



RESEARCH PROGRAM ON  
Climate Change,  
Agriculture and  
Food Security



# CLIMATE-SMART COCOA: A GENDER TRANSFORMATIVE APPROACH

## WRITTEN AND COMPILED BY

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- **CCAFS** Climate Change, Agriculture and Food Security
- **CSA** Community-Supported Agriculture
- **CSC** Climate Smart Cocoa
- **FAO-** Food and Agriculture Organization
- **FGD** Focus Group Discussions
- **GDP** Gross Domestic Product
- **GTA** Gender Transformative Approach
- **IITA** International Institute of Tropical Agriculture
- **LBCs** Licensed Buying Companies
- **MMDAs** Metropolitan, Municipal and District Assemblies
- **NGOs** Non-Governmental Organizations
- **PPE** Personal Protective Equipment
- **SDGs** Sustainable Development Goals
- **SIA** Stepwise Investment Approach

# LIST OF ABBREVIATIONS

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## Executive Summary

The agricultural sector is a major contributor to Gross Domestic Product (GDP) and cocoa is an important foreign exchange earner for Ghana. In recent times, cocoa yields have been declining largely attributed to climate change and other more enduring agrarian factors. Over the years, programmes have been instituted by the state and non-state actors to rejuvenate cocoa production and secure the livelihoods of the thousands of farmer and farm-worker households that depend on the sector. Making programmes and related interventions inclusive has become a development imperative and the agriculture sector is no exception. The Sustainable Development Goals (SDGs) particularly Goal 1 (no poverty) Goal 2 (no hunger), Goal 5 (gender equality) Goal 8 (decent work and economic growth) and Goal 12 (reasonable consumption and production) advance equity, equality and inclusiveness which can only be achieved when programmes are tailored to the needs of all social groups in a particular society. Inclusion ensures that all groups of people especially the vulnerable in society participate in the design and implementation of policies, programmes and interventions (Baud, 2016). However, normative and structural conditions continue to undermine gender and generational aspects of inclusion in the agricultural development in rural areas (Rietveld, van der Burg & Groot 2020; FAO 2016). In the cocoa sector in Ghana, these structural and hierarchical challenges show gender and generational disparities in access to productive resources. These have ramifications for harnessing the development potential of the sector (Marston 2016) for household wellbeing and economic growth. Women and youth play crucial roles in Ghana's cocoa sector yet face discrimination in structural dimensions such as access to land, labour, capital and functional parameters such as access to extension services, credit and integration into programmes and interventions (Barrientos and Bobie, 2016; Lowe, 2017; Mabe et al 2020).

Programmes and related interventions have the potential to enhance gender and generational equality, bridge the gender and generational gap while generating broader gains at the individual, household, community, country and value/commodity chain levels. The IITA and its consortium partners namely Sustainable Food Lab, CIAT, Root Capital and Rainforest Alliance in the past (2015-2019) under Climate Change Agriculture and Food Security Program (CCAFS) -Phase 1 have documented and prescribed Climate Smart Cocoa (CSC) practices in Ghana according to the climate impact zones. These practices have been tailored to the needs of cocoa farming in the different zones using a

Stepwise Investment Approach (SIA) that is dependent on farmer segmentation. This novel approach to climate resilience, mitigation and adaptation in the cocoa sector promises to be the anchor towards sustainable production of the crop.

This research examined the gender and generational dimensions of cocoa production and how they potentially mediate Climate-Smart Agriculture (CSA) adoption. Unpacking the differences will provide a background in developing a gender transformative pathway for companies to incorporate into the designing and implementation of their programmes. The specific objectives of the project include to,

- Examine the key challenges faced by women, men and youth in the context of CSC adoption.
- Propose and give clear feasible remedies for the challenges identified by the various social groups with a special focus on women and youth.
- Develop clear pathways on how companies can incorporate Gender Transformative Approaches (GTAs) in their programmes.

For a holistic and evidence-based assessment of gender and generational issues in the cocoa sector and how they mediate CSA adoption, multiple sources of qualitative and quantitative data were triangulated. The CCAFS project has classified the cocoa belt into three zones, namely *transform*, *adjust*, and *cope*. These zones are categorised based on cocoa related activities, current and projected climatic conditions and required adaptive capacities. The *transform* zone experiences extremely hotter temperatures and drier conditions and will therefore not be suitable for cocoa farming in the future. The *adjust* zone experiences higher annual average temperatures; weak and short dry season with comparatively higher precipitation in the driest quarter and higher annual precipitation. The *cope* zone has unpredictable climate impact trajectories. According to Bunn, *et al.* (2019), the climatic conditions are favourable for cocoa production. Climatic changes will have little effects on cocoa production. This means they require basic management practices and therefore will have to focus on general Good Agricultural Practices and no-regret solutions to build stronger systems to enhance adaptive capacity. The analysis in this study focused on the Cope and Adjust zones. Two communities in the *adjust* zone in the Western Region, and two communities in the *cope* zone in the Ashanti region were sampled for the study. The *transform* climatic zone requires diversification into other crops and off-farm income generation activities (IGAs) and therefore, not selected for this study. However, insights from studies in this zone have informed some of the discussions in this report.

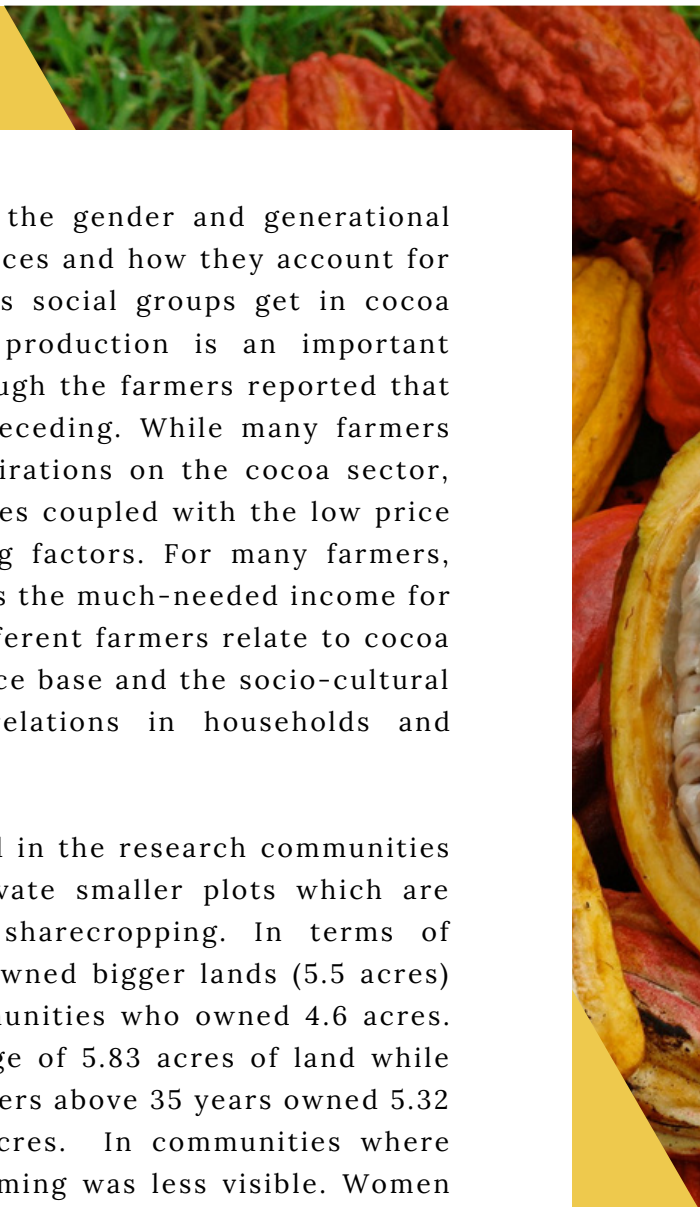
## Key Findings

The findings from the study established the gender and generational dimensions of access to productive resources and how they account for the outcomes that farmers in the various social groups get in cocoa production. In all communities, cocoa production is an important livelihood activity for many farmers although the farmers reported that their expectations from the sector are receding. While many farmers centre both their present and future aspirations on the cocoa sector, climate change, pest and disease incidences coupled with the low price offered for the crop remain demotivating factors. For many farmers, cocoa is an asset crop and further provides the much-needed income for investment in other sectors. However, different farmers relate to cocoa production differently due to their resource base and the socio-cultural norms that are embedded in social relations in households and communities.

The average land size for farmers sampled in the research communities was 5.08 acres. Women and youth cultivate smaller plots which are mainly inherited or acquired through sharecropping. In terms of location, farmers in *adjust* communities owned bigger lands (5.5 acres) than their counterparts in the *cope* communities who owned 4.6 acres. In terms of gender, men owned an average of 5.83 acres of land while women owned 4.17 acres. On average, farmers above 35 years owned 5.32 acres of land while youth owned 4.22 acres. In communities where farmers have smaller plots, food crop farming was less visible. Women and youth also tended to cultivate relatively fewer food crops across the communities because of land constraints. In general, the smaller the land, the more likely a farmer will allocate it to cocoa farming and less on food crops. This has implications for food security. In many communities, while men cultivated three main food crops with market values -plantain, cassava and maize- for instance, women cultivated cocoyam predominantly.

There are also labour access differences among social groups. Older women tended to hire labour than younger women. Young women tend to rely on their own labour while older women tended to hire labour.

Husbands provided labour on women's farms. Youth mainly produced cocoa with their own labour due to financial resource constraints. Married youth also relied on the labour of their spouses. Wealthier male farmers used hired and family labour. These sources of labour were more assured as women were bound by conjugal duty to work on their husband's farms. However, there was unequal labour exchange on farms as men were not obliged to provide such labour services on their wives' farms.





In general, government agricultural extension services were low or inadequate in many communities. Farmers reported not having adequate information on sound farm management practices and when they do come, they come in late. The gendered differences in access to information were also evident. Most people who access extension services were men with bigger cocoa farms. Women and youth receive fewer extension services which were attributed to their poor resource base.

Agricultural interventions were sometimes structured in ways that favour men with the unitary model of household logic which assumes that whatever the man learns will trickle down to the household. Meanwhile, the households themselves are spaces for the entrenchment of gender and generational ideologies and hierarchical power dynamics. The study found that in almost all communities, while older men favoured women's involvement in decision making and for them to take control of cocoa related decision making, they only accepted this for instrumental reasons such as the benefits that the household will derive from it. Most importantly, many male youths disfavoured women's participation in decision making. The reasons for these included the fact that women are made to help men and the labour intensiveness of cocoa production among others. This requires programmes that are modelled with a Gender Transformative Approach (GTA) framework that will tackle the individual level capacities, social relations and the inherent institutional rules of organisations that work in the cocoa sector.

### **Recommendations**

- Initiate programmes and campaigns that aim at behavioural change, especially targeting the discriminatory practices and patriarchal norms in communities. This means excavating traditional practices that promote equity and gender equality and combining these with modern ones. These messages should target specific constituencies such as youth who are more averse to women's participation in decision making.
  - Initiate youth clubs where conversations are held about gender inequality and equity.
- Develop gender-sensitive extension service and training programmes that take into account literacy levels of the various social groups, local farm management practices and indigenous knowledge.

- Develop content in the Ghanaian languages spoken in the communities.
- Design programmes in formats that are clear, concise, accessible, sensitive and friendly to farmers especially women and youth. This should include the use of multiple dissemination channels such as community information centres, Farmer Based Organisations (FBOs), infographics, local radio, storytelling, community durbars, festivals, religious activities and theatre among others.
- Integrate climate change and variability information in extension service delivery
- Initiate affirmative action programmes by ensuring that the leadership of producer-based organisations in communities have women in leadership positions.
- Promote safe traditional and modern savings and loans schemes to encourage savings and to enhance access to loans in times of shock.
  - Support local credit schemes with resources to function in ways that promote equity and equality. These should target women, youth, poorer farmers and other vulnerable social groups.
- Design programmes that create a pool of labour-saving technologies
- in communities for easy access.
  - Identify agricultural and non-agricultural labour-saving technologies that are required in communities.
  - Identify ways in which access can be enhanced especially for women and youth.
  - Promote collective/group ownership of equipment and its management to ensure the sustainability of the programmes.
- Design programmes that help free women and girls of reproductive roles so they can have enough time for productive activities and leisure.
  - Invest in basic social services such as water and energy in communities.
- Promote alternative on-farm and off-farm livelihood activities in farming communities through community-based discussion processes and skills development programmes. The programmes will promote reinvestment in cocoa production and vice versa.
  - Promote food crop production as part of agroecological practices.
  - Develop multiple clusters of livelihoods including animal rearing and crop production both in terms of intensification and extensification.
  - Design programmes that encourage processing and value addition on agriculture and non-agricultural products to improve earnings.
  - Create programmes that link rural producers to markets

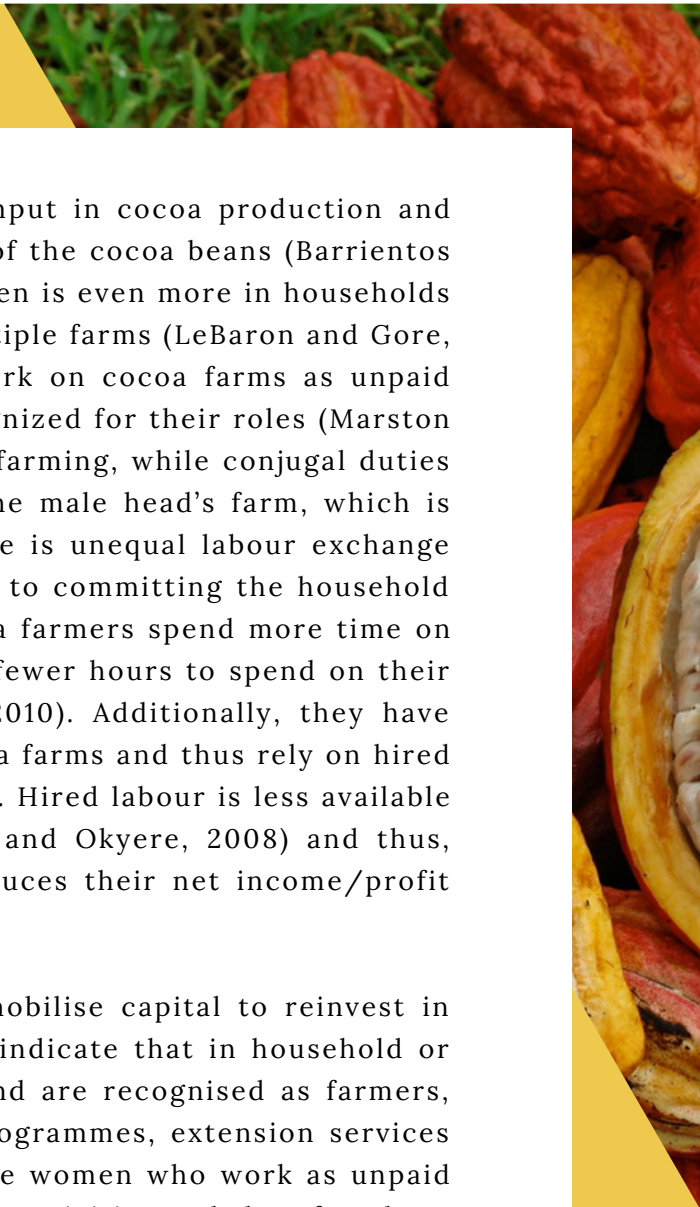
- Advocate for higher producer price for cocoa to compensate for farmer's investment in production.
- Design programmes that promote the health of farmers.

### 1. Country/Project Context for Study

Development programmes are increasingly striving to design programmes that are inclusive. Designing inclusive interventions has become a development goal and the agriculture sector is not an exception. Inclusion ensures that all groups of people especially the vulnerable in society participate in the processes and outcomes of policies, programmes and interventions (Baud, 2016). However, gender and generational discrimination continue to pose challenges to agricultural development (FAO 2016). Ghana's cocoa sector is also confronted with gender and generational disparities which pose a challenge to harnessing the development potential of the sector (Marston 2016). Women and youth are integral actors in cocoa production; however, they face discrimination in structural dimensions such as access to land, labour, capital and functional parameters such as access to extension service, credit and integration into programmes and interventions (Barrientos and Bobie, 2016; Lowe, 2017; Mabe et al 2020).

In Ghana, 80 per cent of land is managed under customary norms and these norms discriminate against women (Higgins and Fenrich, 2011). Women largely do not own land thus, are unable to be actively integrated into cocoa farming as own account farmers. Although in recent years some men are bequeathing and or 'gifting' part of their land to their wives (Quisumbing et al., 2004; Barrientos and Bobie, 2016), these lands that women access through inheritance, bequeathing and gifting are relatively smaller compared to the holdings of men. Since one's status as a cocoa farmer is constructed through the ownership of land, in spite of many women's involvement in cocoa farming, the crop is largely perceived as a 'male crop' and only about 20 per cent of recognised cocoa farmers are females (Barrientos and Bobie, 2016). The situation is not different for youth who also face discrimination in accessing land for long term productive activities such as cocoa production (Lowe, 2017).

Although few women and youth own lands in the cocoa landscape, they are an integral source of labour in cocoa farming. Women, for instance, provide a significant source of labour on cocoa farms owned by their husbands and or families (Marston 2016; Bymolt et al, 2018). They



contribute up to 45 per cent of labour input in cocoa production and their activities are critical to the quality of the cocoa beans (Barrientos and Bobie, 2016). The labour input of women is even more in households who work as caretakers and attend to multiple farms (LeBaron and Gore, 2019). In spite of this, women largely work on cocoa farms as unpaid family labour and they are often not recognized for their roles (Marston 2016). In instances of own account cocoa farming, while conjugal duties oblige women and children to work on the male head's farm, which is also considered the household farm, there is unequal labour exchange between wife and husband when it comes to committing the household labour to the woman's farm. Women cocoa farmers spend more time on reproductive roles than males, thus have fewer hours to spend on their farms compared to men (Kumase et al.,2010). Additionally, they have little access to family labour in their cocoa farms and thus rely on hired labour mostly (UTZ and Solidaridad, 2009). Hired labour is less available and relatively not affordable (Barrientos and Okyere, 2008) and thus, women's dependence on hired labour reduces their net income/profit from cocoa farming.

Women also face further challenges to mobilise capital to reinvest in their farms. Barrientos and Bobie, (2016) indicate that in household or family farming, men possess passbooks and are recognised as farmers, thus, they are integrated into training programmes, extension services and have access to financial services while women who work as unpaid family labour are largely excluded in these activities and therefore have to rely on their husbands. The high extension officer to farmer ratio, for instance, implies that extension workers give attention to wealthy and influential farmers and these are rarely women (Barrientos and Bobie, 2016). The challenges women face including their small landholdings, little access to household labour and the cost involved in hired labour, low access to extension service and credit all culminate into low productivity of farms owned by women and impedes their ability to reinvest in their farms. Danso-Abbeam and Baiyegunhi (2020) for instance note that female cocoa farmers are less technically efficient compared to male cocoa farmers and this gap could be attributed to the difference in their resource endowments.

Family and household farming continue to dominate in Ghana and in these farming systems, there exist strict gender and generational division of labour in which older men control productive assets and associated decision making while women and youth continue to work as unpaid labour in family cocoa farms in addition to their roles in household tasks. With gender and generational discrimination fairly

entrenched, young women are doubly disadvantaged by the intersection of their sex and age (Lowe, 2017).

Thus, a cycle of vulnerability and related discrimination exists, and women and youth continually possess little to no access and control over productive resources and decision-making in cocoa production. This discrimination transcends household/familial domains to the community and country domains and impedes the ability of the cocoa sector to harness its full potential and deliver living incomes to all classes of cocoa farmers.

### **1.1 Project Context and Purpose of the Study**

Programmes and related interventions have the potential to enhance gender and generational equality, bridge the gender and generational gap while generating broader gains at the individual, household, community, country and value/commodity chains levels. The IITA and its consortium partners (Sustainable Food Lab, CIAT, Root Capital and Rainforest Alliance) in the past (2015-2019) under CCAFS Phase 1 have documented and prescribed Climate Smart Cocoa (CSC) practices in Ghana according to the climate impact zones. These practices have been tailored to the needs of cocoa farming in the different zones using a Stepwise Investment Approach (SIA) that is dependent on farmer segmentation. This novel approach to climate resilience, mitigation and adaptation in the cocoa sector promises to be the anchor towards sustainable production of the crop.

Gender and generational discrimination in the structural and functional dimensions persist in the cocoa sector. Men, women and youth face different challenges, access opportunities differently, and thus programmes affect them differently (FAO, 2016). Hence, for the stepwise investment approach and associated decision support tools to have the intended outcomes and impacts, it has to value and incorporate the different ways men, women and youth are endowed and thus would potentially access, adopt and utilise the approaches differently. The potential of the SIA to generate broader gains requires and hinges on a deliberate effort to move beyond gender and generational blind, and gender and generational neutral investments/approaches, to gender and generation sensitive investments/approaches. Gender and generational sensitivity require programmes to make a conscious effort to understand gender and generational disparities around which lives and livelihoods in the productive and reproductive spheres are constructed. It requires programmes to use insights from such understanding in the

design and implementation of related interventions. This gender and generational sensitivity ensure that men, women and youth enjoy the same opportunities in programme interventions and ensure that their different conditions and aspirations are valued, incorporated and supported. Without critical gender and generations analysis, programmes and related interventions risk leaving a critical mass of the farming population behind and potentially further widen the gender and generational gaps as unintended consequences. The report draws from the Gender Transformative Approach (GTA) that contextualises the constraints to equity and gender equality. A Gender Transformative Approach requires engaging with several institutions and constituencies in the development and implementation of programmes. GTA aims at changing the power structures that establish hierarchies in ways that obstruct the equitable distribution of resources. This also affects access to opportunities and therefore programme outcomes.

## 1.2 Objectives of the Study

This study aimed at examining the gender and generational dimensions of cocoa production and how it potentially mediates CSA adoption, in order to develop a gender transformative pathway for companies to incorporate in their programmes. The study specifically,

- Examines the key challenges faced by women, men and youth in the context of CSC adoption.
- Proposes and gives clear feasible remedies for the challenges identified by the various social groups with a special focus on women and youth.
- Develops clear pathways on how companies can incorporate the GTA's in their programmes

## 2. Methodology of the Study

For a holistic and evidence-based assessment of gender and generational issues in the cocoa sector and how they mediate CSA adoption, data from multiple sources were triangulated. Literature was reviewed on gender and generational disparities of agricultural production and rural livelihoods with a special focus on cocoa-growing communities in Ghana. This review provided insights to contextualise the study.

A description of CCAFS project communities has been provided. The CCAFS project has classified the cocoa belt into three climatic impact zones, that is, transform, adjust, and cope zones. These zones are

categorised based on cocoa related activities, current and projected climatic conditions and required adaptive capacities. The transform zone experiences hot and dry temperature and will therefore not be suitable for cocoa farming in the future. The adjust zone experiences higher annual average temperature; weak dry season (short, with comparatively higher precipitation in the driest quarter) and higher annual precipitation. The cope zone has unpredictable climate impact trajectories. This means they require basic management practices and therefore will have to focus on general Good Agricultural Practices and no-regret solutions to build stronger systems to enhance adaptive capacity. In this study, we focused on the adjust and cope zones and not the transform zone because farmers in the latter zone may need to diversify into other crops and off-farm income-generating activities. Betinko and Katakwiwaa in the adjust zone and Sompre and Yebrebrenyini in cope zone were sampled for the study.

Twelve Focus Group Discussion (FGD) sessions were held in the communities. In each community, we conducted adult males FGD comprising men above age 35, adult female FGD comprising women above age 35 and a youth FGD comprising young men and women 34 years and below. The FGDs paid particular attention to the lived experiences of men, women and youth in their daily lives in cocoa-growing communities and in relation to cocoa production. Attention was given to the outstanding activities of each group, the challenges encountered and the strategies or key enablers to improve daily lives and cocoa activities.



*Photo credit: Abdul Razack Saeed PhD, Rainforest Alliance IITA/RA Farmers Field Survey 2020*

In addition to the FGDs, we conducted a face-to-face survey with 200 community dwellers 50 in each community. The survey focused on land and its related dimensions of access, ownership and use; labour and its access and cost for productive and reproductive work; crops including cocoa and their related activities and decision-making; as well as indicators of changing lives of participants.



*Photo credit: Abdul Razack Saeed PhD, Rainforest Alliance/ IITA- RA Farmers Field Survey 2020*

We complemented the data from the FGDs and survey with additional data from FGDs conducted in 2017 in three communities each in the transform, adjust and cope zones. Akin to the current FGDs, the old FGDs were also conducted in separate men, women and youth groups. This data from 2017 provided insights on cocoa production in the zones, specifically what structural and functional indicators differentiate farmers who are doing well and those not doing well according to gender and generation.

We triangulated data from these multiple sources to gain insights into gender and generational disparities in the study communities. In this report, we present the results and insights by gender and generation and according to the community.



### 3. Results and Discussion

#### 3.1 Sociodemographic Characteristics

The study was conducted in four communities in two climatic zones, namely “cope” and “adjust” in the Western and Ashanti Regions of Ghana. These regions are significant for their present and past cocoa production histories. The Ashanti Region is one of the earliest cocoa frontiers and the Western Region the newest frontier. In the Western Region, the study was conducted at Sompre and Yebrebrenyini communities. Which are classified in terms of climatic impacts as coping zones. Betinko and Katakwiwaa are communities in the Ashanti Region which in climatic impact of production assessment is classified as “Adjust” zones. Table 1 summarises the Sociodemographic characteristics of participants in the communities in the various climatic zones

**Table 1: Sociodemographic Characteristics of Research Participants**

Variables		CLIMATIC IMPACT ZONE			
		COPE		ADJUST	
		FEMALE	MALE	FEMALE	MALE
Sex	-	52	48	39	62
Age	18 - 34 years	15	9	9	11
	35 years +	37	39	30	51
Marital Status	Married	35	41	26	53
	Single/ Seperated	5	7	3	6
	Widow/ Widower	10	0	9	3
Average no. of year of schooling	-	5	6	6	7
Status in the household	Household head	16	46	23	57
	Spouse of household head	32	0	15	0
	Child of household head	4	2	1	5
Number of plots	One	28	14	15	23
	Two	19	16	13	17
	Three	4	11	8	15
	Four	1	6	1	5
	Five	0	0	2	2
	Six	0	1	0	0

Source: IITA & Rainforest Alliance Farmers Field Survey, 2020

Fifty-two per cent of women in the cope climatic zone and another 39 per cent in the Adjust Zone participated in the survey. Most respondents were in monogamous marriages. More significantly while more men reported that they had separated or were single in both climatic zones, more women reported that they were divorced. In general, men had a slightly higher education than women in all communities. However, men in the adjust zone had a slightly higher education than men in the cope climatic zones. The trend is similar for females in both climatic zones. The average number of years of schooling was used as the measure of the level of education. Across communities, more men sampled were household heads. However, more women sampled in the adjust zone were household heads than those in cope communities. On the contrary, more women sampled in the cope zone were spouses of the household head than their counterparts in the Adjust communities.

In the two zones, the majority of farmers had an average of two plots. Farmers in adjust communities have a slightly higher number of plots (2.1) than their counterparts in cope communities who owned 1.9 plots which is lower than the average number of plots across the climatic zones. In terms of plot holding, women owned a lesser number of plots (1.8) than men (2.2). This means that the higher the number of plots, the more men are represented. There are community differences in the number of plots recorded. In general, both men and women in the cope zones reported having more plots than their counterparts in the adjust zone. While the number of plots does not necessarily explain adequately the land question as land size explains class differences better, this variable also gives an idea about the relationship between cash cropping and food cropping patterns. Besides, this trend mimics the land size pattern of men owning more lands than women and youth. This is because the less the number of plots, the more it will be committed to cocoa farming and less on food crops.

### **Gender and Generational Cropping Patterns**

Food crop production is an important dimension of the cocoa production system. Many farmers rely on food crops during the downturn of cocoa production. Food crop production also serves instrumental purposes for cocoa production especially at the initial stages when the young cocoa plants need protection from direct sunshine. However, as cocoa matures and canopies begin to form, food crop production reduces. Table 2 presents the pattern of food cropping pattern among the social groups.

**Table 2: Gender and Generation Pattern of food Crop production**

Variables	CROP FREQUENCY			
	PLANTAIN	CASSAVA	COCOYAM	MAIZE
Female	77	69	41	17
Male	93	81	27	24
<b>Total</b>	<b>170</b>	<b>150</b>	<b>68</b>	<b>41</b>
18 - 34 years	39	34	12	5
35 years +	131	116	56	36

Source: IITA & Rainforest Alliance Farmers Field Survey, 2020

In the study communities, many farmers (85 per cent) cultivated plantain while 75 per cent cultivated cassava. Many others cultivated cocoyam and maize. Gendered cropping patterns were observed. Cocoyam was the only crop produced predominantly by women. More men than women cultivated plantain, cassava and maize. There are also generational differences in food crops cultivated by individuals as older people cultivated all food crops than youth in the communities. Access to and control of land and land size explains the gender and generational differences in cropping patterns as farmers who owned more lands allocate some to food crop production.

It is expected that social categories whose land-use rights are derivatives from higher hierarchies will face difficulties cultivating cocoa and other food crops simultaneously. In the study communities, men hold bigger land sizes than women and youth and therefore are able to use parts of these lands for food crop production. The characteristics of cocoyam allow for its cultivation within matured cocoa farms and that explains why more women cultivate the crop than men. Closely linked to this is the lower market value attached to cocoyam compared to plantain, cassava and maize which means that the crop is less attractive to men.

#### **4. Labour and Decision Making in Food Crop Farming**

In agrarian Ghana, gender and generational division of agricultural labour is a normal practice. Labour practices also endear women to particular crops. Cropping pattern studies in Ghana that label cassava as women’s crop argue that women cultivate cassava due to its less tedious labour requirements (Torvikey, 2019, Bukh 1979). Tasks pertaining to food crop production are segmented by gender and generation. In general, the trend shows that land preparation, farm labour provision and input acquisition are predominantly done by men (see tables 14, 15 at pages 34 and 35 respectively). These men can be husbands, f

farmworkers and other male relations. Women who own farm themselves carry out some tasks themselves but also rely heavily on the labour of their husbands, other males in the family or hired labour. Youth also work on the farms themselves or rely on the labour of their spouses. Women own account farmers minimally acquire input themselves. Their husbands, labourers or other males in their households acquired input for them.

Most post-production activities such as processing, value addition and marketing are predominantly done by women. Even in houses where the men produce the particular food crop, women engage in processing and marketing of the crop. However, in general, processing and value addition of the main food crops cultivated in the communities namely plantain, cassava, maize and cocoyam are minimal. Processing, value addition and marketing can be promoted as alternative livelihoods for farmers to enhance incomes in the cocoa-growing areas. Technology introduction in processing will reduce the drudgery in that sector of the chain and also make it attractive to youth (see tables 16 & 17 at pages 36 & 37).

Decision making concerning the use of income is also based on gender and generation. In general, older farmers control their own income earned from agricultural production. Women take decisions on incomes from crops they have control over and in this case cocoyam. Crop processing and marketing also give women some decision-making leverage. For example, while male participants indicated that women take income decisions concerning cassava, men take decisions that concern plantain and maize which are crops that are less processed. It is to be noted that maize and plantain are major market-oriented food crops for men (see tables 18 & 19 at pages 38 & 39).

## **5. Cocoa Production**

In rural areas, land ownership, access and tenure determine to a large extent land use and the gains that one gets from production. In the study communities, although there are varied land ownership types, three namely inheritance (35 per cent), renting (35 per cent) and temporary gift (14 per cent) are the commonest forms. These land ownership statuses are common among all farmers regardless of age and sex (see table 3).

**Table 3: Land Ownership Status**

Variables	Land Ownership status (%)						
	Bought	Family land	Given forever	Given temporary	Inherited	Rented in	Rented out
Female	3	1	1	6	19	16	1
Male	8	4	1	8	27	19	-
<b>Total</b>	<b>11</b>	<b>5</b>	<b>2</b>	<b>14</b>	<b>35</b>	<b>35</b>	<b>1</b>
Youth	3	1	1	4	8	6	-
Adults	9	3	1	10	28	29	1
<b>Total</b>	<b>12</b>	<b>4</b>	<b>2</b>	<b>14</b>	<b>36</b>	<b>35</b>	<b>1</b>

Source: IITA & Rainforest Alliance Farmers Field Survey, 2020

Two main land tenure practices were common among respondents regardless of age and sex. Almost half of the respondents had cultivated cocoa on freehold lands(48 per cent) while another half (47 per cent) had cultivated cocoa on sharecropping tenurial arrangement (see table 4).

**Table 4: Land Tenure Practices**

Variables	Land Ownership status (%)				
	Customary	Freehold	Leasehold	Public common land	Sharecropping
Female	1	21	1	1	22
Male	1	27	2	0	25
<b>Total</b>	<b>2</b>	<b>48</b>	<b>3</b>	<b>1</b>	<b>47</b>
Youth	1	12	1	0	10
Adults	2	36	2	1	37
<b>Total</b>	<b>3</b>	<b>48</b>	<b>2</b>	<b>1</b>	<b>47</b>

Source: IITA & Rainforest Alliance Farmers Field Survey, 2020

Land sizes vary by location, sex and age. In general, men owned more lands than women while older farmers owned more lands than youth. The trend shows that social groups that own smaller plots of lands commit almost all of it to cocoa production. For instance, in Sompre, where women owned an average of 3.2 acres of land, 3.1 acres was committed to cocoa production. Men in the community owned an average of 15.5 acres of land and committed 7.3 acres to cocoa production. Youth in the same community owned an average of 7.3 acres of land and committed all of it to cocoa production (see table 5)

**Table 5: Land size by Gender, Generation and Location**

Communities	Focus group	Land Ownership status (%)		
		Average Age	Average land size (Acres)	Average land size under cocoa (Acres)
<b>Cope Climatic Zone</b>				
<b>Sompre</b>	Women	47	3.2	3.1
	Men	49	15.5	7.3
	Youth	26	7.3	7.3
<b>Yebrebrenyini</b>	Women	54	5.7	4.9
	Men	56	5.7	5.0
	Youth	28	14.3	14.1
<b>Adjust Climatic Zone</b>				
<b>Betinko</b>	Women	46	10	10
	Men	30	13.9	8.8
	Youth	50	9.2	8
<b>Sompre</b>	Women	55	11.6	11.6
	Men	53	14.1	12.6
	Youth	27	10	10

Source: IITA & Rainforest Alliance Farmers Field Survey, 2020

In general, while the farmers themselves take land-use decisions, more men (52 per cent) than women (24 per cent) take their own decisions. Women also mainly defer land-use decisions to their husbands. More older people (63 per cent) than youth (13 per cent) take land use decisions themselves ( see table 6)

**Table 6: Decision on Land Use**

Variables	Decision on Land Use					
	Myself	Men in the household	Women in the household	Spouse	Joint decision with spouse	Parent
Female	24	2	1	16	2	1
Male	52	1	-	-	1	2
<b>Total</b>	<b>76</b>	<b>3</b>	<b>1</b>	<b>16</b>	<b>3</b>	<b>3</b>
Youth	13	1	-	5	2	1
Adults	63	2	1	11	2	-
<b>Total</b>	<b>76</b>	<b>3</b>	<b>1</b>	<b>16</b>	<b>4</b>	<b>1</b>

Source: IITA & Rainforest Alliance Farmers Field Survey, 2020

While almost all male cocoa farmers made decisions on land use, an equal number of female cocoa farmers made the decisions themselves or their husbands made such decisions. This was similar for younger

farmers. Older farmers took most of the decisions while for a few, spouses took those decisions. Some women indicated that they took those decisions with their husbands. Joint decision making was lower for older farmers. The trend was similar for younger farmers. Many older farmers did not make joint decisions. Decision making on cocoa production followed similar gender and generational trends.

Input use in cocoa production was highly gendered and also class-based. While in general, 75 per cent of farmers rated themselves as having used input to a high extent, a half (50 per cent) of male respondents used input to a high extent than women (25 per cent). In terms of age, only a few young cocoa farmers (3 per cent) used input to a high extent compared with older farmers (72 per cent) (See table 7)

**Table 7: Input Use in Cocoa Production and Access to Information**

Variables	Decision on Land Use (%)			
	High Extent	Medium Extent	Small Extent	No Input
Female	25	6	12	2
Male	50	2	1	2
<b>Total</b>	<b>75</b>	<b>8</b>	<b>13</b>	<b>4</b>
Youth	3	6	5	1
Adults	72	2	11	3
<b>Total</b>	<b>75</b>	<b>8</b>	<b>16</b>	<b>4</b>
Access to cocoa production information				
Female	29	5	9	2
Male	44	4	5	2
<b>Total</b>	<b>73</b>	<b>9</b>	<b>14</b>	<b>4</b>
Youth	13	3	5	1
Adults	59	6	9	3
<b>Total</b>	<b>73</b>	<b>9</b>	<b>14</b>	<b>5</b>

Source: IITA & Rainforest Alliance Farmers Field Survey, 2020

In general, 73 per cent of farmers had access to a high extent of cocoa production information. However, compared to men (44 per cent), a lower percentage of women (29 per cent) reported having access to cocoa production information. In terms of age, older farmers (59 per cent) had access to cocoa production information than youth (13 per cent) (see table 7).

Women’s control of decision making is a contentious sociocultural issue. Sixty-five per cent of women agreed that women should have more control of cocoa production. More female adults (51 per cent) than female youth (15 per cent) favoured women’s control over cocoa production. Only over a half (53 per cent) of males affirmed that women should have control over cocoa production. More adult males than male youth agreed that women should take control of cocoa production (see table 8)

**Table 8: Women's Control of Cocoa Production**

Category	Should women have more control over cocoa productions? (%)		
	Yes	No	Total
All Females	2	2	2
Female Youth	1	1	1
Female Adults	1	1	1
<b>Total</b>	<b>3</b>	<b>3</b>	<b>3</b>
All Males	1	1	1
Male Youth	2	2	2
Male Adults	3	3	3
<b>Total</b>	<b>3</b>	<b>3</b>	<b>3</b>

Source: IITA & Rainforest Alliance Farmers Field Survey, 2020

Respondents who rejected the question on women’s control over cocoa production cited the labour intensity of cocoa production as a reason. A few of them thought that women were to support the household and not to control resources for themselves while some said that married women should be catered for by their husbands and therefore, they do not need to control cocoa production. Others cited women’s misuse of resources as a reason, lack of farm management skills and yet others thought that women would compete with men should they have control of cocoa production. For some, if women take control of cocoa production, they would take over the farms from men.

The farmers who agreed that women should be given the opportunity to control cocoa production suggested that women are hardworking, and work faster to establish a farm and also increase productivity. Another major reason was that when women control the farm, they will be able to support the households, especially in times of socio-economic shocks. A few others thought that women have the rights to secure their own future and therefore must be given the opportunity to control their farms. Yet others maintained that women must have control over cocoa



production since they are good decision-makers and they have good management skills. However, some participants felt that women needed more gender-sensitive capacity building programmes to sharpen their cocoa management skills. They however did not state what these should be.

In terms of actual decision making on cocoa production, more men (51 per cent) than women (21 per cent) took decisions themselves. More women (20 per cent) reported that their husbands took cocoa production decisions while many older farmers (61 per cent) also took some decisions themselves (table 9).

**Table 9: Cocoa Production Decision Making**

Category	Decision Making on Cocoa Production			
	Myself	Men in the household	Spouse	Other
Female	22	3	20	1
Male	51	2	2	1
<b>Total</b>	<b>73</b>	<b>5</b>	<b>22</b>	<b>2</b>
Youth	23	3	8	1
Adult	61	2	14	1
<b>Total</b>	<b>74</b>	<b>5</b>	<b>22</b>	<b>2</b>

Source: IITA & Rainforest Alliance Farmers Field Survey, 2020

### 5.1 Cocoa Production: Gender, Class and Generation

Land is an important factor in agricultural production. In general, women in all communities owned smaller tracts of land than men. It is also important to note that some youth-owned bigger lands than women. For instance, in Sompre, a community in the Cope Climatic Zone, while the average land size for youth in the FGD was 7.3 acres, that for women was 3.2 acres. In general, the smaller the land, the more likely it would entirely be used for cocoa production. This explains why women and youth have the same average lands and lands under cocoa production. Men on the other hand had surplus lands used for other crops production or left to fallow. The trend was similar across both climatic zones.

### 5.2 Gender Based Segregation of Cocoa Related Activities

Respondents reported sixteen cocoa related activities of which ten are carried out regardless of the sex of the farmer (see table 10). The remaining cocoa related tasks cocoa such as cooking for labourers,

nursery preparation and maintenance, pesticide application, spraying and transportation of cocoa beans are gendered.

**Table 10: Gender and Cocoa Related Activities**

Activity	Sex
Planning cocoa production	♀♂
Cooking for farmers and laborers	♀
Preparing nursery	♀
Land Preparation	♀♂
Planting	♀♂
Weeding	♀♂
Pruning	♀♂
Pesticide application	♂
Spraying	♂
Fetching water	♀
Harvesting	♀♂
collection and gathering cocoa pods	♀♂
Transporting cocoa pods	♀♂
Breaking cocoa pods	♀♂
Transporting cocoa beans	♂
Drying cocoa beans	♀♂

Source: IITA & Rainforest Alliance Farmers Field Survey, 2020

Activities such as cooking for farmers and labourers, preparing and maintaining nurseries and fetching water for spraying are predominantly female tasks. As per societal norms, these roles fit into women’s reproductive duties which are carried out at home. The activities that are considered male tasks predominantly included pesticide application, spraying and transporting cocoa beans. It is important to note the nature of some of these tasks. All three classified female-dominated cocoa activities, namely cooking, fetching water and maintenance of nursery, are done manually and require a lot of time and strength and also come with health implications. On the other hand, activities classified as male-dominated such as pesticide application, spraying and transportation of cocoa beans are to a larger extent mechanised and therefore can be carried out with the aid of machines. Many farmers use knapsack machines for spraying and pesticide application for example. Transportation of cocoa beans from farm to the drying shed can be done by vehicles. In recent times, the agrarian rural areas in Ghana are awash with tricycles popularly known as “Motor King” “Aboboya” “Pragya” and commercial motorbikes which transport

people, goods and farm produce. This notwithstanding, access to these transport services requires economic power and therefore, depending on the wealth base of the farmer, transporting cocoa beans can be done with modern transportation services.

### 5.3 Importance of Cocoa Farming

Farmers gave two main reasons for engaging in cocoa farming. The first is income and livelihood security. Many farmers, regardless of sex and age while engaging in cocoa farming by default, found cocoa farming to be an important livelihood activity which brings income. The second reason for farmers engaging in cocoa farming is to acquire assets. Many farmers saw cocoa production as an asset. They relied on cocoa to build houses, send their children to school, invest in other economic activities, and sponsor both international and internal migration of their children, kin and other relations. These were seen as investments and potential assets when it goes well. Cocoa farms also serve as collateral for loans (see table 13 page 33).

Some researchers have found that in Ghana, some rural youth use their engagement in cocoa production as own account farmers, caretakers, sharecroppers, labourers or unpaid family workers as stepping stones to other bigger aspirations including higher education, apprenticeship, trading and other non-farm economic activities (Anyidoho, Leavy & Asenso-Okyere, 2012). The temporariness of cocoa farming in youth's aspirations hinged on low income earned from the sector which does not compensate for the drudgery associated with cocoa farming. With high hopes for the cocoa crop to deliver income, assets and other investments, the declining cocoa yields attributed to climate change in some cocoa growing areas will have debilitating impacts on families and their aspirations. Farmers expressed worries about the future of cocoa production in the following quotes,

- ✓ “Sometimes depending on the quality of the cocoa pod, one does not get the beans in high quantity and this affects the yield one gets to sell and also income”
- ✓ “My cocoa is always being attacked by diseases and pests so I don't really benefit a lot from it”
- ✓ “one needs to have cocoa since if you don't have it you are worse off and if you have it too you spend more while you will gain little”
- ✓ “Cocoa production is capital intensive especially during the production stage”
- ✓ “Cocoa price is too low. It is not how it should be”
- ✓ “I'm yet to experience an increase in my cocoa yields”

✓ “Cocoa production tasks including hiring labour and transportation are intensive and financially draining but the price we sell it does not correspond with the time and resources invested. The price is too low”

#### 5.4 Gender and Generational Dimensions of Cocoa Production Challenges

Farmers enumerated challenges that they face in their cocoa production activities. These are classified into two broad categories namely health-related problems and resource access challenges. These two are closely intertwined although articulated differently (see table 12)

**Table 11: Cocoa Production Challenges**

Social Groups	Challenges to Cocoa Production Activities					
	Health Problems	Tiredness	Time Constraint	Financial Resource Constraint	Lack of PPE	Long distance in fetching water
Female	✓	✓	✓			✓
Male	✓	✓	✓	✓	✓	
Youth	✓	✓	✓	✓		
Old	✓	✓	✓	✓		

Source: IITA & Rainforest Alliance Farmers Field Survey, 2020

In general, farmers regardless of age and sex indicated that cocoa production has a toll on their health. It was noted that most cocoa production tasks are manually intensive and physically exhausting including aspects that require machinery still demanding a certain level of manual labour. Farmers reported bodily pains such as back and joint pains. In addition, due to its manual nature, many farmers reported tiredness as one of the key challenges that they face in cocoa production. Tiredness is also linked to health problems.

Access to productive resources was also a crucial challenge affecting cocoa farmers. Most farmers reported the labour intensiveness of cocoa production and how it affected their time. The time impact of cocoa production means that farmers do not have adequate time to engage in other economic and social activities. In addition to the manual production features of cocoa production, climate variability also poses additional time burdens on cocoa farmers. For instance, cocoa farmers reported cocoa farms getting burnt due to drier conditions which required replanting. In times of low rainfall, constant watering of nursery and young cocoa plants are necessary to ensure the survival of

the plants. The time constraint challenge is important to note especially when due to climate change, low investment in cocoa production by the government and low extension services, cocoa yields are declining. This decline in cocoa production affects income which necessitates on-farm and off-farm livelihood diversification strategies.

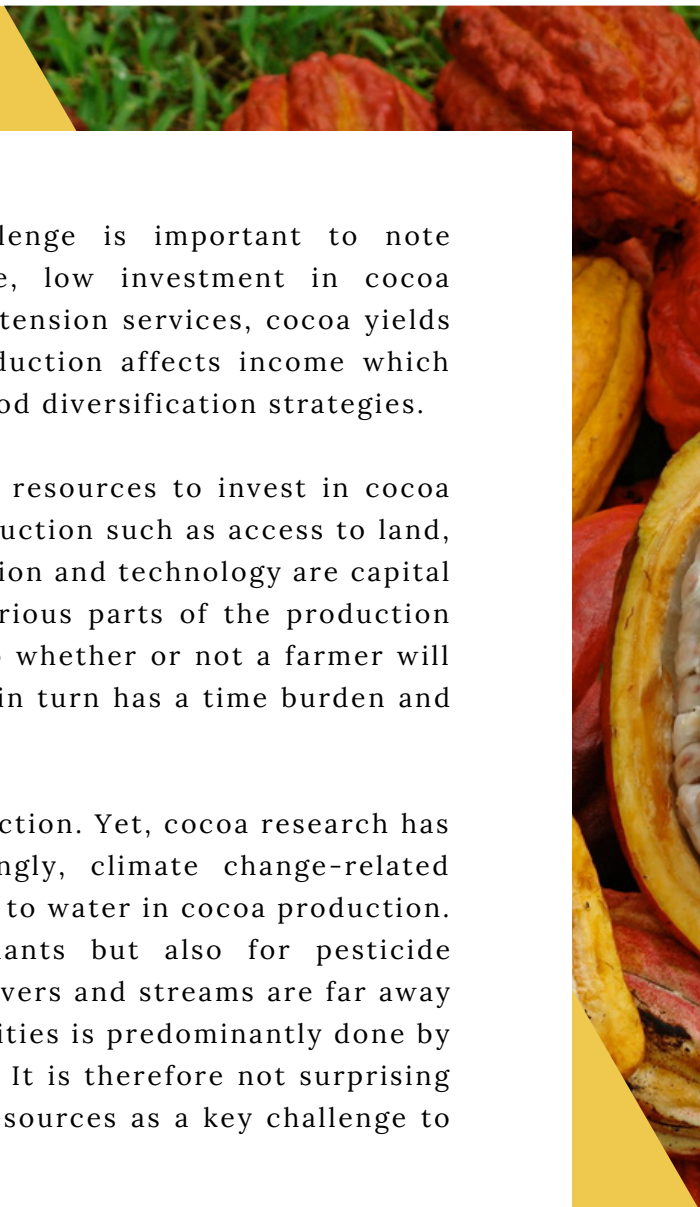
Most farmers reported a lack of financial resources to invest in cocoa production. Many activities in cocoa production such as access to land, labour, input, extension services, information and technology are capital dependent and intensive. This affects various parts of the production from the size of land to cultivation and to whether or not a farmer will engage paid labour or family labour. This in turn has a time burden and health consequences for the farmers.

Water is an important part of cocoa production. Yet, cocoa research has majorly focused on land. Also, intriguingly, climate change-related research in cocoa cursorily centres access to water in cocoa production. Water is required not only for the plants but also for pesticide application. Yet, access to water points, rivers and streams are far away from farms. Fetching water for these activities is predominantly done by women and this requires intensive labour. It is therefore not surprising that women reported distance to water resources as a key challenge to cocoa production.

Safety in cocoa production is also linked to access to and use of Personal Protective Equipment (PPE). In many cocoa producing areas, it is youth groups who spray the farms. The state has recruited youth on its mass cocoa spraying flagship programme. Apart from the state-led programmes, youth in communities almost certainly are engaged to spray cocoa farms. Youth reported not having adequate protective equipment in their cocoa related activities. It is important to note that farmers who hire labourers do not feel responsible for their protection and therefore do not provide protective equipment. The traditional labour practices do not recognize this as the responsibility of the farmer. Therefore, youth who are unable to acquire their own PPE are usually exposed to health hazards.

### **5.5 Solutions to Challenges of Cocoa Related Activities**

Farmers proposed a number of solutions that could make cocoa production and agriculture in general worth it (see table 12).



**Table 12: Proposed Solutions to Challenges**

	Solutions to Challenges of cocoa related activities					
Social Groups	Access to free labour	Access to hired labour	Provision of PPE	Financial Support	Medical Care	Support in time management
Female	✓	✓	✓	✓	✓	
Male	✓	✓	✓	✓	✓	✓
Youth	✓	✓	✓			
Old		✓	✓	✓	✓	✓

Source: IITA & Rainforest Alliance Farmers Field Survey, 2020

### 5.5.1 Technology and Labour

Farmers suggested access to machines such as motorized pruners and technologies that will make work easier. While some participants indicated that they can borrow equipment from colleague farmers, there is little security in doing so especially during the farming season when all farmers are busy and require that same equipment. Besides, borrowing from friends also depends on the strength of one's social network. Poorer farmers suggest a social contract with the state will solve some of the problems related to labour. They suggested that they will have to rely on the government's mass spraying programme. Some have resorted to using motorbikes and tricycles, which are relatively unsafe to solve the challenges with transportation and bad roads in the rural communities.

The rising cost of labour in farming communities has necessitated reliance and use of family labour. Due to migration and the increasing number of children going to school, family labour is not assured. Farmers suggested a need to access non-economic labour, especially from their social networks. Cocoa cooperatives in communities can be repurposed to harness exchange labour to lessen the burden of high labour cost and the decreasing availability of unpaid family labour.

Personal Protective Equipment is an essential resource for agricultural production. Injuries, accidents and health problems are common in agrarian communities. Farmers recommend the provision of PPE and other tools that reduce drudgery. PPE can be supplied at subsidized cost or supplied freely so that farmers can acquire them for themselves and their labourers.

### **5.5.2 Agricultural Credit**

Access to cheap and farmer tailored credit facilities are unavailable in many rural areas. In cocoa-growing areas, in particular, this lack of finance is the reason usurious capital is common and many farmers remain highly indebted. Farmers suggested that the government, Licensed Buying Companies (LBC)s and financial institutions create a special vehicle for farmers, especially those in cocoa farming.

### **5.5.3 Access to Input**

Farmers have suggested that Licensed Buying Companies (LBCs) that benefit from the cocoa value chain should work to make agro-ecologically sound inputs available and affordable to farmers. These include insecticides and pesticides. Similarly, agricultural agencies and Municipal, Metropolitan and District Assemblies (MMDAs) in cocoa-growing areas must ensure that only approved agrochemicals are sent to rural areas. This is important because the illiteracy rate is high in rural agrarian areas and therefore, this quality check on chemicals must be treated with urgency. In addition, farmers must be supported with management practices especially pest control. Acquiring agrochemicals alone is not enough. Farm management training programmes must include training on the safe handling of and proper application of agrochemicals.

### **5.5.4 Access to Agricultural Extension Services**

Lack of access to and inadequate extension services are some of the key challenges reported by women, youth and poorer farmers. Farmers suggested that extension activities in the communities should be intensified and expanded to communities where extension is lacking. While some farmers with social connection are able to communicate with extension officers directly, the option is not available to all farmers. Farmers must receive timely and gender-sensitive training in agricultural management practices.

### **5.5.5 Provision of Social Amenities**

Women suggested that provision of water in the communities and on the farm is important in reducing the reproductive and productive work burdens. In many communities, the water source is removed from the communities and women have to trek several hours to secure water for the home and for use on the farm.

### **5.5.6 Coping with Climate Change**

Climate variability affects crop production and farmers' perception of the changes in climate affect their farm management practices especially in terms of tree retention (Ameyaw, Ettl, Leissle, & Anim-

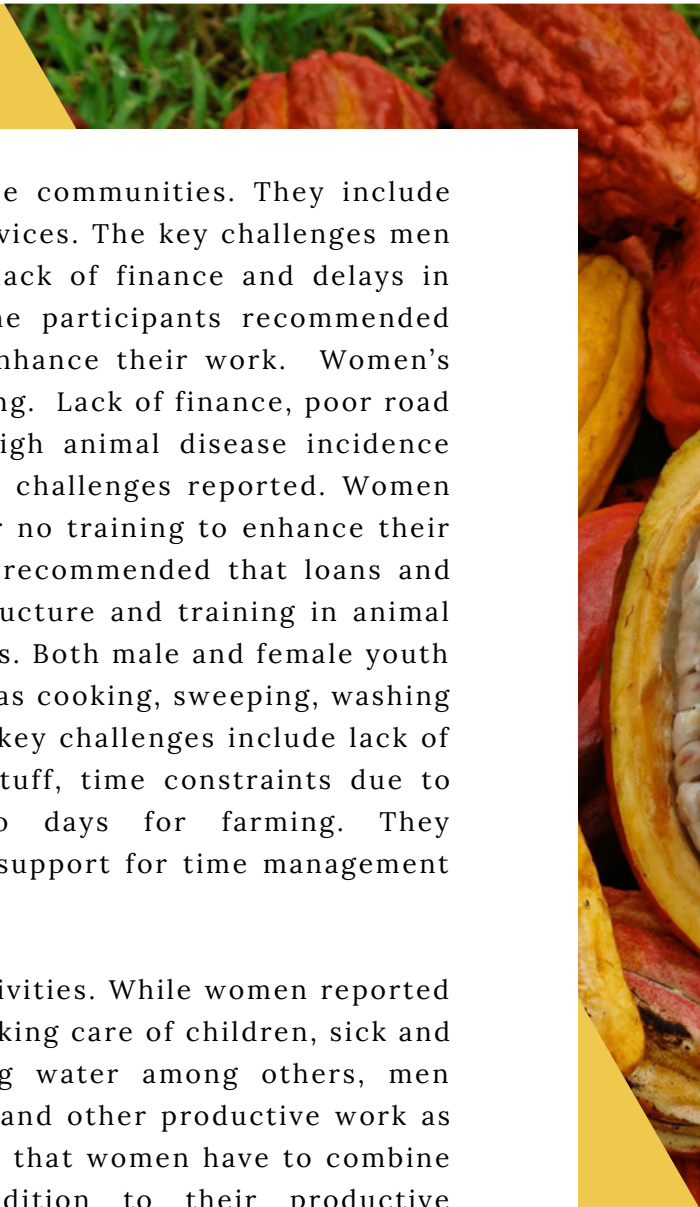
The health of farmers is important for sustainable cocoa farming. The health problems are related to the labour demand and nature of agriculture production in general and cocoa production in particular. Farmers suggested that good food will improve their health conditions. This requires some level of food self-sufficiency. This means that farmers must produce some quantity of food they consume throughout the year. However, it is important to note that food production declines as cocoa production matures in many communities which causes seasonal food shortages. It is therefore imperative for the campaign to grow more food in cocoa-producing areas to be intensified or launched. This campaign must also include the promotion of healthy eating and lifestyle. Farmers need to be healthy to produce cocoa, other cash crops and food crops. Women and older farmers suggested medical insurance for farmers which is designed in a way that promotes equitable access to medical services

## **6. Daily Activities and Challenges**

Men reported their activities like gardening, provision of housekeeping money and support in taking care of children. Some challenges they face with these were harsh weather conditions, inadequate income and mismanagement of housekeeping money by wives and other female relations. Also, men complained about women attempting to shift childcare responsibility completely to them. To mitigate these challenges, men recommended going to the market with the women to purchase items to bring greater accountability and transparency.

Women commit a lot of time to reproductive work and trading. They face health challenges, financial difficulties and capital need for trade. They recommended that NGOs give loans to rural communities. Also, for their trading to succeed, they have to stop selling their products on credit as customer indebtedness and delays in payment for goods are prevalent in the communities. Youth in the communities engage in animal rearing, labour services, artisanal mining and other types of work. Since youth face challenges in animal rearing due to low levels of knowledge on pest and disease management, training is recommended. Wages are often delayed; they also lack PPEs and they often have health problems such as bodily pains. Other key challenges include a lack of raw materials and lack of capital. They recommended among others timely monthly salary payment, provision of PPEs and mining equipment, easy access to raw materials and access to loans.





Alternative livelihoods are common in the communities. They include palm wine tapping, trading and labour services. The key challenges men face in engaging in these activities are lack of finance and delays in salary payments for labour services. The participants recommended access to loan facilities from NGOs to enhance their work. Women's activities include trading and animal rearing. Lack of finance, poor road infrastructure, customer indebtedness, high animal disease incidence and lack of shelter were some of the key challenges reported. Women who rear animals reported having little or no training to enhance their knowledge in keeping the animals. It is recommended that loans and government support, proper road infrastructure and training in animal rearing are required to enhance livelihoods. Both male and female youth mainly engage in domestic activities such as cooking, sweeping, washing utensils, fetching water and farming. The key challenges include lack of finance for washing detergent and foodstuff, time constraints due to reproductive work, fatigue and taboo days for farming. They recommended money to purchase needs, support for time management and support from families.

Daily activities also affect agricultural activities. While women reported reproductive activities such as cooking, taking care of children, sick and elderly household members and fetching water among others, men reported farming, trading, artisanal work and other productive work as their main daily activities. Due to the fact that women have to combine multiple reproductive activities in addition to their productive activities, they complained about the lack of household labour to support them. During FGD in one of the cope communities, male participants complained about women shifting household responsibility, especially child care to them and this is a constraint on their time. Many children are in school and rural households no longer have the unrestricted access to children's labour as it was in the past. This, coupled with the fact that husbands and elderly men hardly take reproductive responsibilities, affects women's cocoa production. A female respondent said, "the challenge is when the children are not there and I still have to muster the energy to undertake these tasks alone". Women also complained about a lack of reproductive labour-saving technologies such as washing machines. Other farmers complained about poor roads, unavailability of water for food crop production in the dry season, labour access challenges and frequent accidents on the farm from cutlass use and pruning. Others complained about the insecurity challenges in the rural landscape. In particular, armed robbery is rampant in some communities. Yet, others complained about the lack of proper storage spaces.

Access to labour-saving technology is one of the ways farmers hoped to solve their labour, time burden and frequent accident and injury challenges. They mentioned equipment that can pump water to the farm, provision of water to households, provision of good machines for cocoa related activities, and good protective clothing and equipment. The communities also recommended the provision of good roads, easy access to customary lands, technology that can increase yields, support for alternative livelihood activities, and technology for harvesting rainwater on the farm and in the household, access to information on pest and disease control and actual availability of chemicals to solve the various problems on the farms.

## 7. Conclusion

Agriculture and cocoa production are important livelihood activities in many rural communities. In the cocoa belt, many farmers produce food crops on smaller plots while cocoa is seen as the crop to generate income to be invested in other businesses and for asset acquisition. However, there are location, gender and generational differences in the ownership, control and access to productive resources such as land, labour, extension services and farm input use among others. In terms of location. Older men owned bigger lands than women and youth. Many farmers access cocoa lands through inheritance or sharecropping. Women and youth, in particular, cultivate on lands they have inherited.

There are also differences in labour use and access. Most male farmers use hired labour, their own labour or that of wives. Women also rely on their labour and that of their husbands. Women use hired labour parsimoniously. This is due to the smaller nature of their plots and lack of money to pay for hired labour. Youth mainly use their own labour and to a lesser extent that of their spouses. Access to input and extension services has a similar trend in terms of gender and generation as many women and youth reported not receiving low farm management training.

In many instances, farmers reported declining yields in cocoa production. This has implications for their income, other livelihoods and investment in assets. Climate change, disease and pest infections are blamed for declining cocoa yields. Youth, in particular, found cocoa production as an important livelihood activity, however, they are not willing to invest resources in it due to the high risks involved. For older people, climate change also means continuous expansion of cocoa farms to increase yields. And this can affect land availability to other farmers especially women and youth.

Cocoa production is labour intensive and farmers reported health problems. Similarly, the increasing use of chemicals in cocoa production affects the health of farmers, especially youth who undertake tasks such as spraying. Despite the health-related problems associated with chemical use of farms, many farmers reported not having access to PPE which are unavailable or expensive to access.

Lands dedicated to food production are small and only farmers with bigger land sizes are likely to invest in food crop production. This means that women and youth use almost all their lands for cocoa production which has implications for livelihood diversification and food security. With climate change affecting cocoa production, farmers require alternative non-farm and on-farm livelihoods. Meanwhile, women control the processing and marketing of food crops. The sustainability of this will depend largely on the expansion of lands under food crop production and the use of smart agricultural practices that will increase yields even on smaller plots.

Men control the decision-making space in the home especially with decisions pertaining to cocoa production and the male produced food crops. Women on the other hand control decision making in processing and marketing. In the study communities, there are many farmers, especially youth who believe that women should not be allowed to take decisions on cocoa production because women are “dependent” and also cocoa production is “tedious”. These gender stereotypes are common in all the research communities. At the same time, state and non-state actor’s programmes that share information on cocoa production target men and those with bigger cocoa farms. With the sociocultural practices that keep women at bay when it comes to decision making, it is clear from the foregoing that formal and informal information that target men do not reach women in a way that will be useful to them.

## **8. Recommendations**

Recommendation for programming is structured in three main dimensions namely individual skills and capacities, social relations and social structure.

### **8.1 Building Individual Capacities**

Women should be actively integrated into extension and advisory services that are sensitive to their respective goals, needs and priorities. Extension and advisory services should view extension work beyond services that reach women and men and move beyond the mere presence of women in meetings. They should function as spaces in

which men, women and youth co-operate to acquire and co-create knowledge and learnings with extension workers. Extension and advisory services should be conscious of the intersectionality of men's and women's identities such as class, age, marital status and migration status and effectively tailor extension services to these diverse groups of people.

For women especially to be able to make the necessary first step in CSC, that is, weeding + pruning (formation + sanitary) + cultural (pest and disease) management and the second step of fungicide and pesticide application, there is the need to target the labour constraints they face. These activities are labour intensive and women often rely on hired labour or husband's labour to perform these. Interventions should therefore make a conscious effort to directly provide labour through the use of labour groups for instance, for women. This is particularly necessary for poor women and or widows who cannot afford hired labour or have access to the labour of husbands.

Programmes that are designed to increase access to credit, motorised sprayers, and agrochemicals should deliberately target and prioritise women and youth who relatively have fewer resources to access these themselves.

Interventions should consciously promote and encourage women and the youth to use portions of their lands to cultivate additional food crops especially maize and plantain. These are valuable as food and cash crops and contribute to capital formation and augment incomes from cocoa. Alternative on-farm livelihoods can generate additional incomes that can be invested in the farm.

## **8.2 Changing Social Relations**

Gender and generational norms around the division of labour between and within productive and reproductive roles are seemingly entrenched and this results in inequalities in access to, ownership of and control over land, labour and decision-making. Changing land, labour and decision-making relations, therefore, hinge on the adoption of strategies that foster locally-driven shifts in underlying gender and generational norms and associated division of labour at the household and community levels. This requires integrating men, women and youth into sensitization programmes that recognize the contribution of women and youth in cocoa production and the importance of gender and generational equality in access to, use and control over such resources for the household and community benefits. Beyond this sensitization,

programmes should foster the opportunity for men, women and youth to co-create the required pathways to bring about transformation in existing social relations and gender norms.

## **8.2 Changing Social Relations**

To effectively integrate women in extension services, for instance, extension services should be gender-aware and make conscious efforts to design opportunities that are sensitive to the timing and locations of meetings and events that can accommodate women's existing care roles and responsibilities in their daily lives. This will ensure that women can be physically present in such meetings.

In local physical structures like farmer groups and co-operatives, women and youth should be able to create, participate in, and flourish in network with other farmers. Interventions should be conscious in recruiting and organising farmers into groups through opinion leaders who are mostly male adults as well as the dominant use of male adult farmers as model farmers in such groups. These practices reinforce gender and generational inequalities in accessing, participating in and flourishing in such groups between men and women and youth.

There is also the need to train more female extension officers as role models and also those that could bring more women's issues to the decision-making table. Similarly, the content of extension training must be gendered. Also, female and male youth must also be integrated into extension training in such a way that there is a trainer of trainers which will ensure the sustainability of farm management practices. This requires models that are bottom-up and which can be taught to others. The cocoa sector has many players such as women, youth, resource-poor farmers, caretakers and other relevant players in the chain must who must be prioritised in the design and implementation of interventions.

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Table 13: Importance of Cocoa Production and Daily Activities

Variables	Category	Climatic Zone							
		Cope				Adjust			
		Female	Male	18 - 34 years	35 years +	Female	Male	18 - 34 years	35 years +
Importance of cocoa farming (Scale of 1-3)	Two	0	0	0	0	1	0	0	1
	Three	3	0	1	2	1	3	1	3
	Four	10	1	1	10	2	3	3	2
	Five	39	47	22	64	35	56	16	75
Reason for importance of cocoa farming	Income	50	45	23	73	39	56	18	75
	Assets	1	1	0	2	1	2	1	2
	Other	1	1	1	1	1	4	10	4
Daily Activities	Domestic chores	34	7	11	30	34	19	13	40
	Economic activities	17	19	9	27	4	4	1	7
	None	1	15	4	12	1	26	4	23
Challenges (Daily activities)	Health problems	19	4	5	18	18	11	5	24
	Tiredness	6	1	1	6	11	0	4	7
	Time constraint	10	3	6	7	4	6	2	8
	Funds	11	21	2	16	0	3	2	1
	None	4	21	8	17	5	28	5	30
	Other	2	5	3	4	1	1	0	2
Strategies (Daily activities)	Assistance	10	4	5	9	10	2	4	8
	Financial support	7	5	3	9	0	3	3	0
	Medical care	17	3	3	17	19	10	4	25
	Time management	1	1	1	1	5	3	2	6
	None	4	21	8	17	5	29	5	30
	Other	12	7	4	15	0	1	0	1

Source: IITA & Rainforest Alliance Farmers Field Survey, 2020

Table 14: Land Preparation by Sex and Age

Food groups	Focus group	Land preparation (%)					
		Myself	Spouse	Hired male labour	Hired female labour	Men in the household	Other
Cassava	Female	12	11	15	-	3	5
	Male	41	-	6	-	3	3
	<b>Total</b>	<b>53</b>	<b>11</b>	<b>21</b>	-	<b>6</b>	<b>8</b>
	Youth	14	5	2	-	1	1
	Adult	39	6	19	-	5	7
	<b>Total</b>	<b>53</b>	<b>11</b>	<b>21</b>	-	<b>6</b>	<b>8</b>
Plantain	Female	14	11	12	-	2	6
	Male	41	1	6	-	2	4
	<b>Total</b>	<b>55</b>	<b>12</b>	<b>18</b>	-	<b>4</b>	<b>10</b>
	Youth	13	5	1	-	1	3
	Adult	42	6	17	-	4	7
	<b>Total</b>	<b>55</b>	<b>11</b>	<b>18</b>	-	<b>5</b>	<b>10</b>
Cocoyam	Female	16	19	18	-	1	6
	Male	35	-	1	-	-	3
	<b>Total</b>	<b>51</b>	<b>19</b>	<b>19</b>	-	<b>1</b>	<b>9</b>
	Youth	10	4	-	-	-	3
	Adult	41	15	19	-	1	6
	<b>Total</b>	<b>51</b>	<b>19</b>	<b>19</b>	-	<b>1</b>	<b>9</b>
Maize	Female	10	7	17	2	5	-
	Male	46	-	7	-	-	5
	<b>Total</b>	<b>56</b>	<b>7</b>	<b>24</b>	<b>2</b>	<b>5</b>	<b>5</b>
	Youth	5	5	2	-	-	-
	Adult	51	2	22	2	5	5
	<b>Total</b>	<b>56</b>	<b>7</b>	<b>24</b>	<b>2</b>	<b>5</b>	<b>5</b>

Source: IITA & Rainforest Alliance Farmers Field Survey, 2020

Table 15: Input Acquisition by Sex and Age

Food groups	Focus group	Acquisition of input (%)				
		Myself	Spouse	Hired male labour	Men in the household	Other
Cassava	Female	27	16	-	1	2
	Male	50	-	-	1	3
	<b>Total</b>	<b>77</b>	<b>16</b>	-	<b>2</b>	<b>5</b>
	Youth	14	6	-	2	1
	Adult	63	10	-	-	4
	<b>Total</b>	<b>77</b>	<b>16</b>	-	<b>2</b>	<b>5</b>
Plantain	Female	26	18	-	1	1
	Male	48	1	2	2	3
	<b>Total</b>	<b>74</b>	<b>19</b>	<b>2</b>	<b>3</b>	<b>4</b>
	Youth	13	7	1	2	1
	Adult	61	11	1	1	3
	<b>Total</b>	<b>74</b>	<b>18</b>	<b>2</b>	<b>3</b>	<b>4</b>
Cocoyam	Female	31	28	-	-	1
	Male	40	-	-	-	-
	<b>Total</b>	<b>71</b>	<b>28</b>	-	-	<b>1</b>
	Youth	9	7	-	-	1
	Adult	62	21	-	-	0
	<b>Total</b>	<b>71</b>	<b>28</b>	-	-	<b>1</b>
Maize	Female	34	7	-	-	2
	Male	54	-	-	2	-
	<b>Total</b>	<b>88</b>	<b>7</b>	-	<b>2</b>	<b>2</b>
	Youth	5	5	-	2	-
	Adult	83	2	-	-	2
	<b>Total</b>	<b>88</b>	<b>7</b>	-	<b>2</b>	<b>2</b>

Source: IITA & Rainforest Alliance Farmers Field Survey, 2020

Table 16: Processing and Value Addition Activities by Sex and Age

Food groups	Focus group	Processing and Value Addition (%)						
		Myself	Spouse	Hired male labour	Hired female labour	Men in the household	Women in the household	Other
Cassava	Female	11	1	-	1	-	-	34
	Male	3	16	-	-	1	1	33
	<b>Total</b>	<b>14</b>	<b>17</b>	-	<b>1</b>	-	-	<b>67</b>
	Youth	2	2	-	-	-	-	19
	Adult	12	15	-	1	1	1	48
	<b>Total</b>	<b>14</b>	<b>17</b>	-	<b>1</b>	<b>1</b>	<b>1</b>	<b>67</b>
Plantain	Female	4	-	-	-	1	-	42
	Male	2	6	1	-	-	1	44
	<b>Total</b>	<b>6</b>	<b>6</b>	<b>1</b>	-	<b>1</b>	<b>1</b>	<b>86</b>
	Youth	1	1	1	-	-	-	21
	Adult	5	5	-	-	1	1	65
	<b>Total</b>	<b>6</b>	<b>6</b>	<b>1</b>	-	<b>1</b>	<b>1</b>	<b>86</b>
Cocoyam	Female	3	1	-	-	-	-	56
	Male	3	4	-	-	-	1	31
	<b>Total</b>	<b>6</b>	<b>5</b>	-	-	-	<b>2</b>	<b>87</b>
	Youth	1	1	-	-	-	-	15
	Adult	5	4	-	-	-	1	72
	<b>Total</b>	<b>6</b>	-	-	-	-	<b>2</b>	<b>87</b>
Maize	Female	24	5	-	-	-	3	10
	Male	2	34	-	-	3	-	17
	<b>Total</b>	<b>26</b>	<b>39</b>	-	-	<b>3</b>	<b>3</b>	<b>27</b>
	Youth	2	-	-	-	3	-	7
	Adult	24	39	-	-	-	3	20
	<b>Total</b>	<b>26</b>	<b>39</b>	-	-	<b>3</b>	<b>3</b>	<b>27</b>

Source: IITA & Rainforest Alliance Farmers Field Survey, 2020

Table 17: Food Crop Marketing by Sex and Age

Food groups	Focus group	Marketing (%)					
		Myself	Spouse	Hired male labour	Hired female labour	Men in the household	Other
Cassava	Female	41	1	-	1	1	2
	Male	18	28	-	-	3	5
	<b>Total</b>	<b>59</b>	<b>29</b>	-	<b>1</b>	<b>4</b>	<b>7</b>
	Youth	15	4	-	1	1	1
	Adult	44	25	-	-	3	6
	<b>Total</b>	<b>59</b>	<b>29</b>	-	<b>1</b>	<b>4</b>	<b>7</b>
Plantain	Female	41	3	-	-	1	1
	Male	20	28	1	-	3	4
	<b>Total</b>	<b>61</b>	<b>31</b>	<b>1</b>	-	<b>4</b>	<b>5</b>
	Youth	16	4	1	-	2	1
	Adult	45	27	-	-	2	4
	<b>Total</b>	<b>61</b>	<b>31</b>	<b>1</b>	-	<b>4</b>	<b>5</b>
Cocoyam	Female	54	3	-	-	-	6
	Male	19	18	-	-	2	3
	<b>Total</b>	<b>73</b>	<b>21</b>	-	-	<b>2</b>	<b>9</b>
	Youth	13	4	-	-	-	3
	Adult	60	17	-	-	2	6
	<b>Total</b>	<b>73</b>	<b>21</b>	-	-	<b>2</b>	<b>9</b>
Maize	Female	34	-	-	-	-	7
	Male	10	39	-	-	3	7
	<b>Total</b>	<b>44</b>	<b>39</b>	-	-	<b>3</b>	<b>14</b>
	Youth	5	2	-	-	3	2
	Adult	39	37	-	-	-	12
	<b>Total</b>	<b>44</b>	<b>39</b>	-	-	<b>3</b>	<b>14</b>

Source: IITA & Rainforest Alliance Farmers Field Survey, 2020

Table 18: Food Crop Decision Making by Sex and Age

Food groups	Focus group	Decision making on Marketing (%)			
		Myself	Spouse	Men in the household	Other
Cassava	Female	38	4	-	3
	Male	38	12	1	2
	<b>Total</b>	<b>76</b>	<b>16</b>	<b>1</b>	<b>5</b>
	Youth	18	2	1	1
	Adult	58	14	-	5
	<b>Total</b>	<b>76</b>	<b>16</b>	<b>1</b>	<b>6</b>
Plantain	Female	39	4	-	2
	Male	36	15	1	3
	<b>Total</b>	<b>75</b>	<b>19</b>	<b>1</b>	<b>5</b>
	Youth	19	2	1	1
	Adult	56	17	-	4
	<b>Total</b>	<b>75</b>	<b>19</b>	<b>1</b>	<b>5</b>
Cocoyam	Female	49	9	-	3
	Male	28	12	-	-
	<b>Total</b>	<b>77</b>	<b>21</b>	-	<b>3</b>
	Youth	15	3	-	-
	Adult	62	18	-	3
	<b>Total</b>	<b>77</b>	<b>21</b>	-	<b>3</b>
Maize	Female	37	2	-	2
	Male	44	12	2	-
	<b>Total</b>	<b>81</b>	<b>14</b>	<b>2</b>	<b>2</b>
	Youth	8	-	2	2
	Adult	73	15	-	-
	<b>Total</b>	<b>81</b>	<b>15</b>	<b>2</b>	<b>2</b>

Source: IITA & Rainforest Alliance Farmers Field Survey, 2020

Table 19: Income Use Decision Making

Food groups	Focus group	Decision making on how income is used(%)			
		Myself	Spouse	Men in the household	Other
<b>Cassava</b>	Female	36	6	-	3
	Male	36	10	1	6
	<b>Total</b>	<b>72</b>	<b>16</b>	<b>1</b>	<b>9</b>
	Youth	19	2	1	-
	Adult	53	14	-	9
	<b>Total</b>	<b>72</b>	<b>16</b>	<b>1</b>	<b>9</b>
<b>Plantain</b>	Female	33	10	-	2
	Male	35	14	1	5
	<b>Total</b>	<b>68</b>	<b>24</b>	<b>1</b>	<b>7</b>
	Youth	17	4	1	1
	Adult	51	20	-	7
	<b>Total</b>	<b>68</b>	<b>24</b>	<b>1</b>	<b>8</b>
<b>Cocoyam</b>	Female	46	12	-	3
	Male	26	9	-	3
	<b>Total</b>	<b>72</b>	<b>21</b>	-	<b>6</b>
	Youth	13	3	-	-
	Adult	59	18	-	6
	<b>Total</b>	<b>72</b>	<b>21</b>	-	<b>6</b>
<b>Maize</b>	Female	34	5	-	2
	Male	37	7	2	12
	<b>Total</b>	<b>71</b>	<b>12</b>	<b>2</b>	<b>14</b>
	Youth	5	2	2	2
	Adult	66	10	-	12
	<b>Total</b>	<b>71</b>	<b>12</b>	<b>2</b>	<b>14</b>

Source: IITA & Rainforest Alliance Farmers Field Survey, 2020



RESEARCH PROGRAM ON  
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