	AICCRA	3,050	933	2,143	2,750	750	2,083
	Total	1,867	1033	1,450	1,522	800	1,182
Greater Accra	Control	1,000	0	1,000	1,000	0	1000
	AICCRA	0	50,000	50,000	0	50000	50,000
	Total	1,000	50,000	37,750	1,000	50000	37,750
Northern	Control	469	560	501	424	560	472
	AICCRA	579	751	658	521	716	610
	Total	529	683	593	476	661	553
Upper East	Control	1,040	1,263	1,177	840	1141	1,025
	AICCRA	800	933	857	800	767	786
	Total	933	1,173	1,065	822	1039	942
Upper West	Control	525	896	828	425	729	674
	AICCRA	400	433	430	400	350	355
	Total	483	664	639	417	539	522
All 6 regions	Control	907	1,222	1,101	781	1067	958
	AICCRA	965	3,547	2,589	897	3453	2,494
	Total	935	2,366	1,826	837	2231	1,703

Source: AICCRA-Ghana Cluster Baseline Survey Data, (2022).

Many women in our intervention communities however, have increased access to loans from their village savings and loans associations (VSLAs) and this has enhanced their access to capital (See Table 1). In almost all intervention communities, VSLAs exist and majority of the members are women. Women access loans at about 10-15% interests and many of them use the loans to invest in their farms (Dawuni, Mabe & Tahidu, 2021). The amount of money available to be given out as loans however, is dependent on the amounts of money women contribute. Thus, in these communities where savings range from GHC 2-10 cedis per week, the capital that is mobilized is woefully inadequate and thus, loans from VSLAs are insufficient to provide the necessary capital for farm financing. However, while these small loans are available for farm financing, many women rather take their savings during the 'share-out' to invest in farms rather than loans. The general risks aversion towards loans implies that even when such loans are available in VSLA, women still did not utilise this option much.



Plate 1: A VSLA Meeting

Extension services

Extension delivery services, including access to CSA and CIS in the communities are varied and overseen by the Ministry of Food and Agriculture (MoFA). MoFA agriculture extension agents (AEAs) meet farmers in these communities in groups to deliver knowledge on general agricultural practices. However, access to this MoFA extension service is enhanced in communities where established farmer-based organisations (FBOs) exist. In communities where FBOs are present, farmers have regular meetings with AEAs and these AEAs also connect and facilitate interactions between these FBOs, and other agriculture related non-governmental organisations (NGOs). Organised FBOs are particularly evident in the vegetable value chains in the Upper East and Greater Accra regions, the sweet potato value chain in Central region and maize and cowpea value chains in Upper West region. These FBOs also promote women's access to extension due to their participation in FBO meetings. FBOs have been found to be key to enhancing women's contact with extension services and their access to climate information services (Yirodomoh & Owusu, 2021). In these instances, women access information by themselves because of their membership in FBOs.

In communities where FBOs are less organised or absent, meetings with AEAs are ad hoc. Farmers rely mainly on their peers to access extension information. In such instance, women access information through men in their households. Also, in cases where irrigation projects operate, extension services are enhanced at the project site for the crops that are produced at the project site. Less support is provided for farming activities outside the project site.

The timing of FBO meetings and extension services is not a major community challenge. Communities and extension officers discuss a more appropriate time that suits majority of the community members, including women. In Yizeigu, for instance, women indicated that the time for extension meetings, which hitherto was earlier in the morning, was changed to 10AM so that women could attend after they finished their morning chores and got children to school. In Effutu Dehyia, it was moved from the evening to around 3PM so that it does not conflict with the time women use to cook dinner. However, access to the right teaching and learning aids, as well as demonstration fields to discuss and demonstrate management practices for instance, was a challenge. Many of the

FBOs are also the foundation for starting VSLAs, which are a crucial source of capital for many farmers, especially women. In some communities, these VSLAs are not only for financial support, but also for group crop production. In Yidongo for instance, women's VSLAs are involved in rice production. Part of the produce is shared among members for household consumption while part is sold, and the income injected into the VSLA.

Despite women's participation in FBOs, they are mostly not found in leadership positions. Women make up less than 15% of the leadership positions in the FBOs in communities where FBOs exist. Even in Yidongo where there are more women in the FBOs than men, there are more men in leadership positions. Thus, women are hardly involved in strategic FBO meetings where key decisions are taken. In some cases, when a husband and a wife belong to the same FBO, men usually attend regular meetings and are expected to convey information to their wives.

While AEs and their work with FBOs are a crucial source of information in all communities, radio and community information centres services are also an important source of extension information for farmers. Farmers indicated that they listen in to programmes that present and discuss issues related to farming including best management practices. Youth in these communities particularly listened to these radio programmes in addition to prime-time news where weather forecasts (temperature and rainfall) are also shared. Many farmers highlighted the ease with which information can be accessed through radio and community information centres. They however indicated that getting the right message from reliable sources to share through these media remains a challenge.

For many of these farmers, while they access some information on CSA from AEs and the radio, the application of CSA practices is ad hoc and depend on the availability of the technology, labour requirements and cost implication. This is consistent with other findings on the barriers to CSA uptake which include availability of technologies, labour cost and financing (CCAFS, 2021). Women particularly indicated labour and cost implications as major constraints to their uptake of CSA practices/technologies. In the vegetable value chains, transplanting for instance needs to be conducted at the right time to be climate-smart. Women, however indicated that they mostly conduct these activities late because they have to work on the de facto household farm (male farm) before working in their own farms. In the maize value chain especially in the Bono East region, women's sowing delay because tractor service for land preparation prefers to work on men's fields first because men usually have ready cash to pay for their fields. Women farmers in the Northern region highlighted similar instances of delayed planting due to tractor services prioritising men's plot. One woman bemoaned:

"I had a maize farm that I delayed in planting because I had to work on my husband's farm. And when it was time to do first weeding, we were all weeding my husband farm and so that also delayed. That, year I did not get any maize from the farm".

Women highlighted the importance of 'first weeding' for the productivity of maize. Yet, they mostly delay in weeding their maize plots because they have to weed the man's plot first. With regards to use of improved planting materials, fertilisers and agro chemicals, men, women and youth farmers all encounter challenges with financing even in instance where the inputs are available. Women particularly face this challenge because of their generally low levels of capital for farm financing. For instance, the capital demands for improved varieties of tomato planting materials as well as fertilisers and pesticides are the main reason why women preferred to cultivate leafy vegetables even when they had access to irrigation land. In the maize value chain, women recycled their farmer saved seeds more, sometimes up to 7 seasons, while men generally recycled up to 4 seasons. In the sweet potato and cowpea value chain which is generally dominated by women, access to suitable vines and seeds respectively, is a challenge and thus, impeding the productivity of these crops. Women sweet potato producers in particular highlighted the enormous potential to produce more but challenged by the unavailability of vines. Availability of improved varieties and the affordability of these varieties was highlighted as the main challenge for many farmers.

While some CSA information reach farmers in our intervention communities, access to appropriate climate-informed services are scarce. In all the communities, farmers indicated the importance of having timely information on rainfall and temperature especially, onset, cessation, duration and intensity. However, they indicated that with the exception of daily and weekly weather forecast given by the national meteorological agency as part of prime-time news, access to CIS for farm decision making is limited or absent. Voice and text messages for the delivery of CSA/CIS are gaining traction, however, this is not common in our intervention communities. Lack of cell connectivity, or access to cell phones, or lack of knowledge on the existence of such services are the main challenges to such e-extension services. In some of the intervention communities such as Agyegyemakunu in the Bono East Region, there is no cell connectivity. In the communities where cell connectivity exists many farmers especially women did not

have cell phones. Indeed, evidence from CCAFS indicates that women's ability to access CIS is less due to limited access to mobile phones (Partey et al., 2018). The few farmers who have phones do not know about the existence of e-extension, especially women.

Young men in a few communities however, access climate information service by Vodafone Ghana through a text message to a short code. This message mainly contains information on rainfall and temperature for specific geographical areas. Young men indicated that it only provides forecast for the week and does not give the necessary forecast data on on-set and cessation that are crucial for planning and farm activities. Although limited, these young men rely on this information to plan for their farm activities. For some of the farmers in Tampola and Yidongo, they were accessing ESOKO voice SMS extension service in the past. However, they indicated that this service has not been available for a couple of years. Farmers especially women, indicated that their access to CIS can be enhanced when such information is communicated through AEAs and/or through their community radios and information centres. Women indicated that aside information on rainfall being crucial for farm planning, the daily rainfall and temperature forecasts are also necessary for them to take decisions on drying of cowpea and other legumes which is a major part of their productive activities.

Value chains participation

There exists diverse participation in value chains for men, women, and youth. Men, women, and youth dominate in the production of different crops and in the same crop value chain, they dominate in different activities at different nodes of the chain. In our intervention communities, there exists diversity in value chain participation and this diversity is influenced by access to land, labour, capital, and the right knowledge. For instance, although vegetables are mainly regarded as women's crops, in our vegetable value chains, production takes place on irrigable lands and only few women have access to these lands. In these communities, women constitute less than 20% of farmers who have access to irrigable land and their holdings are about quarter to half of the holdings of men. Men are therefore the main people involved in vegetable production while women do other crops suitable for non-irrigable land such as rain-fed rice in Tampola and Yidongo. For the women who have access to irrigable land, the type of vegetables they produce is also influenced by financial and labour requirements. In Yidongo for instance, although tomato is the main crop at the irrigation site, many women at the site cultivate leafy vegetables which is less labour and input dependent and matures within two months compared to tomato which is more labour and input dependent and matures in 3 months. In rainy season where women can cultivate tomato in the uplands, the labour requirements to raise relatively higher mounds/ridges also serve as a major constraint. Thus, in the rainy season, they plant rice and cowpea instead of tomato.

In our intervention communities, there exists substantial number of women who produce maize especially in the Bono East region where maize land is mainly rented. Some of the women in these communities also cultivate cowpea. In our communities in the northern part of the country, where women generally have little access to land, they are the dominant people who intercrop leguminous crops (cowpea and groundnut mainly) with maize and yam. Thus, the same piece of land that belongs to the household is used by women during the season for cultivation of legumes. In consonance with other findings, there are substantial numbers of women (44%) engaged in maize production, however they dominate in the production of cowpea and groundnut holding about 67% and 53% respectively of total land area harvested for these crops (CCAFS 2021). Cowpea therefore, is a strategic crop for women in the northern and middle belts of the country, while maize is also strategic for women in the middle belt. In the southern belt, sweet potato was a strategic crop for women.

Despite the low participation of women in production, they are major players in the aggregation of produce. Generally, in crop value chains, women dominate small-scale aggregators who in-turn sell to large-scale aggregators who are mainly men (WFP, 2017). In our intervention communities, aside instances where off-takers come to the farms or communities to buy produce directly, women aggregate the produce for sale. In the vegetable and sweet potatoes value chains especially, women aggregate their household produce and that of neighbours and send them to the nearest market where large-scale aggregators operate. In the maize and cowpea value chains, women aggregate smaller quantities of produce from other farmers and sell in bowls in the surrounding markets.

The place of customs and norms in shaping gender and generational gaps

In AICCRA intervention communities akin to the general situation in Ghana, gender and generational inequalities in productive resource allocation and use are strongly rooted in the customs and norms that define who has what, when and how. Thus, the peculiar challenges women and youth face are rooted in customs that are entrenched, sometimes taken for granted and or considered natural. For instance, women's crop production is considered as secondary and of less value compared to that of men

who are considered the main income earners for households. On many occasions therefore, women are only granted access to land when it is abundant. Land scarcity and or scarcity of productive/fertile lands mean that women do not get land at all or are relegated to less fertile lands, or have to use the fallow lands available in households.

Culturally, men are expected to provide for the household so their farms are considered as the household farm. Women are expected to expend their labour on these farms which is the primary economic activity for the household. Women's labour in these farms are considered as obligatory to offer support to the household income generation activity. Yet, their labour activities in these farms are considered as less labour-intensive and thus, it's hidden drudgery and time-intensity is generally overlooked with its attendant consequences on societies' expectation that women should have ample time for reproductive roles. For many women in households, cultural norms impede their access to productive/fertile land and their own labour, which are crucial resources for crop production in rural Ghana (See vignette 1).

In Yidongo, farming activities occur on three types of land –irrigation land, homestead land, and community commons– and household labour activities for farming are gendered. At the irrigation site where vegetables are cultivated in the dry season, men, usually prepare the land and spray pesticides, while women transplant seedlings, weed, and harvest the vegetables. In the rainy season, the homestead land is used for millet cultivation. Men prepare this land as well while women sow, weed and help in the harvesting. The tomato and millet farms are mainly for the men and women are expected to work on them as part of their household duties. The community commons is used usually for the cultivation of cowpea and rice, and this is done by women although a few men also cultivate cowpea. Men prepare the land for the women in their households and women perform the remaining labour activities mainly with their self-help groups.

Men indicated that land preparation is a labour-intensive activity and men are the ones who have the strength to do it. They however indicated that it is culturally inappropriate for them to be involved in transplanting/sowing, weeding with a small hoe and harvesting of vegetables which are considered less labour-intensive and rudimentary for men to expend their labour on. While men indicated that they can compromise and do these activities when women have to attend to their rice fields, the schedule of farm activities is such that, tomato cultivation takes place in the dry season when women are not cultivating rice and millet cultivation takes place before planting of rice. Thus, within the farming cycle, women do all these activities with little or no help from men. One man asserted, “women only transplant, weed and harvest. These are not heavy jobs that make them too tired that they cannot cook”. Although women bemoaned the time-intensity of these so called rudimentary activities that they perform, they also indicated that men generally find it difficult to do these activities because they are too rudimentary. They further asserted that even less menial for men to do, are household chores. Women themselves have internalised their gender roles and both the productive and reproductive spheres. They indicated expecting men to engage in such chores challenges their masculinity.

Vignette 1: Gendered labour roles for farming in Yidongo

For women own account farmers, their access to capital for farm investment is less. Household income is invested in the male farm, the primary farm for the household. Women's access to extension services is also impeded by norms that confine women to the household and restrict their interaction with outsiders especially males. While women agriculture extension agents are crucial to bypass such local norms and enhance women' access to extension services (Yiridomoh & Owusu, 2021), there are few female extension workers in the intervention communities and thus, women still encounter these challenges. Internalising these norms has created a setting where women generally do not participate actively in extension activities. Women expect men in their households to attend trainings and pass on information to them.

Not only do community norms impact on women's access to resources, they also shape their involvement and participation in farmer-based organisations. Aside FBOs created with the intention to specifically reach out to women, few women participate in general FBOs and interact with men in their communities. Women generally do not regard themselves as necessary participants for FBOs. In instances where women join mixed FBOs, they hardly take leadership positions (See Vignette 2). The internalisation of

a male-decision maker figure prevents women from putting themselves up for leadership positions in FBOs nor attend meetings to take part in decision-making.

Vignette 2: Women and FBO decision making in Tuba

Tuba is a key vegetable production community where a government irrigation facility supports vegetable production all year round. Farmers who have fields at the irrigation site constitute a farmer-based organisation registered as a water users' association. Women constitute about 13% of the membership of the FBO at Tuba. In the build-up of AICCRA Ghana's engagement with the community, leaders and some members of the FBO met with the AICCRA team to discuss the project. In the first sets of meetings, no woman farmer attended the meeting. (see plate below)



It later became evident that women were not occupying leadership positions in the FBO nor the five sub-groups (called task force) set up in the bigger FBO. As a predominantly Muslim community, men were expected to lead and take strategic decisions while women remain followers. This is a norm that the women themselves have internalised and thus, women themselves did not think it was possible nor appropriate for them to take leadership positions in the FBO. This meant that women's voices were not heard and their peculiar challenges were not considered in decision making.

Vignette 2: Women and FBO decision making in Tuba

Although women are very much involved in household farming, their participation in farm decision making is less, including what farm incomes are used for. Their little participation is rooted in societal norms that vest decision making powers in male adults and regards women as followers. In instances where they are consulted, their inputs do not get enough consideration in decision making. Women's decision making is only sometimes enhanced in cases of decisions about their own farms.

AICCRA Ghana Strategy to making interventions Gender and youth smart

The gender and generational differences in the resource allocation and use in intervention communities are rooted in norms and customs of communities. For AICCRA interventions to be gender and youth smart, they should among other things improve access to CSA-CIS, and credit for women and youth. The technologies that will be promoted should also increase the productivity and incomes of women and youth while decreasing their workload. Enhanced access to CSA and CIS technologies that address the needs of women and youth can contribute to gender and generational equality and increase the resilience of women and youth to adapt to climate change and also provide a means to challenge gender norms (Huyer, 2019; Sterling & Huyer, 2010). Thus, gender

and youth sensitive technologies can improve the decision-making status of women and youth in households, communities and FBOs.

In consonance with Tovenor et al. (2019), Huyer et al. (2021), there exist a potential for women's and youth's enhanced participation in decision making, access and used of productive resources including CSA-CIS technologies, access to appropriate financing mechanism, reduction of workloads and collective action through group participation to contribute to building their climate resilience..

To foster a socially inclusive CSA-CIS-One-health intervention and technology, AICCRA Ghana adopts a strategy that builds the capacities of farmers especially women and youth to access these technologies. Since gender and generational gaps are rooted in norms and customs, AICCRA Ghana also sees transformational dialogues as a key complement to capacity building and access improvement. AICCRA Ghana therefore, combines gender-sensitive and transformative approaches to pursue social inclusion. Capacitation and transformative dialogues at different levels and scales is of strategic importance (see fig 2).

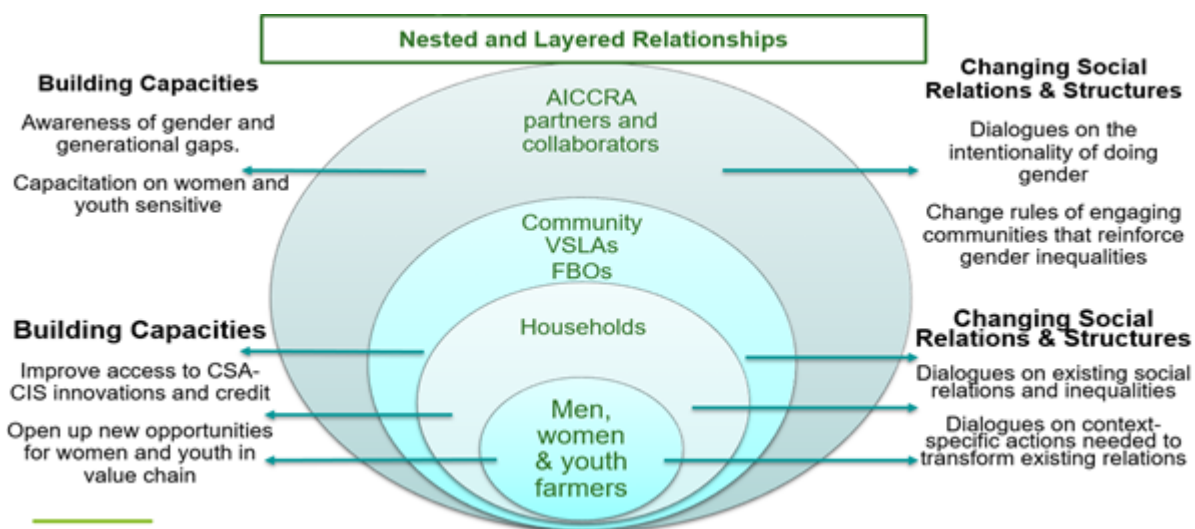


Fig 2. AICCRA Ghana's GSI approach..

Adapted from Torvikey et al. Forthcoming.

AICCRA Ghana's GSI approach (Fig 2) starts with the recognition of the different categories of farmers (men, women and youth) with differential access to resources, and who are members of households, communities and sometimes groups such as VSLAs and FBOs. AICCRA Ghana partners and collaborators are therefore interacting with farmers in these nested relationships who are an embodiment of the rules and norms governing social relations in their households, communities and groups. Recognition of these nested and layered relations is a crucial starting point for understanding the different capacitation needs of farmers.

For AICCRA Ghana partners and collaborators, there is the need for capacity building on awareness of gender and generational gaps and on strategies for addressing women and youth needs in intervention communities. In these intervention communities, partners and collaborators then build the capacities of farmers, households, FBOs and VSLAs with improve access to AICCRA CSA-CIS-One-health technologies and credit, as well as opportunities for women and youth in priority value chains. Being GSI responsive requires both mainstreaming GSI into all activities from technology identification to delivery of these technologies, and to further customise these technologies and their delivery to the needs of women and youth.

Since culture and societal norms although fluid, are often used as a justification to social relations that perpetuate inequality (Bryan et al., 2016), AICCRA interventions can make a lot of difference when accompanied by dialogues aimed at transforming these norms. Thus, for AICCRA Ghana, this requires dialogues among partners and collaborators on being intentional about integrating gender and youth responsive strategies in our activities and reflecting on the ways we engage and interact with communities that reinforces gender and generational inequalities. Partners and collaborators

then can initiate transformative dialogues with community members (FBOs, VSLAs) on existing social structures that create inequalities in resource access and to reflect with them on context appropriate actions to take to transform these structures.

To monitor progress and learn from and with the intervention communities, AICCRA Ghana will start collecting success and challenging stories early in the programme. Table 2 presents a summary of activities targeted at GSI for AICCRA Ghana.

Table 2: GSI activities for AICCRA Ghana.

Outcome	Activities
Mainstream GSI into products and decision support tools	<ol style="list-style-type: none"> 1. GSI dialogue with national partners and collaborators 2. GSI integrated into the CSA/CIS/One-health technology prioritisation, sustainable finance models, Ag-data hub.
Mainstream GSI into dissemination strategies and approaches	<ol style="list-style-type: none"> 1. Dialogue with collaborators and end users on GSI sensitive approaches and dissemination approaches 3. At least 40% of women and youth in capacity building programmes
Customise programmes for women and youth	<ol style="list-style-type: none"> 1. Customise AICCRA products including priority crop selection, prioritisation of technologies, and credit to women and youth needs. 2. Customise dissemination approaches to women and youth needs. 2. Work with females in partner and collaborating institutions and extension services.
Create safe space for incremental change in gender and generational norms	<ol style="list-style-type: none"> 1. Initiate partner and collaborator dialogues on taken for granted organisational norms. 2. Initiate community conversations on femininities and masculinities, and seniorities and juniorities.
Monitor the progress of GSI in AICCRA Ghana for evaluation and learning	<ol style="list-style-type: none"> 1. Train partners and collaborators to monitor GSI progress 2. Document success stories and challenges of community conversations for continues learning

Conclusion

Gender and generational gaps are high all facets of agriculture in Ghana and influence the type and sources of CSA-CIS practices. AICCRA-Ghana has identified intermediaries to reduce barriers to CSA-CIS practice uptake and utilization in Ghana. This therefore calls for a discussion on the gender-based differences that hinders CIS-CSA practice uptake and utilization. Intersectionality is key towards participation and taking front role in technology uptake and utilization. Financing has always driven women and youth access to CIS-CSA practices among smallholder farmers and the current VSLA setup among the various FBOs and community groups cannot achieve the required output level and hence the need to facilitate formalizing and institutionalizing these groups.

Additional readings

- Abdul-Razak, M., & Kruse, S. (2017). The adaptive capacity of smallholder farmers to climate change in the Northern Region of Ghana. *Climate Risk Management*, 17, 104-122.
- Adu-Boahen, K., Dadson, I. Y., & Halidu, M. A. (2019). Climatic variability and food crop production in the Bawku West district of the upper east region of Ghana. *Ghana Journal of Geography*, 11(1), 103-123.
- Adzawla, W., Azumah, S. B., Anani, P. Y., & Donkoh, S. A. (2019). Gender perspectives of climate change adaptation in two selected districts of Ghana. *Heliyon*, 5(11)
- Alhassan, S. I., Shaibu, M. T., Kuwornu, K. M. J., & Osman, T. D. (2018). Assessing smallholder women farmers' adaptive capacity to climate change and variability in the Northern Region of Ghana: A Composite Index Approach. *Journal of Energy and Natural resource Management*, 1(1).
- Bryan, E. B., Espinal, Q., Ringler, M., C. 2016. Integrating Gender into Climate Change Adaptation Programs: A Research and Capacity Needs Assessment for Sub-Saharan Africa. Denmark, Copenhagen: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Available at: <http://bit.ly/1SSoBBA>
- Dawuni, P., Mabe, F. N., & Tahidu, O. D. (2021). Effects of village savings and loan association on agricultural value productivity in Northern Region of Ghana. *Agricultural Finance Review*.
- Ghana Statistical Service. (GSS) (2014). Ghana living standards survey round 6 (GLSS 6). Accra, Ghana
- Higgins, T. & Fenrich, J. (2011). Legal Pluralism, Gender, and Access to Land in Ghana. *Fordham Environmental Law Review* Volume 23, Number 2 2011. Available at <https://core.ac.uk/download/pdf/144232196.pdf>
- Huyer, S., Simelton, E., Chanana, N., Mulema, A.A., & Marty, E. (2021). Expanding Opportunities: Scaling Up Gender and Social Inclusion in Climate-Resilient Agriculture: An Equality and Empowerment Approach. AICCRA Info Note
- Huyer, S. (2016). Closing the Gender Gap in Agriculture. *Gender, Technology and Development*, 20(2), 105-116. doi: 10.1177/0971852416643872
- Huyer, S. (2019). ICT in a Changing Climate: A Path to Gender-Transformative Food Security. In A. Sey & N. Hafkin (Eds.), *Taking Stock: Data and Evidence on Gender Digital Equality*. United Nations University.
- Huyer, S., & Partey, S. (2020). Weathering the storm or storming the norms? Moving gender equality forward in climate-resilient agriculture. *Climatic Change*, 158(1), 1-12. doi: 10.1007/s10584-019-02612-5
- Huyer, S., Campbell, B.M., Hill, C. & Vermeulen, S. (2016). CCAFS Gender and Social Inclusion Strategy. CCAFS Working Paper no. 171. Copenhagen, Denmark: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Available online at: www.ccafs.cgiar.org
- Quisumbing, A. R., Meinzen-Dick, R., Raney, T. L., Croppenstedt, A., Behrman, J. A., & Peterman, A. (2014). Closing the knowledge gap on gender in agriculture. In *Gender in agriculture* (pp. 3-27). Springer, Dordrecht.
- SEND Ghana (2014). Women and smallholder agriculture in Ghana. A policy brief. No 4/October2014, Accra Ghana.
- Sterling, R., & Huyer, S. (2010). The Place for Development: Power shifts and participatory spaces in ICTD. In *The Journal of Community Informatics* (Vol. 5, Issues 3-4).
- WFP (World Food Program) 2017. Value Chain Development, Gender and Women's Empowerment in Ghana. VAM Gender and Markets Study #1. Dakar Senegal: World Food Program Bureau Regional Dakar
- Yiridomoh G. Y. & Owusu, V. (2021). Do women farmers cope or adapt to strategies in response to climate extreme events? Evidence from rural Ghana. *Climate and Development*.

Accelerating Impacts of CGIAR Climate Research for Africa (AICCRA) is a project that helps deliver a climate-smart African future driven by science and innovation in agriculture.

Explore our work at aiccra.cgiar.org

Follow us @CGIARAfrica



AICCRA
Accelerating Impacts of CGIAR
Climate Research for Africa



IITA

Transforming African Agriculture

