



**KIT** Royal  
Tropical  
Institute

# **Closing the income gap of cocoa households in Côte d'Ivoire – taking a gender-sensitive household approach**

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This desk study builds heavily on KIT's earlier work (Demystifying the cocoa sector – Chapter 12,13&14; Closing the living income gap), involving Marcelo Tyszler and Roger Bymolt as key authors.<sup>1</sup>

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We are also grateful to the Living Income Community of Practice, in particular Adam Romo, who organized a webinar on Living Income and Gender, allowing us to share and discuss our findings with a broader community.<sup>2</sup>

<sup>1</sup> Bymolt, R., Laven, A., Tyszler, M. (2018) Demystifying the cocoa sector in Ghana and Côte d'Ivoire. KIT Royal Tropical Institute; Tyszler, M., Bymolt, R., Laven (2018) Analysis of the income gap of cocoa producing households in Côte d'Ivoire. A KIT Royal Tropical Institute, prepared for the Living Income Community of Practice.

<sup>2</sup> <https://sustainablefoodlab.org/event/living-income-webinar-the-gender-perspective/>

## Executive summary

The living income gap of a typical cocoa growing household in Côte d'Ivoire is about two thirds of the net income required for a decent standard of living. To complement their seasonal income from cocoa, households generally cultivate multiple crops or do other activities such as operating small businesses. However, the earnings are still not enough to cover the costs of living. A particular challenge is the seasonality of cocoa and food production, which means that income and access to food is not continuous throughout the year. In addition, cocoa households' main expenditures (covering education, food and health costs) also fluctuate, which results in periods of particular hardship, particularly from July to September.

Cocoa households usually have different male and female income earners, whereby, depending on the type of household, the men spend usually more time on cocoa production activities and the production of other 'cash crops', while women usually spend more time on food crop production, small businesses and trade.

Earlier studies have demonstrated that it cannot be assumed that men and women in the same household have the same preferences and decision-making power, or that the income is spent for the benefit of the whole household.

In this study, we took a gender-sensitive household approach towards looking at closing the living income gap with the aim of identifying more integrated and tailored solutions that benefit all members of cocoa growing households.

By using a 'gender lens' we noticed the following differences between female-headed versus male-headed households:

- *Household-head*: In most households in Côte d'Ivoire, men self-identified as the head of the household, which typically implies an important role in decision-making and is also often related to ownership over assets such as land, and taking responsibility for farm management.
- *Demographic characteristics*: Female-headed households are generally smaller in terms of household size, around half of the female heads have not received formal education, and female-headed households score very low in terms of dietary diversity. The smaller household size for female-headed households determines their available household labour, cost of living and income.
- *Crop preference*: Cocoa is of less importance for female-headed households vs male-headed households. For female-headed households, cassava is considered to be the most important crop, which generated highest income.
- *Access to resources*: Female-headed households are more constrained in terms of access to land, family labour and they use less inputs. The land size for all crops, as well as for cocoa, is significantly smaller for female-headed households.

An important notion is that female-headed households do not represent female farmers (and male-headed households do not represent male farmers), but rather should be thought of in terms of the household unit.

The distinction between female-headed and male-headed households tends to overlook the fact that households can also be 'co-headed' or that every household has different female and male income earners. Therefore, working towards a living

income requires considering both male and female earners in a cocoa household, and understanding their different preferences, constraints and decision-making power. We identified the following gender differences within cocoa households:

- *Time-investment*: In male-headed cocoa households, men usually spend more time on cocoa production activities and the production of other ‘cash crops’, while women usually spend more time on food crop production, small businesses and trade. Women also spend a lot of time on household activities, comparing to men.
- *Labour-division in cocoa*: Men are more involved in almost all cocoa production activities. Women engage in cocoa production activities much less frequently. In Côte d’Ivoire, the main activity where women play a substantial role in cocoa production is pod breaking, and to a lesser extent planting. Women play an important role in taking-care of the young cocoa farms and cooking for their husbands and labourers that work on the farm.
- *Decision-making*: Being the head of the household is the strongest predictor for decision-making. In Côte d’Ivoire, 90% of male respondents self-identified as the household head, compared to 26% of female respondents. Self-identifying oneself or not as the household head strongly reflects local gender norms. While men take most decisions about cocoa and do the marketing, women tend to have more control over the income they earn with selling food crops and other small businesses. This income tends to be far less than the income that is earned with selling cocoa. So, women tend to have more control over a smaller part of the household income.
- *Access to and control over resources*: Women (in male-headed households) have unequal access to land, which is likely to manifest itself in women participating less in cocoa producer groups, having less access to training and missing out on the opportunity to borrow money from cocoa buyers, and possibly other services.
- *Norms and assumptions*: The traditional view that cocoa is a man’s job, and women are helpers of their husbands reinforce certain division of tasks and the extent to which women ultimately benefit from cocoa production. This contributes to a situation where women are not only more constrained, but also less incentivized, to invest in cocoa production activities as they benefit less from their involvement.

Identifying interventions that help to close the living income gap for the benefit of all members of cocoa households lies at the heart of this study. In identifying actionable strategies, we built heavily on two robust sources and (because of their complementary focus) looked at their overlap. In addition, we reflected on the potential of these interventions for the cocoa sector in Côte d’Ivoire.

We conclude that the promotion of **saving groups** seems relevant for all women (and men) in cocoa growing areas in Côte d’Ivoire.

These saving groups are an alternative for saving at home, which is more risky. Moreover, savings are better than loans, while serving many of the same purposes as loans. A significant advantage of savings over credit is that it does not involve repayment and the risk of indebtedness—important reasons why poor people can and want to save.

Participation in saving groups contributes to income stability. This can help for example, to prevent the need to take out loans, and helps to overcome periods of food insecurity. Savings also help to mitigate shocks. There is robust evidence that savings generates room for making investments.

For married women, evidence suggests that savings increase their decision-making power in the households. A concern is, that this might create tensions in the family, with the risk of domestic violence. Another concern is that married women often do not control the bulk of the income that comes from cocoa (or other cash crops), which makes it difficult for them to save substantial amounts of money on their own.

In considering **financial service provision** for women, it is important not to overemphasize credit. Instead more impact is expected from smart combinations of savings and credit, and financial and non-financial services. In providing women access to such services, gender-specific barriers need to be taken into account, for example collateral requirements, limited education and mobility.

The Village Saving and Loans Associations (VSLA) model, developed by the international NGO CARE, has been adopted by cocoa and chocolate companies. Benefits include increased access to loans, higher level of local investments, women's economic empowerment, community development, and higher enrollment rates in school.

The evidence on **land tenure security** shows clearly that there is a specific need to focus more on women's land and property rights. The evidence suggests a positive relation between women's land rights and increased bargaining power and decision-making. In Côte d'Ivoire, officially, women and men have equal land rights, but we have seen that in practice women have less access to land, with different constraints for women in male- and female-headed households (female-headed household usually own less land, while the land in male-headed households is usually registered in the man's name). The norm is that (if married) men are usually the land owner. At the demise of her husband, or at divorce, women cannot claim rights to their husband's property, unless this was stated in their husband's will. Also a female child can only inherit from her male parent, if he had made a traditional will or a gift to them before his death.

The potential of membership of a **farmer organization** to increase the income of cocoa households and positively impact on women's economic empowerment is substantial. However, there are a number of factors that limit women's active participation in farmer organizations, such as time and money constraints and a lack of decision-making power and poor mobility. In the case of Côte d'Ivoire, another reason why many women do not participate in 'cocoa farmer cooperatives' is that women show relatively little interest in cocoa production. Moreover, usually only one household member is a cooperative member. This is normally the one who is the head of the household, has land registered in his/her name and the one who sells the cocoa to the cooperative, which is generally the man.

While, theoretically, cooperative membership may contribute to women's empowerment by supporting individual agency, and provide women access to knowledge, resources and exchange entitlements, in practice, a cooperative that focuses only on cocoa will only attract female heads of cocoa households. Moreover, only improving the access of cocoa farmers' spouses to farmer organizations will not automatically result in clear benefits, as married women tend to have little control over the income generated by cocoa sales. So, spending more time on cocoa related activities might involve an opportunity cost.

Offering the right mix of interventions is a crucial part of successful **livelihood strategies**. Evidence shows that there is a strong connection between economic and health indicators; access to reproductive health knowledge has been successfully combined with income generation and asset-building, including improving young women's access to loans, savings and markets. There is also a

connection between improved education, health and social opportunities for young women/girls. In addition, there is convincing evidence on the benefits of introducing clean cookstoves, which save a lot of time, improve the health and enhance income-generating opportunities.

Livelihood programs rolled out in cocoa growing communities have focused very much on improving 'cocoa livelihoods', putting emphasis on increasing the income from cocoa. More recently, income diversification has been put on the radar of cocoa livelihood programs, providing more space for male and female farmers to benefit and to look for ways to improve income stability, and resilience.

## 1 Taking a gender-sensitive household approach towards closing the living income gap

*The living income gap of a typical cocoa growing household in Côte d'Ivoire is about two thirds of the net income required for a decent standard of living.*

The Living Income Community of Practice,<sup>3</sup> supported by the German Ministry for Economic Co-Operation and Development (BMZ) and co-hosted by The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), the ISEAL Alliance and the Sustainable Food Lab have calculated the 'Living Income' Benchmarks for the cocoa producing regions in West Africa.

The Living Income Report Rural Côte d'Ivoire (CIRES), has been released under the authorship of Dr Ibrahim Diarra and Dr Yapo N'Guessan.<sup>4</sup> The study was coordinated by GIZ with support from the BMZ, Sustainable Food Lab, ISEAL, Rainforest Alliance (UTZ), Fairtrade International, Lindt Cocoa Foundation, Cargill and Mars.

The Living Income Benchmark studies estimate the net income required for a decent standard of living for a typical family in cocoa growing regions in Côte d'Ivoire. The Benchmark is based on the costs of living in August 2018. In line with other Living Wage studies and Living Income Benchmark studies being carried out, this study's approach is based on the methodology of Martha and Richard Anker, initially developed for waged workers.<sup>5</sup>

The study estimates a Living Income Benchmark in rural cocoa growing areas of Côte d'Ivoire to be USD 5,452 (CFA 3,144,672) per year for a typical family of 2 adults and 4 children. This income should cover costs of food (48%), housing (11%), non-food and non-housing (36%) and include a provision for sustainability and emergencies (5%).<sup>6</sup>

KIT Royal Tropical Institute (KIT) has calculated that a typical cocoa growing household in Côte d'Ivoire earns, on average, USD 2,346 per year, with USD 1,352 net income from cocoa production and sales, for a comparable average family of 3.5 adults and 3.5 children.<sup>7</sup> The estimated income gap in comparison to the Living Income Benchmark is USD 4,172 per year, which is about 64% of the Benchmark value.<sup>8</sup>

For typical cocoa growing households in Côte d'Ivoire, cocoa generates approximately two thirds of the household income. To complement seasonal income from cocoa, households generally cultivate multiple crops or do other activities such as operating small businesses. Households usually have both male and female income earners.

<sup>3</sup> For information about the Living Wage coalition please check <https://www.globallivingwage.org/>

<sup>4</sup> Backstopping was provided by the consultant Michelle Bhattacharyya and Dr Levison Chiwaula from Malawi University. Final report is available at [https://docs.wixstatic.com/ugd/0c5ab3\\_71310ed04c5d4fec8805580ed901c933.pdf](https://docs.wixstatic.com/ugd/0c5ab3_71310ed04c5d4fec8805580ed901c933.pdf)

<sup>5</sup> Tyszler, Bymolt and Laven (2018)

<sup>6</sup> Tyszler, Bymolt and Laven (2018)

<sup>7</sup> Bymolt, Laven and Tyszler (2018)

<sup>8</sup> Tyszler, Bymolt and Laven (2018)

The costs of living depend on both the size and the composition of the household.

Closing the income gap involves a combination of interventions that help to increase the net income from cocoa and from additional livelihoods, and interventions that reduce the costs of living.

Therefore, in this study we take a gender-sensitive household approach, which is sensitive to differences between households in terms of household composition, number of male and female income earners, and decision-making within the household. By using a 'gender lens', we aim to identify more integrated and tailored solutions that benefit all members of cocoa growing households.

#### **Limitations of the study**

The KIT team did not collect additional data for this desk study. Therefore, we are not able to provide any statistically significant data on possible differences between male- and female-headed cocoa households in terms of actual income gap in cocoa growing regions in Côte d'Ivoire.

## 2 Evidence-based and actionable strategies

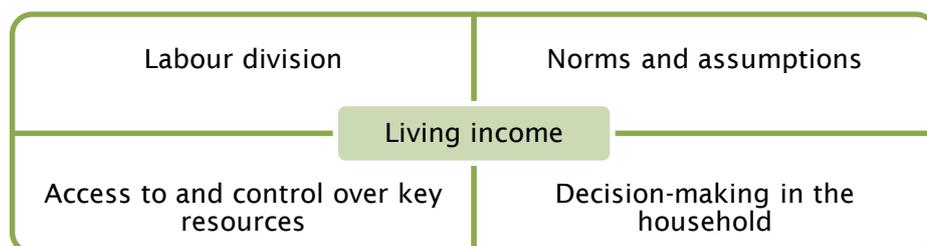
In this desk-study we build on six key publications (Table 1). For recent data on living income we used the Demystifying the cocoa sector study (referred to as KIT study), and the KIT report prepared for the Living Income Community of Practice, with an analysis of the income gap of cocoa producing households in Côte d'Ivoire.<sup>9</sup>

Between November 2016 and March 2017, KIT collected robust quantitative and qualitative data on current income diversification strategies and crop production activities involving 3,045 farming households in cocoa growing areas in Ghana and Côte d'Ivoire.

We complemented KIT's data set, which has a focus on the household level, with the National Survey and Segmentation of Smallholder Households in Côte d'Ivoire, by the Consultative Group to Assist the Poor (CGAP). The CGAP data is based on individual respondents who contribute to household agricultural activities.

As a gender lens, we used the analytical framework developed by Eerdewijk and Danielsen (2015). This framework looks at interlinkages between division of labour, access to and control over resources, household decision-making and norms and assumptions (Figure 1).

Figure 1: Looking at living income from a gender lens<sup>10</sup>



We use data from the KIT study and CGAF to grasp differences between cocoa growing households and between male and female household members.

With the aim of identifying actionable strategies, we use robust evidence from two sources:

1. Evidence of interventions that improve the incomes of small-scale farmers in developing countries, initiated by the Farmer Income Lab (2018)
2. Evidence of interventions that promote women's economic empowerment, published by the United Nation Foundation and the ExxonMobil Foundation (2013).

In this study, we will look at the overlap between these two sets of evidence, and provide a summary for those interventions that contribute both to an increase in income and/or income stability and that contribute to women's economic empowerment.

<sup>9</sup> Tyszler, Bymolt and Laven (2018)

<sup>10</sup> Eerdewijk, A. and Danielsen, K. (2015)

*Table 1: Key publications used in this study*

<b>Title</b>	<b>Authors</b>	<b>Organization</b>	<b>Year</b>
Analysis of the income gap of cocoa producing households in Côte d'Ivoire	Tyszler, M., Bymolt, R., and Laven, A.	KIT Royal Tropical Institute, prepared for the Living Income Community of Practice	2018
Demystifying the cocoa sector in Ghana and Côte d'Ivoire	Bymolt, R., Laven, A., and Tyszler, M.	KIT Royal Tropical Institute	2018
What works to increase smallholders' farm income	Farmer Income Lab	Wageningen University & Dalberg. Commissioned by Mars Incorporated	2018
National Survey and Segmentation of Smallholder Households in Cote d'Ivoire.	Riquet, C., Musiime, D., and C. Marita	Consultative Group to Assist the Poor (CGAP)	2017
Gender matters in farm power – gender dynamics in small-scale mechanization. KIT Amsterdam 2015.	Eerdewijk, A. and Danielsen, K.	KIT Royal Tropical Institute, CYMMIT and CGAIR	2015
A Roadmap for Promoting Women's Economic Empowerment	Buvinić, M., Furst-Nichols, R., and Courey Pryor, E.	United Nations Foundation & the ExxonMobil Foundation	2013

### 3 The income of cocoa households

*You can't earn a decent income by only selling cocoa.*

#### 3.1 Determinants of cocoa income

Cocoa income depends on cocoa price, productivity, land size and production costs, such as labour and inputs (pesticides, fungicides, herbicides, fertilizer, seedlings). In Côte d'Ivoire, since the latest reforms in 2011, the producer price is fixed by the government. Fixed producer prices mean farmers cannot negotiate prices, although premium payments for certified cocoa are possible.<sup>11</sup>

In the short and medium-term, land size may also be considered to be fixed.

Productivity depends, among other things, on the type and fertility of land, as well as on agricultural and post-harvest practices, which may be influenced by training, access to inputs, finance, labour (household, hired, communal), and additional support from actors such as cooperatives, buyers and government agencies.

Production costs comprise mainly input and labour costs.

In the KIT study, the household income from cocoa in Côte d'Ivoire was calculated for all cocoa households. In addition, a cluster analysis was used to group observations on the basis of the sex of the household head and productive cocoa land.<sup>12</sup>

In Côte d'Ivoire, the male-headed, typical is the biggest group (61%), followed by male-headed large (35%). The number of observations within the female-headed analytical group was often found to be too small (4%) for valid statistical analysis.

*Table 2: Calculation of household income from cocoa in Côte d'Ivoire<sup>13</sup>*

	All	Male-headed, typical	Male-headed, large
<b>N</b>		514	198
<b>Revenues</b>			
Productive land (ha/household)	3.5	2.3	7.3
Total production (kg/year/household)	1,222	798	2,407
Land productivity (kg/ha)	349	344	331
Price (USD/kg)	\$1.66	\$1.66	\$1.66
Value of production (USD/year/household)	\$2,029	\$1,325	\$3,996
<b>Costs</b>			

<sup>11</sup> In theory, fixed annual prices are a guarantee to producers regardless of market movements within the year. In 2016, a considerable drop in global cocoa prices was experienced, which resulted in a lowering of the producer price by 36%. Despite this price drop, in modelling cocoa income we consider the price to be fixed.

<sup>12</sup> Based on the cluster analysis, KIT defined three analytical groups: 1) Female-headed: all female-headed cocoa households; 2) Male-headed, typical: all male-headed households with up to 4 ha of productive cocoa land; 3) Male-headed, large: all male-headed household with more than 4 ha of productive cocoa land. For the cluster analysis in Côte d'Ivoire and Ghana, other variables were also considered, but the strong grouping variables were sex of the household head and productive land.

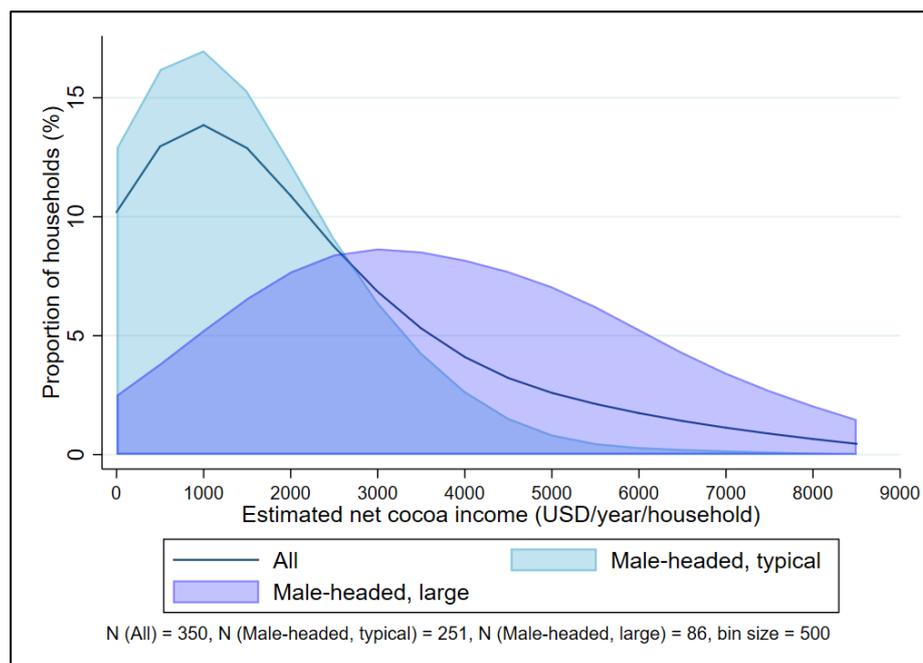
<sup>13</sup> Bymolt, Laven and Tyszler (2018)

Input costs (USD/year/household)	\$71	\$50	\$143
Hired labour costs (USD/year/household)	\$14	\$12	\$24
Total costs (USD/year/household)	\$84	\$60	\$167
<b>Net income</b>			
USD/year/household	\$1,918	\$1,277	\$3,796
CFA/year/household	1,155,190	769,162	2,286,856

*\* Each item (row) is calculated per household and the group average is presented in the table. Therefore, differences can occur from calculating totals based on the averages. This is because of a slight difference in number of observations per item due to removing outliers or missing values that could not be inputted. The net income per year per household is the most relevant and complete number, while other numbers help in the build up to understand the differences between groups.*

Figure 2 shows the distribution of the estimated net annual cocoa income per household in Côte d'Ivoire. Male-headed, large households have higher income but also higher income variability. This suggests that 'increasing land-size' in itself does not guarantee an increase in net cocoa income.

*Figure 2: Distribution of net cocoa income in Côte d'Ivoire (Gaussian kernel smoothed)*



### 3.2 Cocoa generates, on average, two thirds of total household income

In the KIT study, in Côte d'Ivoire, 61% of respondents identified cocoa as the 'most important' or 'second most important' crop for their household (we refer to these households as 'cocoa households').<sup>14</sup> Cassava was the next most frequently reported crop at 25% followed by cashews (15%) and rice (12%). No other crop in Côte d'Ivoire had more than 10% of respondents identifying it as either their most important or second most important crop.

<sup>14</sup> This question is simpler than asking about the 'most profitable crop', 'most produced', or 'most land under each crop'. Asking about 'importance' shows how households value certain crops.

The KIT study suggests that, for Côte d'Ivoire, on average, cocoa generates 66% of total household income for 'cocoa households'. The sales of other crops generates around a quarter of total 'cocoa household' income. Different household members are involved in the sales of cocoa, other crops, livestock (products), or trading.

Male household members are mostly involved in selling cocoa, but also in selling other crops. Female household members are generally more involved in the sales of other crops and other (non-farm) businesses/trading (Table 3).

*Table 3: Income sources and income earners in Côte d'Ivoire<sup>15</sup>*

	Sale of cocoa	Sale of other crops	Sale of livestock or livestock products	Own small business or trading
<b>Estimated contribution to total household income*</b>	66%	24%	3%	3.5%
<b>Average number of income earners per income source (number of persons)</b>	1.46	1.50	0.02	0.27
<b>Detailed composition (number of persons)</b>				
Males, children 15 to 17 years old	0.01	0.01	0.00	0.00
Females, children 15 to 17 years old	0.00	0.00	0.00	0.00
Males, 18 to 29 years old	0.16	0.09	0.00	0.02
Females, 18 to 29 years old	0.00	0.04	0.00	0.03
Males, 30 to 60 years old	0.81	0.49	0.01	0.04
Females, 30 to 60 years old	0.13	0.38	0.00	0.13
Males, over 60 years old	0.16	0.09	0.00	0.00
Females, over 60 years old	0.03	0.03	0.00	0.00

*Note: Based on estimation of respondents in the KIT household survey.*

### 3.3 Estimating total household income is based on assumptions

Non-cocoa income depends on net profit from other crops and on non-farm income. Estimating household income requires knowing the contribution of each member to total household income, as well as all sources of income (number and type), the contribution of each income source to total household income, the net income for each crop produced and sold, and an estimation of the market value of crops grown by the family and consumed in the home.

Gathering all this data is challenging. Usually, a number of assumptions have to be made to calculate household income (Box 3-2).

<sup>15</sup> Bymolt, Laven and Tyszler(2018)

### Box 3-1 Calculating household annual income

The KIT approach towards computing total household annual income was as follows:

- KIT considered only the households which reported knowing their own production figures. (56% in Côte d'Ivoire).
- KIT calculated the total cocoa production (kg/year) per household.
- KIT calculated the total value of production (Local Currency Unit (LCU)/year) per household by applying a fixed price of 1,000 CFA/kg.
- KIT calculated the annual input cash expenses (LCU/year) per household for granular fertilizer, liquid fertilizer, herbicides, pesticides and fungicides.
- For households who reported not doing the activity related to the inputs above, an expense of 0 LCU/year was assumed.
- For households who reported doing the activity related to the inputs above, but for whom the value was missing, the median expenses per ha per household of the male- or female-headed households in each country was used to estimate the annual input cash expenses.
- KIT calculated the annual hired labour expenses (LCU/year) per household for land clearing, land preparation, planting, granular fertilizer application, liquid fertilizer application, manure/compost application, herbicide application, fungicide application, weeding, pruning, harvesting, pod breaking and transporting.
- For households who reported not doing an activity above, or only doing with household or communal labour, a hired labour expense of 0 LCU/year was assumed.
- For households who reported doing a cocoa production activity, but for whom the hired labour expenditure was missing (i.e. unknown), the median expenses per ha per household male- or female-headed households in each country was used to estimate the annual hired labour expenses.
- Net income from cocoa per household was calculated as the value of annual production, minus annual expenses in inputs, minus annual expenses in hired labour.
- Total household income was extrapolated using the estimated contribution of cocoa sales to the total household income.
- Conversions to USD were made using the exchange rate of USD 0.00166 per CFA, as in January 2016.
- Conversions to 2016 International dollars (2016 PPP) were made using the exchange rate of \$ 0.00425 PPP (2016) per CFA.

The calculation of total household income aims to estimate total net cash income earned by the household. This therefore excludes the in-kind value of household production (agriculture and livestock) consumed at home. However, the KIT study did not collect reliable data to make these calculations.

### 3.4 Household expenditures

A living income is the net annual income required for a family in a particular place to afford a decent standard of living for all members of that family. Elements of a decent standard of living include: food, water, housing, education, healthcare, transport, clothing, and other essential needs including provision for unexpected events.<sup>16</sup>

<sup>16</sup> The Living Income Community of Practice. Source <https://www.living-income.com/the-concept>

Expenses that need be covered to reach a basic but decent standard of living are fixed. In Côte d'Ivoire, household income should cover costs of decent food (48%), housing (11%), non-food and non-housing (36%) and include a provision for sustainability and emergencies (5%).<sup>17</sup>

In the KIT study, education-related expenses were ranked by focus group participants most often as the biggest household expenditure, followed by food expenditures. Healthcare was ranked most often as the second highest expenditure in Côte d'Ivoire.<sup>18</sup>

*Table 4: Rank of biggest household expenditures, Côte d'Ivoire<sup>19</sup>*

Rank	Biggest	Second biggest
Education costs		
Food for the household		
Healthcare		

*Note: Only the expenditure items most frequently ranked by focus groups are presented above. The darker the cell, the more times the item was ranked.*

### 3.5 Income instability

The KIT study reported that cocoa households suffer from instability in both income earnings and expenditures.

During focus group discussions in Côte d'Ivoire, participants indicated that expenditures on food were particularly high during June, July and August. In these months, farmers don't have money in their pockets and food is scarcer. Furthermore, Ivorian participants explained that healthcare costs are made throughout the year, but there are certain periods when they are more vulnerable to falling ill. For example, in the dry season from December to March, "the air is dry and dusty, which leads to more health problems". In the rainy season "there is an increase in the number of mosquitoes, which results in a higher incidence of malaria". Education costs were said to be often problematic because of the timing of these payments, which falls between the main and light cocoa seasons.

Additional CGAP data confirms that health and education expenses are not continuous but rather occur a few times a year (Table 5).

*Table 5: Frequency of making health and education expenses within cocoa households, by sex of respondent*

	All	
	Men	Women
Health: medicine, medical payments, hospital charges		
At least once a week	1.1	0.6
At least once a month	14.6	13.5
A few times a year	63.1	55.0
Once a year	7.2	4.7

<sup>17</sup> Anker, R. and M. Anker (2017).

<sup>18</sup> In this ranking exercise, focus group participants gave their perceptions. The expenditures as such were not calculated. Moreover, this leaves out subsistence food production or household labour input as expenditures.

<sup>19</sup> Bymolt, Laven and Tyszler (2018)

According to harvest	0.3	0.2
Never	4.8	14.0
Don't know	9.1	11.9
Education: school fees and educational expenses		
At least once a week	0.2	0.6
At least once a month	8.9	5.5
A few times a year	28.0	17.3
Once a year	23.1	12.5
According to harvest	0.7	0.7
Never	33.6	55.7
Don't know	5.5	7.7
Observations (N)	1,510	1,012

Source: authors calculations based on CGAP data (multiple questionnaire).

CGAP data suggests that weather-related events, followed by pests and diseases are the most significant risk to agricultural activities for their households.

*Table 6: Most significant risk to agricultural activities for households*

All households (%)	
Weather-related events	65.78
Pests / diseases	17.9
Health (own, family, workers)	5.05
Perils and accidents, or theft	4.97
Don't know	2.24
Market prices	2.15
Others	1.9

Source: authors calculations based on CGAP data (single questionnaire).

Like expenditures, cocoa households' income is also not stable. Cocoa is harvested in two seasons: the main and light season (Table 7). The bulk of the household income is earned towards the end of the main season. The main season begins in October and lasts until January (Table 8).

*Table 7: Mean cocoa production (all cocoa land) in main and light seasons 2015-2016 (kg)*

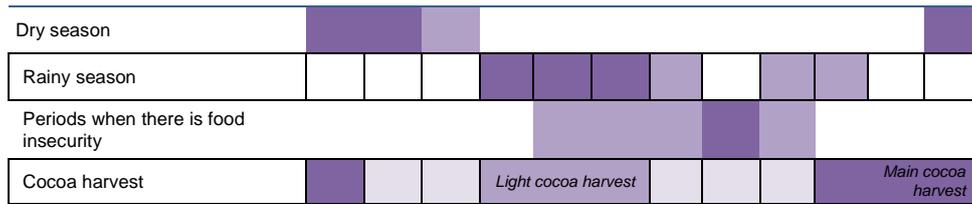
	Côte d'Ivoire		
	Main season	Light season	Year production
mean	934	288	1222
std.error	43	16	55
N	442	442	442

Most crops are harvested before the dry season, and crops are replanted in the rainy season. During the dry season, it becomes more difficult to harvest crops like cassava and rubber.

*Table 8: Seasons in Côte d'Ivoire<sup>20</sup>*

Months	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

<sup>20</sup> Bymolt, Laven and Tyszler (2018)



Source: KIT's interpretation of their focus group data

The large dependence of cocoa households on farm income from both cocoa and other crops contributes to the instability of household incomes. A shortage in income between July and September, in combination with high seasonal food prices, contributes to more hardship in this period. This is also the period when farmers need to pay for their children's education. The KIT study showed that of the cocoa households that borrowed money, 47% used it to cover educational costs.

## 4 Gender differences between households

Cocoa households differ in terms of household composition, number of male and female income earners, and decision-making within the household.

In this chapter, we summarize statistically significant differences between female-headed and male-headed households in Côte d'Ivoire from the KIT study (Chapter 14). After that, we look into differences in terms of female and male income earners.

### 4.1 Female-headed households do not represent female farmers

*Female-headed households typically comprise men, and male-headed households typically comprise women. Therefore, it would not be correct to think of these groups as representing respectively male and female farmers, but rather they should be thought of in terms of the household unit.*

The KIT study confirms the notion that, in marriage, the male normally self-identifies as the household head. In their survey, among 1,500 households in cocoa growing areas in Côte d'Ivoire, 74% of female respondents did not identify as the household head. Among male respondents, 90% said they were the household head.<sup>21</sup>

Doss (2018) argued that making the distinction between female- and male-headed households introduces a possibly spurious comparison between households that differ in many other ways.<sup>22</sup> However, being the head of the household typically implies an important role in decision-making and it is also often related to ownership over assets such as land, and taking responsibility for farm management. In that sense, sex of the household head does reflect, at least partly, gender differences. Even the fact of self-identifying oneself or not as the household head strongly reflects local gender norms.<sup>23</sup>

Female-headed households typically will not have a male husband in the house and have a smaller household size than male-headed households. As expected, the KIT study found differences in marital status between male and female heads. Around three quarters of female heads are single, divorced or widowed. While male heads are usually married or in *concubinage*,<sup>24</sup> most female heads are not. One quarter of female heads reported being married or in *concubinage*, which may suggest they consider themselves to be the co-head.

The average size of a female-headed household is indeed smaller than that of a male-headed household. In Côte d'Ivoire, female-headed households had an average of 5.83 members compared with 7.41 members for male-headed households. Household size determines available household labour, production costs, the cost of living and household income (total and per household member).

The KIT study found a number of other statistically significant differences between female- and male-headed household demographics. For example, substantial difference was observed in educational attainment between female- and male-

<sup>21</sup> Bymolt, Laven and Tyszler (2018).

<sup>22</sup> Doss, C.R. (2018)

<sup>23</sup> Bymolt, Laven and Tyszler (2018)

<sup>24</sup> Concubinage is like cohabitation.

headed households. In Côte d'Ivoire, almost half of female heads reported having attained no formal education, compared to 30% of male heads. Given that the average age of the household head is between 45 and 50, this reflects the lack of educational opportunities afforded to particularly girls 30 or 40 years ago. The KIT study suggests that, for the current generation of girls, the situation is better although not all girls aged 5-14 attend school. In Côte d'Ivoire, 77% of cocoa households reported all girls currently attend school (compared with 80% of boys in the same age category).

In Côte d'Ivoire, female-headed households have a lower average dietary diversity score than male-headed households.<sup>25</sup> In Côte d'Ivoire, only 19% of female-headed households achieved the minimum dietary diversity score, compared with 40% of male-headed households (*highly significant*).<sup>26</sup> However, the number of observations for female-headed households in Côte d'Ivoire was low (n=57), so this is not a clear finding. For those households that do fall below the minimum dietary diversity score, their health, cognitive development and work capacity may be affected.<sup>27</sup>

#### 4.2 Female- and male-headed households prioritize different crops

In Côte d'Ivoire, male-headed households were much more likely to produce cocoa (73%) than female-headed households (36%). Male-headed households were also more likely to produce other cash crops such as coffee and rubber, as well as food crops such as maize, plantain and rice. Female-headed households were slightly more likely to produce cassava, eggplant and chilli (Table 9).

*Table 9: Crops produced, by sex of the household head*

	Côte d'Ivoire female head	Côte d'Ivoire male head	pvalue	sig
Cassava	76%	65%	0.01	***
Chilli	62%	52%	0.02	**
Okra	52%	46%	0.18	
Eggplant	52%	44%	0.04	**
Yam	50%	48%	0.70	
Cocoa	36%	73%	0.00	***
Plantain	35%	47%	0.01	***
Tomatoes	34%	27%	0.05	*
Groundnuts	21%	25%	0.26	
Maize	20%	36%	0.00	***
Cocoyam	18%	19%	0.84	
Cashews	18%	21%	0.46	
Rice	16%	29%	0.00	***
Rubber	10%	20%	0.00	***

<sup>25</sup> The KIT study does not reveal possible reasons for this difference in nutrition status. Explanatory factors might be differences in land size (male-headed households have on average larger plots of land than female-headed households), or differences in crops that male- and female-headed households produce.

<sup>26</sup> For the nutrition questions, following the MDD-W methodology, we only collected responses of female respondents between 15-49 years old. Therefore, these questions on nutrition only allow for a comparison between female heads and women in male-headed households. Some care needs to be taken in the interpretation of these results as the sample size of female heads in Côte d'Ivoire was quite small.

<sup>27</sup> Haas, J. and Brownly, T. (2001)

Other	8%	6%	0.29	
Coffee	7%	15%	0.01	***
Oil palm	4%	7%	0.14	
Beans	3%	6%	0.18	
Peppers	1%	0%	0.35	
Bananas	1%	2%	0.82	
Oranges	1%	0%	0.00	***
Coconut	0%	1%	0.17	
N	157	1,323		

In terms of the ‘most important crop’, in Côte d’Ivoire, only 31% of the female-headed households identified cocoa as their most or second most important crop, compared to 61% of the male-headed households (*highly significant*).

Cassava turns out to be an important crop for female-headed households, 40% of the female-headed households prioritized cassava compared to 23% of the male-headed households (*highly significant*). Other crops that are significantly more important for female-headed households than for male-headed households are chilli and okra. Rubber and coffee are significantly more important for male-headed households (Table 10).

*Table 10: First or second most important crop, by sex of the household*

	Côte d’Ivoire female head	Côte d’Ivoire male head	p-value	sig
Cassava	40%	23%	0	***
Cocoa	31%	65%	0	***
Cashews	15%	15%	0.84	
Chili	15%	7%	0	***
Rice	10%	12%	0.34	
Plantain	8%	5%	0.19	
Groundnuts	7%	5%	0.24	
Yam	7%	8%	0.53	
Okra	6%	2%	0.01	**
Rubber	4%	10%	0.01	**
Maize	4%	6%	0.46	
Eggplant	4%	3%	0.53	
Oil palm	3%	4%	0.48	
Coffee	3%	8%	0.03	**
Tomatoes	2%	3%	0.62	
Cocoyam	1%	0%	0.03	**
Peppers	0%	0%	0.73	
Coconut	0%	0%	0.55	
N	157	1,323	N	

### 4.3 Female-headed households have less access to resources

The KIT study suggests that the narrative ‘women typically don’t own land’ is not accurate for female-headed households. In Côte d’Ivoire, 95% of female-headed households own land, versus 98% of the male-headed households (*significant*).

However, we did observe inequalities in terms of the size of the land cultivated and owned by male- and female-headed households.

Female-headed households own, on average, 4.54 ha of land, compared with 8.16 ha for male-headed households.<sup>28</sup> A regression analysis was conducted on determinants of all land, which showed that, for Côte d'Ivoire, female-headed households cultivate 1.7 ha less than male-headed households, and own around 2.5 ha less.

A regression analysis was also conducted on determinants of cocoa land. For Côte d'Ivoire, as with all land, the analysis suggests that female-headed households produce cocoa on less land than male-headed households, respectively, 3.45 ha and 4.21 ha. However, this finding is not particularly robust due to the very small sample size of female-headed households who grow cocoa in Côte d'Ivoire.

In terms of production costs, in general, households rely on their own household labour for the majority of cocoa activities. However, the KIT study suggests that female-headed households rely more on hired labour than male-headed households, in particular for the application of inputs. This can be partly explained by female-headed households having slightly less household labour available, partly it also has to do with the physical nature of the work. Also, women are normally not involved in the application of inputs because of health reasons. Chapter 5 provides more details on the labour division in cocoa production.

In Côte d'Ivoire, we find no statistically significant differences in yield between male-headed (351 kg/ha) and female-headed households (386 kg/ha). However, this can also be due to the very low number of observations from female-headed households that produce cocoa and who know their land size and total cocoa production. Subsequently, the regression analysis did not bring up the sex of the household head as a variable that significantly correlates with yield.<sup>29</sup>

In Côte d'Ivoire, it was not possible to identify statistical significant differences between female-headed cocoa households and male-headed typical cocoa households in terms of income, mainly because of the low number of female-headed households.<sup>30</sup>

#### **4.4 Cocoa households differ in male and female income earners**

*Households generally have different male and female income earners, whereby the men usually spend more time on cocoa production activities*

<sup>28</sup> We note that our sample size of 'female-headed households in Côte d'Ivoire who report that they know their land size' is quite small.

<sup>29</sup> For Ghana, in the KIT study, this cluster analysis was done and it was noted that female-headed households earn less income from cocoa than male-headed, typical households. For Ghana, the KIT study reported that female-headed households hire more labour than male-headed households, particularly for the application of inputs and for pruning. One reason for this difference is that female-headed households tend to be slightly smaller, and therefore it is likely that they have a greater need for hired labour. Some women may also feel they lack the strength for heavier activities or because certain tasks are more seen as 'men tasks' and hire labourers for these tasks.

<sup>30</sup> In the KIT study, 10% of households are (self-declared) female-headed. About a third of them (48) are cocoa households, and among those, only 13 have non-missing values for household and cocoa income.

*and the production of other ‘cash crops’, while women usually spend more time on food crop production, small businesses and trade.<sup>31</sup>*

In Côte d’Ivoire, it is common for men tend to decide on crops that generate the bulk of the household income.

To give a sense of the sensitivity of findings in terms of comparison to the living income benchmark to the types of households used, especially from a gender perspective, we consider an alternative disaggregation of male-headed households according to the sex of the majority of income earners. Whereby, male-headed households are defined as ‘male maintained’ when the majority of income earners within the households are male, and ‘female maintained’ when the majority of income earners are female, or with an equal number of male and female earners.<sup>32</sup> Note that ‘male maintained’ or ‘female maintained’ does not say anything about the amount of income that male household members versus female household members earn.

The Consultative Group to Assist the Poor (CGAP) data provides insights into the differences in household composition in terms of age, sex and marital status (Table 11). This illustrates how ‘male-headed female maintained’ are the largest group of households, with largest household size, and having the most male and female household members under the age of 17.

*Table 11: Household composition in terms of age, sex and marital status*

	Male-headed male maintained	Male-headed female maintained	Female-headed
Observations	935	1473	114
	37%	58%	5%
Household size	5.9	6.5	5.2
<b>Household age and sex composition</b>			
Males, 0 to 17 years old	1.3	1.8	1.2
Females, 0 to 17 years old	1.2	1.6	1.0
Males, 18 to 29 years old	0.8	0.4	0.5
Females, 18 to 29 years old	0.6	0.6	0.5
Males, 30 to 60 years old	1.0	0.9	0.4
Females, 30 to 60 years old	0.7	1.0	1.1
Males over 60 years old	0.2	0.2	0.1
Females over 60 years old	0.1	0.1	0.4
<b>Household members marital status</b>			
Males, single	2.2	2.1	1.8
Females, single	1.4	1.9	1.6
Males, married/cohabiting	1.1	1.1	0.3
Females, married/cohabiting	1.0	1.3	0.8
Males, divorced/widowed	0.1	0.0	0.0
Females, divorced/widowed	0.1	0.1	0.7

Source: authors calculations based on CGAP data (household questionnaire).

<sup>31</sup> Bymolt, Laven and Tyszler (2018)

<sup>32</sup> Male-maintained households are thus those where there are strictly more male income earners than female.

Using the KIT data, Table 12 shows the average number of income earners per type of household. Female-headed households have 0.3 income earners less than the average households.

The additional distinction between female maintained and male maintained provides insight into the diversity of situations in which women are in a position to contribute to the household income, even within male-headed households, although, as noted, the relative size of their contribution is not known from the available data.

*Table 12: Income earners within cocoa households<sup>33</sup>*

	All	Male-headed male maintained	Male-headed female maintained	Female-headed
Observations	909	430	431	48
		(47%)	(48%)	(5%)
Income earners, all ages				
Income earners (all ages and sex)	2.6	2.5	2.7	2.3
Income earners (all ages, males)	1.3	1.8	1.0	0.4
Income earners (all ages, females)	0.8	0.3	1.3	1.3
Income earners per age group				
Income earners (males, 15 to 17)	0.0	0.0	0.0	0.0
Income earners (females, 15 to 17)	0.0	0.0	0.0	0.0
Income earners (males, 18 to 29)	0.3	0.4	0.1	0.2
Income earners (females, 18 to 29)	0.2	0.1	0.3	0.2
Income earners (males, 30 to 60)	0.9	1.1	0.7	0.2
Income earners (females, 30 to 60)	0.6	0.2	0.9	0.9
Income earners (males, over 60)	0.2	0.2	0.1	0.0
Income earners (females, over 60)	0.1	0.0	0.1	0.2

<sup>33</sup> Bymolt, Laven and Tyszler (2018)

## 5 Gender differences within households

Different studies point out the need to recognize that “households do not act in a unitary manner when making decisions or allocating resources” and “women and men within households do not always have the same preferences or pool their resources”.<sup>34</sup>

With respect to access to and control over benefits, studies point out that gender disparities persist throughout agricultural value chains, and women farmers tend to sell products with less value, while men tend to sell ‘cash crops’.<sup>35</sup> A concern is what happens to the income generated in this way, and who has what say in decisions.<sup>36,37</sup>

### 5.1 Differences in crop preferences

The CGAP data gives information on crops reported be the most important for male and female farmers *within* male- and female-headed cocoa households.

For female members of male-headed cocoa households, cocoa is considered the most important crop for the family by 43.6%, compared to 86.3% of the male farmers. Cassava and rice are important crops for these female farmers, while being perceived as less important for the family by the male members. This illustrates that, within one household, male and female members of the same household are likely to have a different idea on which crops are most important for their family (Table 13).

Female and male members in male-headed households also have differences in opinion about which crops are the most important source of income.

After cocoa, cassava is an important source of income for female members of male-headed households. There are also food crops that are not perceived as important for the income of the household, such as peanuts or eggplants. What stands out is that male members of cocoa household focus primarily on cocoa production (Table 14).

The CGAP data only shows significant differences between male and female members of male-headed households, suggesting more crop diversification within male-headed households, and a certain degree of crop specialization between male and female household members of these households. This might explain part of the differences in nutrition status between female-headed households, and male-headed households (the assumption would be that crop diversification supports a more nutritious diet) as presented in Chapter 4.

*Table 13: Crops reported to be the most important for male and female farmers within one family*

	Most important crop for family					
	Male-headed households			Female-headed households		
	Male	Female	Sig	Male	Female	Sig
Cocoa	86.3	43.6	***	74.1	78.3	

<sup>34</sup> Meinzen-Dick et al. (2011: 4)

<sup>35</sup> Peterman et al. (2011)

<sup>36</sup> Eerdewijk, A. and Danielsen, K. (2015)

<sup>37</sup> Peterman et al. (2011)

Rice	4.5	13.9	***	11.1	10.8
Cassava	2.1	15.4	***	7.4	2.4
Yam	1.6	3.4	***	0.0	4.8
Maize	1.3	3.6	***	0.0	0.0
Peanut	0.0	5.6	***	0.0	0.0
Plantain	1.1	2.7	***	0.0	1.2
Eggplant	0.0	3.5	***	0.0	0.0
Chilies	0.1	1.6	***	0.0	0.0
Others	3.1	6.8	***	7.4	2.4
N	1,428	863		27	83

Source: authors calculations based on CGAP data (multiple questionnaire). Significance from a t-test statistical test of difference in means between two groups. \*\*\*, \*\*, \* indicate significance levels of 1%, 5% and 10%, respectively.

Table 14: Crops reported to be the most important source of income for male and female farmers within one family

	Male-headed households			Female-headed households		
	Male	Female	Sig	Male	Female	Sig
Cocoa	91.9	47.3	***	81.5	85.4	
Rice	1.1	8.0	***	7.4	2.4	
Cassava	1.7	17.6	***	3.7	7.3	
Yam	0.4	1.1	**	0.0	0.0	
Maize	0.5	2.7	***	7.4	0.0	*
Peanut	0.1	6.7	***	0.0	2.4	
Plantain	0.7	2.6	***	0.0	1.2	
Eggplant	0.0	4.9	***	0.0	0.0	
Chilies	0.0	2.7	***	0.0	0.0	
Others	3.6	6.6	***	0.0	1.2	
N	1,400	823		27	82	

Source: authors calculations based on CGAP data (multiple questionnaire). Significance from a t-test statistical test of difference in means between two groups. \*\*\*, \*\*, \* indicate significance levels of 1%, 5% and 10%, respectively.

The additional CGAP data suggests that, within male-headed and female-headed households, there are men and women with different roles and contributions to household income.

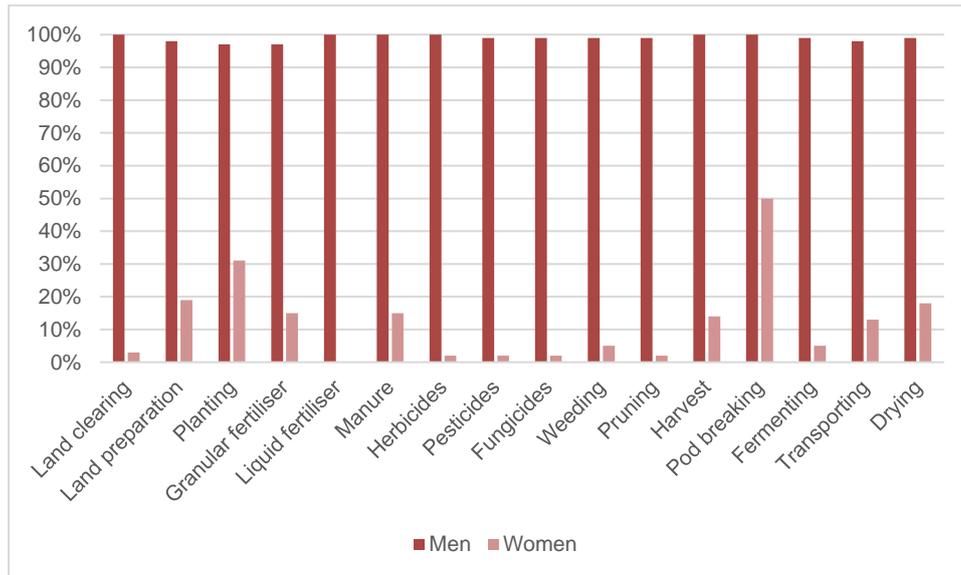
## 5.2 Differences in involvement in cocoa production activities, marketing and decision-making

*Women spend less time on a cocoa farm, are hardly involved in marketing and have little to say about cocoa-related activities*

The KIT study reported that, in Côte d'Ivoire, men have very high participation rates (97-100%) for virtually all cocoa production activities. Women engage in cocoa production activities much less frequently. There are certain activities, such as the application of herbicides, pesticides and fungicides, that women are usually not involved in because of health reasons.

In Côte d'Ivoire, the main activity where women play a substantial role is pod breaking, and to a lesser extent planting (Figure 3).

Figure 3: Who does each cocoa activity – men, women or both, Côte d'Ivoire



The KIT study noticed that perceptions on the level of involvement of women and men in cocoa production activities can depend on the type of household. Female heads of cocoa households report somewhat higher involvement of women in some cocoa production activities, compared to male heads of cocoa households (for example in planting, land preparation, drying and fermentation).<sup>38</sup>

We can say there is a general agreement that, because of the physical nature of the work, cocoa is perceived as a man's job; women are seen as 'helpers'. Usually, men spend more time on a cocoa farm than women.

As 'helpers', women normally take care of the young cocoa farm, which includes weeding and intercropping with food crops, and preparing food for the men and workers.

### 5.2.1 Being the head of the household is the strongest predictor for decision-making

The KIT study suggests that men in male-headed households virtually always make decisions related to cocoa, while only a small proportion of women in the household contribute to such decisions. In female-headed households, women still seem to make cocoa-related decisions most of the time (Table 15).

Likewise, in male-headed households, men almost always sell the cocoa without involvement of women in the household. In female-headed households, usually the women sell the cocoa (Table 16). This suggests that the status of being the household head is the strongest predictor of who sells the cocoa (although sex is

<sup>38</sup> [https://cocoalivelihoods-cocoa.kit.nl/#16\\_production\\_activities](https://cocoalivelihoods-cocoa.kit.nl/#16_production_activities)

also an important predictor of whether or not one is the household head in the first place) and who has decision-making power.

*Table 15: Decision-making on cocoa issues (general), by sex of the household head*

	Côte d'Ivoire female-headed household	Côte d'Ivoire male-headed household	pvalue	sig
Men make decisions	38%	99%	0.00	***
Women make decisions	83%	13%	0.00	***
std.error	6%	1%		
N	47	860		

*Note: the survey question asked was 'When decisions are being made about cocoa, who normally takes the decision? Men, women or both?'*

*Table 16: Decision-making, who sells the cocoa, by sex of the household head*

	Côte d'Ivoire female-headed household	Côte d'Ivoire male-headed household	pvalue	sig
Men sell the cocoa	50%	100%	0.00	***
Women sell the cocoa	72%	1%	0.00	***
std.error	11%	1%		
N	18	487		

*Note: The question asked was 'Who sells the cocoa - men, women or both?'*

For comparable cash or non-food crops in Côte d'Ivoire, such as coffee and rubber, we see similar patterns in terms of decision-making. Generally, it is argued that men usually participate more actively in the different production activities, spend more time on coffee and rubber production, and are involved in the marketing. This is reflected by men having more to say about these crops.

### 5.3 In male-headed households, men own the land and buy the farm equipment

*Ownership of land goes hand-in-hand with decision-making power and control over the income that comes from cultivating the land.*

In Côte d'Ivoire, the Rural Land Law officially granting women rights equal to those of men. But in practice customary law often prevails. In Côte d'Ivoire, in a married situation, men are usually the owners of cocoa land.<sup>39</sup> Women and female children do not automatically inherit land at divorce or the demise of the husband (or father).

In focus group discussions, a number of specific constraints for women to access land came up:

- physical constraints - "women lack strength";
- money constraints - "the crops women grow do not generate sufficient money to buy land";
- the land-inheritance system - "traditionally the heritage of land goes to the son of the family";
- cultural norms - "in a male-headed household, men own the land".

<sup>39</sup> In Côte d'Ivoire, officially since 2011, women are joint heads of the households, and the law no longer makes a distinction between men and women for the acquisition of land.

Because of these specific constraints for women to access land, a more common way for women to access (a small part of) land is through gifting. In focus group discussions, it was argued that, nowadays, women officially can inherit land when the husband/fathers leaves it to her in his will.

Next to land, farm equipment is another important asset for farmers. Examples of mechanized equipment are spraying machines and motorized pruners. In Côte d'Ivoire, within a household, men are usually the owner of equipment.

The equipment was said to be too heavy for women to use and it was argued that women usually do not use this type of equipment (for example, they use a knapsack sprayer, instead of a mist blower); men are the ones who usually spray the farms. Men were also often said to have more money to buy the machine for themselves or the household.

For non-mechanized equipment (such as machetes), it was argued that farm tools are seen as property of the household. Women and men use different tools. It is often the men who buy equipment for their wives.

#### 5.3.1 *Land-ownership facilitates access to services*

Ownership of land is usually put forwards as a requirement to access a farmer organization, training or other services. The African Development Bank (2015) reported that only 11% of women owners or labourers in Ivorian cocoa production participate in agricultural training programs.

The KIT study reported that for Côte d'Ivoire, 22% of male-headed households reported being member of a cocoa producer group, versus 13% of female-headed households. Furthermore, around 20% of male respondents reported having received training, compared with only 5% of female respondents, it confirms the trend that the ones who own land have more access to services.

Access to finance is a challenge for men and women in rural areas in Côte d'Ivoire. In the KIT study, around one quarter of cocoa households indicated borrowing money from any source.

The KIT survey showed that, in practice, the easiest (and preferred) way for cocoa farmers to get access to a small loan is through a local cocoa buyer instead of through banks. In Côte d'Ivoire, farmers also access loans from farmer organizations. We find that collateral is not often required when accessing a loan or, if it is, the value of a household's crops (i.e. cocoa) can be used as a guarantee.

In discussing small loans in the focus group discussions, it came up that usually men may access loans through intermediate buyers (*pisteurs*) and cooperatives, in exchange for their cocoa, while women tend to ask sisters/friends for small loans. This suggests that women are constrained in using cocoa as collateral to access inputs, for example, as they lack decision-making power over cocoa.

Another way of accessing loans is through a Village Saving and Loans Association (VSLA), or other saving groups. Usually, more women than men are participating in these saving schemes.

In focus group discussions, to some extent, there was agreement that in relation to taking a loan, once you are married, you make decisions together, or at least consult each other. Some argued that men need to give their wives permission for taking a loan as, in case of default, the responsibility for paying back lies with men.

#### 5.4 Differences in involvement in food crops

The term 'food crop' usually refers to crops produced mainly for household consumption, but 'food crops' can also be profitably produced and marketed.

In Côte d'Ivoire, a fairly high proportion of respondents reported selling at least some of their staple food crops, including cassava (52%), plantain (38%), maize (34%), yam (27%) and rice (46%). In focus group discussions, particularly women articulated the importance of cassava, both as food and cash crop. The money from cassava comes in regularly and complements the cocoa income, which is particularly welcome during the off-season.

Usually, both men and women are involved in food production, but in different roles, depending also on the crop. The KIT study suggests that, in general, men do the physically more demanding work, such as preparing the land for food production and harvesting, while women are more involved in planting and weeding. Women tend to be also more involved in selling the crops at the (local) markets and or local processing of the food crops (e.g. cassava).

In discussing food crops, it sometimes came up that cassava is a "woman's crop". Cassava production is perceived as easier than cocoa, requiring less labour. Cassava is intercropped with cocoa on young cocoa farms, which are normally managed by women. Men usually support their wives in the preparation of the land and harvesting. Compared to men, women were said to spend more time on food production.

In the focus group discussions, other food crops were not discussed in great detail. On further analysis, it was not certain what some groups meant when they discussed food crops – either small vegetable gardens or other small plots around the homestead, or larger plots used to produce maize, rice and yams on a reasonable scale. In general terms, focus group participants talked about food crops as a responsibility for the women, as "they are supposed to feed the family". What was often mentioned is that food crops are easier to grow, "so the women do it". Additionally, it was argued by men that food crops provide women with a source of income ("so the men let the women do it, while they [the men] do the cash crops"). If required, men would still do land preparation (e.g. drilling holes for plantain) and assist women in planting and harvesting.

The KIT study showed that, in Côte d'Ivoire, women were seen as the ones who normally take the decisions on food crops. Women have greater control over the income that is earned with selling food crops, this income was said to be for household expenditures.

Generally, it was argued that women are more knowledgeable on how to produce and trade food crops ("women ensure a good bargain for a good price"). However, the involvement of men in the marketing of food crops depends on the type of food crop. For certain food crops, such as rice and maize, men are actively involved in marketing.

Occasionally, it was put forward that men are not involved in the marketing of food crops as men "cannot sit behind the goods on the market" or "a man cannot carry food crops on his head". It was also argued that the marketing is "less hard work", and therefore women can do it.

### 5.5 Women’s and men’s involvement in non-farm activities

Although both men and women do ‘business on the side’, women tend to be more actively involved. In focus group discussions, male participants argued that this is partly because women have more time for this, as they are less involved in, for example, cocoa or rubber production.

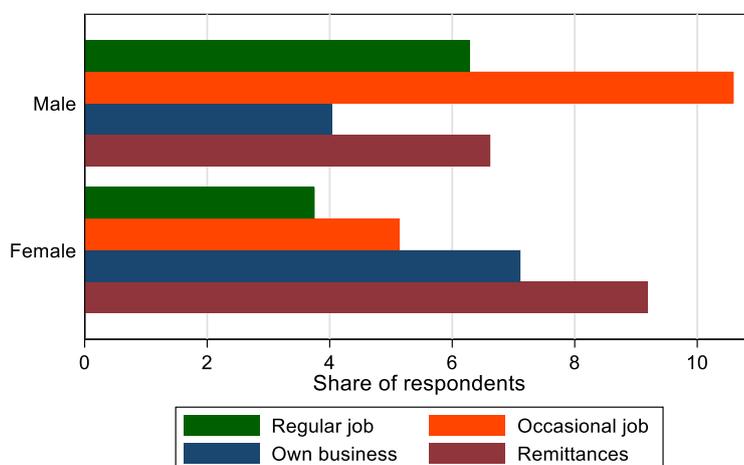
Typical non-farm activities that involve women are trading (e.g. food, cosmetics, second-hand clothes), both in markets and in small shops. Other jobs that were mentioned that particularly involve women were soap-making, sewing, hairdressing and food preparation/catering.

Typical activities for men involve carpentry and masonry, mainly because these jobs are seen as “difficult” and “hard”. A number of other ‘male’ jobs were also mentioned including illegal mining, bicycle repair, tailoring, barbershop, electrical work and taxi driver.

Earlier, we showed that the estimated contribution of selling crops to total household income was 3.5%. The largest group within the households earning income from small businesses/trading are females between 30 and 60 years old.

Additional data from the CGAP smallholder survey shows the emerging differences between men and women, with women being more likely to rely on their own business and on remittances from family and/or friends and men being likely to rely on wages from regular or occasional jobs (Figure 4).

Figure 4: Non-agricultural sources of income for male and female members of cocoa household (%)



Source: authors calculations based on CGAP data.  
 Note: cocoa households are defined as households where cocoa is reported as most important crop by at least one respondent aged >=15.  
 N=2,522; among them, 1,510 are male and 1,012 are female.

In Côte d’Ivoire, it was generally emphasized that men and women decide for themselves when it comes to decisions on small businesses and trade, but first discuss together what is the best way to make some extra money.

Because mainly women are involved in small businesses and trade, it came up in some focus group discussions to be only logical that women make most of the decisions. However, in other groups, it was argued that it is still common that women need permission, or, at least consult their husbands about what they will sell and/or should keep for the household.

## 5.6 Men doing household work is usually not done

*Reproductive work in itself does not generate income, but it is the essential basis of productive work*

Reproductive work is associated with household activities. In the context of rural Côte d'Ivoire, household activities involve cleaning, cooking, sweeping, dish washing, washing clothes, taking care of the children and sending them to school, fetching water, etc.

It has been well documented that reproductive work is primarily undertaken by women, and the weekly hours spent on domestic chores are considerable.<sup>40</sup> In a study by Vargas Hill and Vigneri (2011), the authors calculated the weekly hours spent on domestic chores by gender for Ghana (based on the Ghana Living Standards Survey). According to their calculations, on average, women spend 26 hours per week on domestic chores, while men spend around 10 hours per week. This labour burden may affect women in acquiring more income or education and may also affect them in their well-being.

In Côte d'Ivoire, women are the ones that participate in reproductive work, and allocate most time. Most often, focus group participants said that men do not do anything or help out rarely, except for fetching firewood. Often the explanation that was given was that this division of household tasks is cultural/tradition. It occasionally came up that for a man to be involved in household tasks is seen as feminine, and "other men might mock you".

In Côte d'Ivoire, in the majority of groups, women were seen as the one usually making the decisions related to household activities.

Normally, keeping track of the household budget and buying food for the households are seen as tasks for women. It was said that it is common that men provide their wives with an allowance (or household budget) that can be used for buying food.

CGAP data on frequency of expenses shows that women are more likely to incur grocery expenses compared to men (Table 17).

*Table 17 Frequency of making expenses for grocery within cocoa households, by sex of household head and respondent.*

	All		Male-headed households		Female-headed households	
	Men	Women	Men	Women	Men	Women
At least once a week	55.7	78.0	56.1	78.7	45.8	81.2
At least once a month	17.2	12.4	17.1	11.6	12.5	11.8
A few times a year	5.8	2.9	5.8	2.5	0	3.5
Once a year	0.7	0.2	0.7	0.2	0	0
According to harvest	0.7	0.3	0.8	0.3	0	0
Never	15.6	4.9	15.2	5.4	33.3	2.4
Don't know	4.4	1.4	4.4	1.3	8.3	1.2

<sup>40</sup> <https://eige.europa.eu/thesaurus/terms/1352>

Observations (N)	1,510	1,012	1,443	871	24	85
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Source: authors calculations based on CGAP data (multiple questionnaire).

The CCAF data provides some insights in decision-making regarding household daily expenses in male-headed and female-headed cocoa households (Table 18). The CGAP data illustrates that, with regard to household daily expenses, decision-making is most often done jointly.

*Table 18: Who makes decisions regarding household daily expenses in cocoa households*

	Male-headed household			Female-headed household	
	All	Male respondent	Female respondent	Male respondent	Female respondent
Another household member	14.4	10.0	27.3	33.3	9.2
Respondent and another household member jointly	52.8	52.5	56.9	50.0	38.5
Respondent alone	29.8	35.0	11.3	*16.6	50.8
Don't know	3.0	2.6	4.5	0.0	*1.5
N	1,236	854	311	6	65

Note: \* means only 1 observation. Source: authors calculations based on CGAP data (single questionnaire).

## 6 What works to increase farmers' income and contributes to women's economic empowerment?

In this section we bring in evidence on what works to increase smallholder farmers' income, collected by the Farmer Income Lab (2018)<sup>41</sup> and evidence on what works to promote women's economic empowerment, collected by the United Nations Foundation (UNF) and ExxonMobil (2013).<sup>42</sup> Both studies draw evidence from interventions involving different value chains and different countries. Note that there was no specific focus on cocoa in West-Africa.

The researchers (Wageningen University & Research (WUR) and Dalberg) that conducted the Farmer Income Lab study, scored the evidence on what works to increase smallholder farmers' income, on the basis of four criteria: income impact, scale, sustainability (i.e. durability) and gender. The latter considers the extent to which consideration and focus on women took place during the intervention design period. In total, 16 interventions areas were assessed. Annex 1 shows the scoring criteria and evidence collected by WUR and Dalberg.

The roadmap for women's economic empowerment (WEE) was based on the evidence of interventions that have been proven to have a positive impact on WEE in an effective, replicable way. The overall research question was "What works best to increase women's productivity and earnings in developing countries?". Buvinić, et al. (2013) conducted the study for UNF and ExxonMobil. The authors produced an evidence-based roadmap to guide actions and investments of the private sector and potential public-private partnerships. The roadmap was based on 18 research studies. Annex 2 shows an overview of the evidence collected.

We have selected those interventions that are known to have a positive impact on household income and women's economic empowerment (Table 19). For each of these interventions we provide a summary of the evidence and the analysis done by the respective authors. In separate boxes, we consider the findings in the context of cocoa households in rural Côte d'Ivoire.

*Table 19: The selection of interventions*

<b>Interventions</b>	<i>Evidence from farmer income lab</i>	<i>Evidence from WEE Roadmap</i>
<b><i>Access to savings</i></b>	Saving groups, self-help groups	Saving groups
<b><i>Access to finance</i></b>	Bundled services, mobile phone services	VSLAs, credit, mobile banking
<b><i>Land tenure security</i></b>	Conversion of communal lands, inheritance	Land rights/land titling/information on land rights
<b><i>Farmer organizations</i></b>	Producer collectives	Farmer associations and networks
<b><i>Livelihood approach</i></b>	Poverty graduation	Livelihood programs

<sup>41</sup> [https://www.farmerincomelab.com/Content/Theme/docs/What%20Works\\_FINAL\\_9.19.pdf](https://www.farmerincomelab.com/Content/Theme/docs/What%20Works_FINAL_9.19.pdf)

<sup>42</sup> [http://www.womeneconroadmap.org/sites/default/files/WEE\\_Roadmap\\_Report\\_Final.pdf](http://www.womeneconroadmap.org/sites/default/files/WEE_Roadmap_Report_Final.pdf)

## 6.1 Access to savings

### 6.1.1 Evidence from the Farmer Income Lab: savings are simple, cost-effective and transparent.

Ten Hove (2018) did a quick scan on saving-led group models, such as savings groups (SGs) or self-help groups (SHGs) that are meant to give access to working capital. The basic idea is that a group's collective savings are used to offer loans to fellow group members; a typical group consists of 10-20 members, usually women. Many variations on this concept exist.<sup>43</sup>

#### Impact

- According to the assessment from the Farmer Income Lab, the (potential) scale of saving-led group models is high and coverage tends to expand gradually as groups replicate.
- There is some evidence on impact on incomes; income improvements between 21% and 31% have been measured.
- The sustainability of the intervention is scored as high, as group continuation can be decided upon based on member's needs. For groups that are backed-up by banks, sustainability is more important.
- In terms of gender, the assessment indicates that SHGs can have positive effects on women's economic, social and political empowerment, however, standalone groups may not be enough to achieve these results.
- In terms of breadth of the evidence, the score is low; income turns out to be an uncommon indicator for measuring success of saving groups.

#### Risks and opportunities

The corruption of group leaders was identified as one of the risks involved in saving groups. In the short term, another risk mentioned was an increase in domestic violence because of women's participation in saving-based group models. Women indicated that, in the long term, the benefits might mitigate this adverse consequence.

Important for the living income debate is that saving-groups decrease the vulnerability of households to financial shocks. Moreover, saving-groups are simple, cost-effective and transparent.

### 6.1.2 Evidence presented in the WEE Roadmap: savings work better than credit

There is exist robust evidence on the positive impact of saving groups on women's economic empowerment. This evidence has been based on data from the Gender Asset Gap project, and covers experiences in Ghana, Ecuador and India.<sup>44</sup>

Data-analysis reveals a gender gap, especially in the incidence of formal saving accounts; women having less formal saving accounts than men.

The evidence also reveals a gap between urban and rural women, with rural women having less access to savings than urban women. In Ghana, there has been a rapid growth in the number of savings and loan organizations for the small

<sup>43</sup> Variations include: i) Does or does not explicitly target women with the aim to empower them; ii) With or without a training component (e.g. on financial literacy, entrepreneurial skills and women's rights); (iii) With or without a link to formal finance institutions or to a developmental organization; (iv) With or without time-bound cash-out of the groups' savings, to either each member in turn and/or to all members at the same time.

<sup>44</sup> Doss et al. (2013)

saver, however, most of these organizations are located in towns. It is calculated that 15% of rural women in Ghana have cash savings at home.

### **Impact**

Savings turn out to be a proven way for poor women to accumulate sums of money that can serve many of the same purposes as do loans—consumption smoothing, risk mitigation, or with larger accumulations, investments in business creation or expansion.

A significant advantage of savings over credit is that it does not involve repayment and the risk of indebtedness—important reasons why poor people can and want to save.

Rigorous evaluations found positive effects of savings on expenditures, on women's business investments and on input use and crop yields of men and women. Research also suggests that women savers have more decision-making power.

### **Risks and opportunities**

According to the researchers, women's savings is associated with income they potentially control.

#### *Removing gender specific constraints*

The evidence showed disadvantages in the labour market make it difficult for women to save substantial amounts of money on their own. For example, women in Ghana are said to earn 35% less than men. The gender gap demands for efforts to target women and the specific constraints they face.

#### *Formal saving groups are safer*

It is suggested that formal savings would be safer and more secure than the traditional ways of saving by holding cash or jewelry. Although informal savings groups help women save by providing discipline and group support, they are often riskier than more formal structures.

#### *Simply opening bank accounts is not enough*

Evidence suggests that programs that simply make it easier to open accounts will not necessarily result in increased levels of savings. As it turns out many women have formal savings account but maintain a zero balance; after their earnings are deposited into the account, they withdraw the money to use for regular expenses.

#### *Need for innovative saving products*

The researchers suggest that widening the network of financial institutions, particularly banks, and designing innovative savings products to address the specific needs of poorer households would help in bringing cash and other informal savings into the formal system.

#### *Need for further savings product development research and testing*

Knowing that some women have difficulty saving and that different products may be appealing to different profiles of women, the researchers see an opportunity to invest in further product development research and testing.

The researchers involved in the assessment recommend additional rigorous research to see if the initial positive results of 'commitment savings' on women's economic situation, especially business investment, hold up in other contexts and locations.

*Box 6-1: The potential for saving groups for women in Côte d'Ivoire*

While savings are common for most people in Côte d'Ivoire, research among cocoa farmers points out that, for cocoa farmers, it is less common to put money aside as savings.<sup>45</sup> It is likely that this is linked to the fact that most cocoa farmers remain excluded from traditional banking systems.<sup>46</sup> Of their sample, around one third of farmers claimed to have set money aside in the past year (35%), with around one quarter of farmers saving with a specific goal in mind.

Cash kept at home is the most common way to save, followed by mobile money.

*Mobile money*

Mobile money is being put forward as an equalizing force which is helping women, and other poor people, gain access to financial services. The mobile money account has come to be used as a safe place to store money in addition to send remittances. Mobile money is seen as the alternative for existing banks and microfinance institutions, as these institutions are not meeting their needs.

According to the CGAF financial inclusion insights survey,<sup>47</sup> in 2017, between 34% and 38% of the adult population in Cote d'Ivoire had a mobile money account. However, men are still 65% more likely to have a mobile account than women. In rural areas, around a quarter of adults had a mobile money account, although some of these accounts were inactive.

Most mobile money services still offer 'first generation' products, such as money transfer, airtime top-up and bill payments. Greater account ownership has not translated yet into use of formal savings, credit and insurance products.

*Village Savings and Loans Associations*

The Village Savings and Loans Associations (VSLAs) have been embraced by different cocoa traders and chocolate companies. The VSLA model provides simple savings and loan facilities in communities that do not have easy access to formal financial services, thus equipping whole communities with the necessary resources to save and invest in income-generating activities.

We elaborate on VSLAs under 'Access to finance'.

## 6.2 Access to finance

### 6.2.1 Evidence of the Farmer Income Lab: access to finance to invest in income generating activities

Sopov (2018) describes that, theoretically, access to finance allows farmers to cover production-enhancing technologies and other agriculture lifecycle-related costs at the right time. According to the theory of change, this leads to increased production, which should lead to greater sales and therefore more income.

As a result of better access to finance, farmers could also invest in income generating pursuits beyond primary production to add value to their primary

<sup>45</sup> Commissioned by the Mastercard Foundation and IFC, Lonie et al. (no date) surveyed 1,149 smallholder cocoa farmers who are members of six agricultural cooperatives in central Côte d'Ivoire. The final sample included 7% women cooperative members, while overall cooperative membership was less than 3% female.

<sup>46</sup> <https://www.advansgroup.com/media/news/blog-digital-financial-services-to-boost-the-financial-inclusion-of-cocoa-farmers-in-cote-divoire/>

<sup>47</sup> <https://www.cgaf.org/blog/cote-divoire-financial-inclusion-crossroads>

production. In addition, it would allow for asset building so they could save more which, in turn, allows them to participate in healthy borrowing. Greater assets would allow them to pay less for services (including time savings) and could smooth consumption and improve resilience to shocks.

Greater resilience, value addition, lower costs could increase income and ultimately improve quality of life. Non-income benefits would include becoming empowered through greater privacy, monitoring and control of their resources.

The following gender-specific barriers for accessing finance were identified by the researcher: collateral requirements, high transaction costs, limited education and mobility, social and cultural barriers, and the nature of women's businesses (often concentrated in low-return sectors) limit women's ability to obtain credit.

### **Impact**

- The researcher scored the scale of the impact on income high. Access to finance helps smallholders farmers increase farm productivity, financial stability and food security to enhance life.
- The degree of income increase was scored as medium, based on evidence of a total household income increase of 15%. There was no evidence available on sustainability.
- The potential impact to impact positively on women was scored as high, based on evidence from the Opportunity Bank International Malawi (OIBM), where more than 81% of women clients reported improvements in decision-making power, 58% reported increase income, and 55% reported improvements in livelihoods.

The OIBM started to offer savings strategies that enable illiterate customers who lack official government identification, using fingerprints for identification.

OIBM also initiated inexpensive community branches made from used shipping containers. It turned out that this benefited particularly married women, and increased their household decision-making power. They also found that households where a woman was offered the account, she was more likely to buy durables typically used by women within the household, and found no such effects on household durables when a man was offered the commitment savings account.

### **Risks and opportunities**

The literature on the gendered impact of financial services often overemphasizes credit at the expense of other aspects of financial services for poor women.

#### *Bundling credit and savings services*

More recent literature recognizes the benefit of bundling of credit and savings services, and that the spectrum of financial services should include opportunities to save—and to protect those savings.

#### *Bundling financial and non-financial services*

In addition to financial constraints, small farmers in developing countries also face market constraints in acquiring needed inputs (such as fertilizer, seeds, and extension services). Returns to financial services are thus highly conditional on access to other non-financial services.

There is demonstrated impact of bundling financial and non-financial services, for example for cocoa farmers in Ghana there is evidence that providing credit, training, inputs and access to markets led to an expansion in production and yields.

### *Need for better understanding of gender-focused outcomes and impact*

The researchers suggest that financial service providers need to understand how female farmer returns from financial services may be different from that achieved by male farmers, and what service features work best to achieve gender-focused outcomes and impact including financial independence and household decision-making power.

#### 6.2.2 *Evidence presented in the WEE Roadmap: access to tailored financial products*

Mehra et al. (2013) provided evidence on if and how financial services have contributed to women's economic empowerment, looking in-depth at three evaluations in low and middle-income countries.

The authors inform us that, until fairly recently, poor women in developing countries had virtually no access to formal financial services. But now, due to advances in microfinance over the past 30 years, more than 150 million women worldwide have access to microcredit. This microcredit is mainly delivered in the form of group-based methodologies; as a substitute for collateral, they rely on group members to share responsibility for ensuring others repay their loans.

#### **Impact**

The success of group-based microcredit is demonstrated by high loan recovery or repayment rates; the global average is at about 97%.

Solidarity group credit, village banking, self-help groups, and village savings and loans associations (VSLAs) are common among the successful group-based methodologies employed by microfinance institutions (MFIs). Group-based methods are also often credited with 'knock-on' effects, as they offer opportunities for women to build financial skills, exercise voice and leadership and network socially.

Of the millions of active MFI borrowers, the majority are women, with some institutions reaching women almost exclusively.

Furthermore, the review shows that impact studies are very diverse with respect to credit products, countries and contexts and results. However, the huge demand for microfinance provides strong evidence that it is useful and valued by clients, and is an important reason to continue to invest in programs.

More rigorous studies are said to be still needed, as there are mixed results in terms of impact on household welfare and poverty reduction, and women's agency.

#### **Risks and opportunities**

According to the authors, group based lending entails a number of risks. For instance, it requires women to meet at regularly-specified intervals to be trained and conduct business, and the time spent can be onerous as women have many competing demands on their time. Groups can also be oppressive if they use coercive techniques to force loan repayment, as some do.

As an alternative, some MFIs offer individual loans. Individual loans are still small in size, unlike traditional finance but, like group liability loans, do not require collateral.

### *Need for tailored products*

The authors suggest that there is scope, on the research side, for rigorously testing product demand. As microfinance matures and continues to segment its market, there will be a need to test the kinds of products that are sought by

women in more finely-tuned income groups. There is also a critical gap in loan products that are useful for women entrepreneurs. Research is needed to support the design of tailored products.

#### *Beyond credit*

Also, for some women micro-entrepreneurs, it may be necessary to offer other types of services that may include credit but also go beyond it to develop their business skills, and to make them 'loan ready' and better able to leverage credit. Some MFIs and banks are already doing so by offering business management, financial literacy, or enterprise-specific training.

#### *Potential of branchless and mobile banking*

Branchless and mobile banking were put forward as promising new developments that have great potential to expand financial inclusion, facilitate access to financial services among the poor and can help clients overcome financial shocks.

Mobile banking, in particular, has the potential to support women's ability to access financial services in safer, more convenient ways. A critical factor that needs to be considered in discussions on mobile banking is that there is a gap in women's ownership of mobile phones (Box 6-1). Further market research on women's demand for and ability to purchase mobile phones could provide insights on how to bridge this gap.

#### *Box 6-2: The potential for improving access to finance for women in Côte d'Ivoire*

According to CGAP data, nearly 44% of Ivorian adults have never used formal or informal financial services; access and use of credit and insurance products are very low.

It is argued that formal financial institutions still have a long way to go to offer financial services and modalities of delivery that can meet the needs of the diverse segments of Ivorian adults.

There is a huge gender gap, in terms of access to finance; poorer rural women, in particular, have very limited access to finance.

To put access to finance in the context of cocoa farmers, the IFC data reports that, from their sample, 15% of farmers reported having taken out loans in the past year. However, just 11% of these borrowers took their loan from a formal financial institution (i.e. bank, financial cooperative, MFI).

The primary source of these informal loans was friends and family members, with 54% of borrowers reporting having borrowed from kin in the previous year. The next most common lender was the farmers' agricultural cooperative, at 30% of borrowers. Other studies shows similar figures.<sup>48,49,50</sup>

The KIT study found that there is a significant difference between cocoa households and non-cocoa households in terms of source of credit. Cocoa-households most often access small loans through local buyers (*pisteurs*), while non-cocoa households rely on friends or relatives to borrow money more frequently than cocoa households. Earlier in Chapter 5, we demonstrated the same

<sup>48</sup> Tano, M. A. (2012).

<sup>49</sup> Balineau, G., Bernath, S., Pahuatini, V. (2017).

<sup>50</sup> Ingram, V. et al. (2014).

distinction for women and men in cocoa households: men access small loans most often from *pisteurs*, while women depend on friends and family.

#### *Bundling loans with savings*

Rather than focusing on loans, access to finance in combination with savings and other non-financial services has been recently promoted in Côte d'Ivoire.

Different cocoa and chocolate companies build on the VSLA model developed by the international NGO CARE.

In Côte d'Ivoire alone, CARE and its partners have mobilized nearly 230,000 VSLA members. The majority of VSLA members are women (81%). These members have amassed the capacity to mobilize savings every year the equivalent of nearly USD 1.4 million. Through its regional initiative, Women on the Move (WOM), CARE aims to reach 1,150,000 VSLA members in Côte d'Ivoire and Ghana by 2020. Collectively, this represents a business in itself with important entrepreneurship opportunities including potentially linking to cocoa cooperatives.

The cocoa sector has embraced the VSLA model, and rolled it out, together with CARE, in a number of cocoa growing communities. Mentioned benefits include increased access to loans, higher level of local investments, women's economic empowerment, community development, and higher enrollment rates in school.

#### *Innovative financial services*

Recently, we see in Côte d'Ivoire, some partnerships between cocoa traders, mobile network operators, micro-finance institutions and donors that started piloting innovative financial services, making use of mobile phone services. In these pilots, cocoa farmers receive harvest payments through savings accounts and mobile money accounts.<sup>51,52</sup>

In these pilots there is no specific focus on women.

## 6.3 Land tenure security

### 6.3.1 Evidence from the Farm Income Lab: need for specific attention for women's land rights

Peters (2018a) distinguishes two types of interventions that can be considered to support land tenure security:

1. Conversion of communal lands or non-demarkated lands to freehold title and registration of rights in official documentation. This involves initiatives of land titling, certification and individual registration.
2. Statutory recognition and capturing of customary or communal land rights and registration of these rights in official documents. This involves processes of creating tenure security via increased legal stature of customary rights. Studies in Africa often indicate that inheritance is the main channel through which land acquisition takes place, but that these are often accompanied by strong long-term private rights (often in the form of usage rights).

<sup>51</sup> Lonie et al. (no date)

<sup>52</sup> <https://www.advansgroup.com/media/news/blog-digital-financial-services-to-boost-the-financial-inclusion-of-cocoa-farmers-in-cote-divoire/>

The positive link between land tenure security and productivity and investment is generally based on four theoretical arguments that the researcher have sought to explore with empirical evidence:

1. Secured property rights are expected to provide a guarantee for farmers to undertake long-term investment in land-improving and conservation measures, since there would be no fear of expropriation.
2. Secured land rights make it easier to use land as collateral to obtain loans to finance agricultural investments
3. Better possibilities for trade: if improved transfer rights enhance factor mobility by making it easier for farmers to sell or rent their land, investment in land-improving measures may be facilitated.
4. Land rights provide freedom to innovate

### **Impact**

- According to the researcher, the initiatives surrounding land tenure security are often implemented at a large scale. However, the potential to scale or replicate to other countries or areas is low. This relates to the complexity of land tenure arrangements and the political nature of land.
- Generally the impact of increased land tenure security is found to be high. However, benefits are clearer in the long term.
- In African countries, the link between land tenure and income is much less clear and less clearly positive due to poorly understood customary land tenure (conversion) processes.
- Land tenure is often linked to agricultural investment strategies, such as labour, inputs, tree planting and soil conservation. In African countries, levels of rural agricultural productivity may remain weak due to factors other than tenure insecurity such as small farm size, the importance of off-farm income to rural households, and employment migration of family members to other areas. Regarding the nature of causality, evidence from West Africa points out that farmers were actually investing in land (in the form of tree planting) to gain tenure security.
- The sustainability was scored high, as land tenure interventions such as laws, reform and land certification/titling often take a longer time period.
- The potential of these interventions to positively impact on women was scored medium. According to the researcher, empirical effects on male-female relations in land tenure have not been studied enough. But it is clear that men generally have more access to land rights and titles than women. Also, unpredictable and in some instances negative consequences such as displacement or diminished property rights for women occur. Positive effects have been identified where explicit attention is paid to women's land rights, even though this is not often the case.
- The evidence base is particularly high regarding the positive relation between women's land rights and increased bargaining power and decision-making.
- On the other hand there is still limited evidence of the effects of women land rights on other livelihoods, credit, technology adoption and agricultural productivity.

### **Risks and opportunities**

Generally, it was found that gender dimensions in relation to land tenure have not been studied enough and evidence is still limited. A key question regards land tenure security arrangements and the effects on women and men. It is generally clear that women's rights over land and other farmer resources in Africa are inferior to men's rights.

*Focus on owners and heads of households*

In many of the debates, the underlying emphasis on increased (individual freehold) tenure rights prioritizes land owners and not the rural (land-less) poor.

It has been noted for instance that formalization of land into title deeds gives men, who are often household heads, more influence than other less empowered members of their household.<sup>53</sup>

#### *Explicit attention on women's land rights*

It is seen that if women are to benefit from land tenure interventions, explicit attention needs to be on women's land rights. There are examples of this such as joint titling and joint land certification that have given more attention to the gender dimension.

Recent efforts at land certification and registration have increasingly recognized women's rights to land. Specifically, women with land certificates are more likely to participate in household decisions and community activities, be aware of their land rights and land-related provisions, have a higher perceived level of tenure security, and are more willing to protect their land rights.

#### *6.3.2 Evidence on land tenure from WEE Roadmap: innovative approaches to enforce women's rights*

As part of the WEE Roadmap, Rodgers and Menon (2013) conducted a meta-analysis of land rights on women's economic well-being.

Existing evidence closely ties land tenure with increased investments in land and improved agricultural productivity, but also shows that very few women farmers share land or own land directly.

According to the authors, in principle, land rights are positively linked to household behaviour, economic well-being, and autonomy through increased security of land tenure and freedom from expropriation, greater access to credit, reduced vulnerability to food price shocks, and gains from trade in the rental and sales markets for land.

#### **Gender gap**

Different studies point out that women own (or have access to) substantially less land than men across developing regions.<sup>54</sup> For example, a large study in Benin showed that female-managed farms were found to be around 75% smaller than male-managed farms, and highly significantly so.<sup>55</sup>

The implications of these gender inequities in land holdings for agricultural investments and output are enormous given the fact that, among other things, insecure land tenure reduces the incentives of households to invest in their land.

Inheritance serves as the primary means through which women acquire land, and most countries are still characterized by male preference in bequeathal practices.

#### **Impact**

According to the authors there is evidence that women's land ownership improves economic security and wellbeing. Further, women with stronger ownership rights over their land have more decision-making power in the household, experience greater autonomy and gain more respect from family members. However, legal reform does not necessarily lead to changes in household behaviors.

<sup>53</sup> Simbizi et al. (2014)

<sup>54</sup> Rodgers and Menon, 2013; World Bank, 2011; FAO, 2011 in James C. Knowles (2013)

<sup>55</sup> Goldstein et al. (2013) Their data was collected across 289 villages in a total of 3,507 households, The sample includes 2,811 individual farmers, 500 of whom (18%) are female.

The authors noted that in a sample of households with widows in fifteen countries in Sub-Saharan Africa, total value of inheritance, especially land inheritance, is significantly correlated to higher levels of assets and long-term household consumption. In addition, legislation favouring women's control over assets was found to have strong impacts on children's (and particularly girls') schooling in instances of divorce.

Available evidence collected by Knowles (2013) suggests that the positive effects of land registration on land productivity are largest when there is a significant risk of expropriation, where there are attractive opportunities for land-related investments, and where land and financial markets are relatively well-developed.

There are wide-ranging differences in current evidence on the effectiveness of land registration interventions, and likewise, evidence on cost effectiveness varies widely due to large disparities from country to country in the cost per land parcel registered.

There is no evidence that more complex registration procedures (e.g. centralized computer-based registries) are more effective than simpler community-based procedures. Based on the limited evidence of effectiveness, cost-effectiveness, and sustainability, land registration is rated only as promising.

### **Risks and opportunities**

The authors point out that land titles are often distributed to heads of household only. Since the majority of household heads in most developing countries are (senior) male, this practice has led to an overwhelmingly disproportionate number of land titles allocated to men.

#### *Enforcement*

Access does not ensure ownership or actual rights to the land. State-sponsored efforts to formalize property rights need to address not only customary laws and women's right to property, but also enforcement.

#### *Customary laws*

The authors argue that greater attention must be paid to customary laws. Moreover, even though government efforts to reform land laws may give female household heads the right to receive land, in practice, they may not receive plots in the reallocation process when local officials redefine them as dependents of male relatives.

If customary laws have placed restrictions on women's access to land or prevented women from pursuing title, then these laws need to be revised so that they are in accordance with constitutional provisions that govern equality.

Greater attention needs to be paid to gender relations and power structures in rural areas that disadvantage women in their attempts to own land.

#### *Education of households and communities*

Given the finding that legal knowledge is a positive and statistically significant determinant of farmers' land-related investments and land values, some researchers argued that programs that educate households about their land rights may yield very high returns.

Community education on women's property rights is an important step in changing discriminatory cultural attitudes and practices and creating a sustainable

community structure to support women's rights. In addition, it is important to establish the necessary community-based legal support structures for property disputes, including watchdogs and paralegals.<sup>56</sup>

The authors recommend that land access for women requires innovative approaches and institutional reform, such as:

1. *Joint titling.* To ensure a more equitable distribution of property rights for women, some experts recommend more legislation that contains provisions for mandatory joint titling of land to couples and provisions that give priority to female household heads, which can help to protect women's rights to land in the event of separation, divorce or widowhood.
2. *Collective approaches can also increase women's access to land.* Such approaches include group investments in capital inputs, individual ownership combined with group cultivation and the distribution of group rights by governments to poor rural women. *Note: collective efforts need to be monitored carefully to ensure that existing inequities are not exacerbated.*
3. *Bypass customary law.* When it is not possible to integrate formal legal land tenure with customary land systems equitably, actions to help women bypass customary law and directly obtain access to land via formal land markets should be taken. For example, promoting land rental and sales markets, as well as the creation of land banks, could be viable policy options.

*Box 6-3: The potential for improving land tenure security for women in Côte d'Ivoire*

In Côte d'Ivoire, land was traditionally appropriated collectively and controlled on a village or lineage basis; this was called common or communal property. This meant that villagers, on condition that the piece of forest they were clearing was not already appropriated, did not have to ask permission to start cultivating the land. Only 'outsiders' had to ask permission from the chief and offer him a symbolic gift. It was possible to pass the land on to one's children but it was not possible to sell the land.<sup>57</sup>

With the introduction of tree crops, such as cocoa and coffee, private property rights emerged, mainly because of the long lifespan of these trees compared to food crops. Therefore, planting trees legitimized permanent land control. Another factor was that trees were considered one's property and could be sold (while land officially could not be sold).<sup>58</sup>

With these shifts, the perception of land scarcity also appeared. Planting trees became a strategy to secure future land, and made the plantation itself sometimes more of a by-product. The demand for land was further increased by the arrival of (im)migrants from neighbouring countries and the Northern part of the country.<sup>59</sup>

Initially, settlers cut down prime rainforest for cocoa and, once land became scarce in a certain region, simply moved to another region where new land could still be found. Therefore, in the mid-twentieth century, cocoa farms were rarely replanted with farmers preferring to move and cut down virgin forest

<sup>56</sup> Doss et al. (2013)

<sup>57</sup> Bymolt, Laven and Tyszler (2018)

<sup>58</sup> *Ibid*

<sup>59</sup> *Ibid.*

because of better soil fertility. Over time, this naturally exacerbated the pressure on land, which led to more land fragmentation and forest loss.

#### *Land reforms*

Early State attempts (1935 and 1963) to redefine the structure of property rights in Côte d'Ivoire, and bring back State control over all unregistered land, were unsuccessful and not truly enforced.

In 1998, the Rural Land Law was adopted, which reserved rural land ownership for Ivorian citizens. However, in practice, this law was difficult to implement.

In January 2017, a new rural land policy was adopted by the Government of Côte d'Ivoire, which confirms the objectives of the 1998 Rural Land Law, and also the government's intention to identify and formalize the boundaries between rural villages, and to clarify the land property rights of rural landholders. For this purpose the Rural Land Tenure Agency (AFOR) was established.

#### *Land scarcity*

In Côte d'Ivoire, with continuous growth of the population, the scale and intensity of land scarcity increased. Decreasing land availability increases the cost of land, restricts households' ability to expand their land under cultivation and, if land is not well managed, can lead to depletion of soil fertility.<sup>60</sup>

#### *Women and land*

The Rural Land Law officially also reversed traditional practices with respect to women and land, granting them rights equal to those of men. However, to make land rights a reality will require engagement at the village and family levels as the Rural Land Law is implemented, to ensure that women are issued individual title deeds. In practice, this engagement is lacking.<sup>61</sup>

*In Chapter 4 and 5, we identified already the main inequalities with respect to women and land: 1) Most female-headed households have access to land, but the size of land is significantly smaller than the plot of land that is cultivated/owned by male-headed households. 2) In male-headed households, the land is usually registered on the man's name. 3) In case of divorce or the demise of the husband, wife and female children do not automatically inherit the land.*

## **6.4 Farmer organizations**

### *6.4.1 Evidence from the Farmer Income Lab: producer collectives create benefits but can be expensive and risky*

Producer organizations (POs) are defined as farmers organizations that focus on creating economic benefits for their members, and only indirectly create benefits for the wider community.

The theory of change (ToC) around POs is generally based on transaction cost theory. The basic idea is that collective action reduces transaction costs. Producer organizations are governance structures that seek to lower transaction costs related to input and output markets through collaboration.<sup>62</sup>

<sup>60</sup> Bymolt, Laven and Tyszler (2018)

<sup>61</sup> <https://www.land-links.org/country-profile/cote-divoire/#1528484265604-d813d6fe-4a17>

<sup>62</sup> Bijman (2016) in Peters B. (2018b) <http://edepot.wur.nl/460686>

Different authors in Peters (2018b) indicate that, depending on their priorities, POs can:

- Lower marketing and service costs through economies of scale;
- Increase bargaining power through bulking and increasing quality, leading to higher prices;
- Improve farmer credibility and profile, allowing them to access new markets that may be more profitable, such as through contract farming;
- Help farmers to comply with stringent food standards;
- Improve access to services, technologies and productive assets;
- Process produce to access higher value markets at a later stage in the chain;
- Increase confidence and influence: farmer organizations that work well, and especially larger farmer organizations and unions, can achieve national and international political influence.

### **Impact**

- The range of scale regarding cooperatives can be from a very small group of producers actively collaborating to national level cooperative unions. Often cooperatives can grow in size through expansion of membership or merging with other cooperatives;
- Members of POs receive much better benefits in terms of income, yield and consumption expenditure than non-members;
- The sustainability of POs, in terms of evidence, is inconclusive. Though POs can be self-sustaining as businesses, many need long-term support, collapse or merge. Also, POs rarely self-organize on a formal basis without external support.
- According to the authors, the potential of POs for women is scored low. The main reason for this low score is that gender issues related to cooperatives are still poorly explored in the literature assessed here.

### **Risks and opportunities**

Some of the literature explores the tension between inclusiveness and effectiveness, agreeing that the poorest farmers generally cannot (or perhaps should not) be members of POs due to high membership costs or lack of assets. For example, Verhofstadt and Maertens (2015) found that, in Rwanda, the positive effects of being a PO member were largest for larger farms and for farmers living in more remote areas.

According to the literature review, PO membership can be expensive and risky, especially from a gender perspective.

#### *Gendered constraints to participate in and benefit from PO membership*

Theoretically, cooperative membership can contribute to women's empowerment by supporting individual agency. Women can access knowledge, resources and exchange entitlements via a cooperative.

Factors mentioned that limit women's membership in POs include:

- Household duties may prevent women from delivering produce at the required time or to distant purchase points (e.g. in contract-farming);
- Cultural constraints or limited access to cash income;
- Intra-household dynamics and who decides on membership.

#### *Removing mobility constraints for women*

According to one of the researchers<sup>63</sup> a potential positive effect of POs is that, by travelling together or organising a secure means of transport, POs can also enable women to access markets (which is sometimes difficult for them due to safety concerns or social norms that make it unacceptable for women to travel on their own).

#### *6.4.2 Evidence from the WEE Roadmap: collectives can improve access to markets and services*

Farmer groups, associations or collectives can provide individual women producers with access to markets and help overcome constraints they face in meeting the demands of agricultural supply chains.

Both the analysis of women's participation in agricultural supply chains and of good practice projects single out the importance of providing women farmers with access to markets and the role of female-only or mixed (female and male) groups or collectives in enabling individual producers to link to markets and achieve scale.

Farmer associations are likely to be effective for women when:

- Organization is conscious of internal group workings and gender dynamics;
- Government agencies have capacity and are involved in projects, and governments have favourable views of female inclusion;
- National laws mandate minimum female participation levels.

#### **Impact**

Evidence suggests that, while formal groups help members engage more effectively with markets, informal groups help women develop leadership skills, build savings and aids their participation in formal groups. Similarly, participation in women-only groups helps facilitate participation in mixed female and male groups, where access to resources and therefore economic benefits of membership are greater than in women-only groups.<sup>64</sup>

In the supply chain, groups can help overcome the constraints that individual women farmers may face to meet large orders or to purchase the required inputs. Groups can increase smallholder growers' competition and their leverage in markets; they can also increase incentives for buyers and producers to engage in a market relationship.<sup>65</sup>

#### **Risks and opportunities**

The authors point out a number of risks and opportunities.

##### *Time and cash constraints*

Groups demand time and cash for transactional costs, and women farmers are usually short on both time and cash.

##### *Cost of participation is higher for more disadvantaged women*

There can be 'elite capture'—from better-off or more influential females in female-only groups and from males in mixed groups.

<sup>63</sup> Buckley 2007 in Peters 2018b

<sup>64</sup> Oxfam (2013) in Buvinić, M. et al (2013)

<sup>65</sup> FAO (2011); WDR (2008) in Buvinić, M. et al. (2013)

It is safe to assume that the more disadvantaged the woman farmer is, the more she will benefit from group participation but the greater her costs of participating.

The advantages of groups or collectives in the supply chain should extend beyond farming to cover individual women producers both on and off the farm.

#### *Improved access to markets*

Farmer groups, associations or collectives can help women farmers overcome market failures (e.g. unequal access to information, assets and equipment), which make it difficult to diversify and engage in commercial farming.

In addition to sharing information, groups can share funds and costs. Furthermore, groups can lower barriers to marketing, provide access to more distant markets, and enable women to access agricultural credit.

#### *Box 6-4: Female participation in cocoa producer groups<sup>66</sup>*

In Côte d'Ivoire, the cooperative is the most common type of cocoa producer group. There are over 1,500 registered cooperatives but, according to the Ivorian Ministry of Agriculture, most of them are not (well) functioning.<sup>67</sup>

There are conflicting reports on the percentage of farmers that are cooperative members. According to the Conseil du Café-Cacao (CCC), around 50% of cocoa farmers are members of a cooperative,<sup>68</sup> while others point to a much lower percentage (around 20%).<sup>69,70</sup>

Most cooperatives - some of which participate in certification program - are exclusive suppliers to exporters. In the literature, the most frequently mentioned benefits of being a cooperative member in Côte d'Ivoire are better payment terms (such as prompt payment, or a price premium),<sup>71,72</sup> and access to inputs, information and services.<sup>73</sup>

In Côte d'Ivoire, when discussing formal cooperatives in focus group discussions for the KIT study, participants were often negative. The main reasons were financial mismanagement or embezzlement of funds by cooperative leaders. This understandably causes mistrust among community members and hampers the establishment of new cooperatives.

In the KIT study, female-headed cocoa households reported low rates of cocoa producer group membership (13%).

A study by GEFAK Gesellschaft für angewandte Kommunalforschung mbH, commissioned by the GISCO Secretariat at GIZ, gives some additional insights into the share of women in Ivorian cocoa cooperatives. In a study among 40 cooperatives, the average share of female members was 19%, with a wide range of female membership from only 5% up to about 35%.

<sup>66</sup> Bymolt, Laven and Tyszler (2018)

<sup>67</sup> GEFAK. (no date)

<sup>68</sup> *Ibid.*

<sup>69</sup> Kapoor (2016)

<sup>70</sup> Bymolt, Laven and Tyszler (2018)

<sup>71</sup> Varlet, F. & Kouamé, G. (2013)

<sup>72</sup> Calkins, P., & Ngo, A. (2005)

<sup>73</sup> Ingram V. et al (2013)

Partly, the low membership of female farmers can be explained by the condition that is set on membership. In order to be a member you have to show that you are an active producer of cocoa. This means that you have to be able to show that you are the owner, or at least the manager of the farm. We have seen in earlier sections of this study that in male-headed households, the land is normally registered in the husband's name, and the wife is seen as a 'helper' and not as farm manager.

Therefore this membership condition includes primarily female heads, but excludes other women.

GEFAK suggests two main approaches to increase the membership of women in Ivorian cocoa cooperatives:

- (i) more women become cocoa farmers or are able to sell cocoa beans on their own account;
- (ii) the cooperatives widen their scope of business and market in addition to cocoa and coffee also food crops.

## 6.5 Livelihood approach

### 6.5.1 Evidence from Farmer Income Lab: poverty graduation programs support livelihoods with a mix of interventions

Poverty graduation programs are programs that take a holistic approach of combining livelihood promotion and safety nets to create time-bound pathways out of extreme poverty.<sup>74</sup> These programs have five defining characteristics that work in coordination with one another:

1. Targets the household;
2. Provides holistic support through the combination of social assistance, healthcare, livelihood training, and financial services;
3. Gives an initial economic 'push' to the family through a single, significant investment;
4. Includes coaching or mentoring to overcome economic and social barriers;
5. Sets a time-bound schedule with a clear process for graduating the household into larger social protection systems or access to microfinance.

The overarching view of such programs is that, with the right mix of interventions offered in the right sequence, households can graduate from extreme poverty into sustainable livelihoods.

#### Impact

- Evidence shows that poverty graduation programs have expanded to millions of people since their inception in 2002 and have shown that they have the potential to include large numbers (well beyond 5,000 individuals) of participants through single interventions.
- The impact in income increase is scored high.
- The sustainability is scored medium. Evidence suggest that the impact of poverty graduation programs are experienced only after 3 years.
- The potential impact on women was scored high, as poverty graduation programs have had a traditional focus on women and many of the programs are overwhelmingly represented by women. Studies show a statistically significant impact on women's empowerment, decision-making, and wellbeing during the course of programming.

<sup>74</sup> Saxena et al. (2018)

- There were also some other outcomes beyond income. Most studies included a number of other indicators beyond consumption and income and largely found positive impacts across these areas, including mental health, assets, time use, food security, among others.

### **Risks and opportunities**

On the surface, poverty graduation programs can have a strong impact on women, but the results on sustained empowerment and improvement are somewhat mixed. The CGAP study (2016) indicates that out of 55 programs globally, only 31% target women. Other studies questioned the durability of the impact.

#### *Need to understand better the impact of poverty graduations on women*

According to the researchers, more research would be needed to fully determine what, if any, effect poverty graduation programs have on women. Moreover, there is no evidence available that explores how these programs could be implemented in specific value chain contexts.

#### *Social safety nets*

Several studies note the importance of having strong social safety net systems in place prior to the rolling out of poverty graduation programs. It has been argued that poverty graduation programs work especially well when coordinated with other social safety net programs that are run by governments.

#### *Diversity in partners is important*

Poverty graduation programs are complex in nature and their interventions must span social protection, livelihoods development, and financial services, among others. Given this broad range of needs and the corresponding requirement of flexibility, it is important that poverty graduation programs seek out diverse partners who can potentially fulfill multiple needs, while still being sensitive to the overall context.

#### *Poverty graduation programs need to be flexible*

The authors argue that poverty graduation programs need to be flexible in setting clear, context-specific criteria that are also time-bound.

#### *A participatory process is part of the design phase*

One of the key design facets of poverty graduation programs is participant selection and ensuring that local communities have a voice in selecting beneficiaries. Many poverty graduation programs include a participatory process in village meetings that allows community members to select who should be included in poverty graduation programs.<sup>75</sup> Not only does this create broad-based buy-in at the community level, but it also serves as an additional check on other data (e.g. from governments' social safety net programs) that is used to select participants.

### **6.5.2 Evidence from WEE Roadmap: Mainstream gender in livelihood programs**

Livelihood programs combine access to reproductive health knowledge with income generation and asset-building, including improving young women's access to loans, savings and markets.

#### **Impact**

Livelihood programs show promising results for young women in low-income settings and in socially conservative environments, but need to be further evaluated before they can be delivered at scale. The longer-term impacts are not known. Data about costs is also largely missing in these evaluations, which means that less is known about the cost-effectiveness of these programs.

<sup>75</sup> CGAP & Ford Foundation (2016) in Saxena et al. (2018)

The authors bring in evidence from a number of evaluations and case-studies. Recent evaluations of the BRAC adolescent programs in Bangladesh, South Africa and Uganda find positive outcomes, including increases in earnings and savings.<sup>76</sup> At the same time, they show a reduction in pregnancy rates, underscoring the strong connection that appears to exist between economic and health indicators for young women.<sup>77</sup>

Another program (The Ishraq program in rural Upper Egypt) that was evaluated aimed at improved education, health and social opportunities for young women/girls. They found that 68% of the girls who completed the full program had entered middle school by the end of the program, compared to none of the girls in the control villages.<sup>78</sup>

Evidence from a case-study concerning clean cookstoves in Bangladesh<sup>79</sup> identified what has been working among the three largest cookstove implementers in the country— GIZ, Grameen Shakti and the Village Energy Resource Center. These include practices such as identifying strong female entrepreneurs in other sectors and recruiting them into the cooking sector, connecting entrepreneurs to microcredit, assigning gender focal points within the organizations, developing Gender Action Plans (GALS) to identify specific gender targets and outline strategies for increasing staff's capacity on gender responsiveness, and collaborating with women's organizations.

According to the Clean Cooking Alliance,<sup>80</sup> lack of access to cooking fuel forces women and children to spend many hours gathering fuel - up to 5 hours per day - or spend significant household income purchasing fuel. In some cases, women provide 91% of households' total efforts in collecting fuel and water, and women have an average working day of 11-14 hours, compared to 10 hours on average for men. A reduction in time spent collecting fuel and cooking enables women to spend more time with their children, tend to other responsibilities, enhance existing economic opportunities, pursue income-generating or educational opportunities and leisure activities and rest - all of which contribute to poverty alleviation.

### **Risks and opportunities**

Although previous studies have shown that women play an important role in supporting their households by generating income, they face persistent and structural constraints, including patriarchal ideologies and adverse socio-economic norms that prevent them from fully improving their lives.

#### *Reduce barriers for women*

The authors therefore argue that there is a need for interventions that reduce the barriers that women are more likely to encounter, such as social and family constraints, lack of financial capital, negative attitudes toward women employees and lack of awareness about the opportunity itself.

#### *The need to involve women in the design-stage*

It is recommended by the authors to mainstream gender and women's empowerment into project planning, objectives, and implementation as a means

<sup>76</sup> <http://www.bracinternational.nl/en/who-we-are/our-identity/>

<sup>77</sup> Bandiera et al. (2010) in Saxena et al. (2018)

<sup>78</sup> Brady et al. (2007) in Saxena et al. (2018)

<sup>79</sup> Dey (2013)

<sup>80</sup> <https://www.cleancookingalliance.org/home/index.html>

to ensure user-friendliness, increase project effectiveness, development impacts, and adoption rates.

*Box 6-5: The potential of livelihood strategies for women in Côte d'Ivoire*

There have been many sustainability initiatives which aimed to improve the livelihoods of cocoa farmers in Côte d'Ivoire. Recently, Ingram et al. (2018) did a thorough analysis of the impact of the contribution of sustainability initiatives in the cocoa sector in West-Africa to farmer livelihoods during the period 2012-2017.<sup>81</sup>

In Côte d'Ivoire, since 2012, traders, the Conseil du Café-Cacao, and partners, have been supporting farmer organizations, and there was a growth in the number of projects by government agencies, international donor agencies, traders, grinder-processors, and cocoa manufacturers, as well as by *pisteurs* and cooperatives.

One of the conclusions of Ingram et al. (2018) was that the impact of sustainability-focused interventions in the form of voluntary certification and related packages of services on farmers in West Africa has been mixed and modest. In Côte d'Ivoire, it was reported that farmers who received the most complete packages of services in the past year, saw the biggest improvement over time.

Linked to this finding, one of their recommendations was to target interventions more closely to match farmers' varying demographic, economic, and farm characteristics, with tailored mixes of service packages that focus on farmers' specific needs and the most problematic practices relating to child labour, input use, shade trees, and waste management.

The authors also emphasized the need for a farm household approach rather than focusing on cocoa only to improve sustainable cocoa production and livelihoods of cocoa farmers. Furthermore, Ingram et al. recommend a focus on combining bottom-up farmer and top-down industry and government visions for a sustainable cocoa sector.

Finally, the authors recommend a transformational approach to provoke systemic change in the West African cocoa sector, which addresses at least the issues of environmental degradation, living incomes, worst forms of labour, and the interlinkages between national, regional, and international cocoa market economics and politics that are currently largely unaffected by certification and corporate sustainability programs.

The authors did not look specifically into gender issues as part of their overall analysis.

The Cocoa Livelihood Program (CLP), managed by the World Cocoa Foundation, is an example of a livelihood program with explicit gender objectives. The gender component was funded by the Walmart Foundation. The CLP gender objectives were:

<sup>81</sup> Ingram et al. (2018)

Ingram, V., Rijn, F. van, Waarts, Y., Gilhuis, H. (2018) The Impacts of Cocoa Sustainability Initiatives in West Africa. In *Sustainability* 2018, 10, 4249. Available at [https://www.wur.nl/upload\\_mm/1/6/d/c1752920-82f8-4119-bce2-59c9e19eb96b\\_The%20Impacts%20of%20Cocoa%20Sustainability%20Initiatives%20in%20West%20Africa.pdf](https://www.wur.nl/upload_mm/1/6/d/c1752920-82f8-4119-bce2-59c9e19eb96b_The%20Impacts%20of%20Cocoa%20Sustainability%20Initiatives%20in%20West%20Africa.pdf)

1. Increased farmer training and outreach with a focus on women;
2. Increase cocoa productivity on farms;
3. More prosperous and food secure households.

The idea was that increased income for women, through income generating activities from cocoa farming and non-cocoa farming activities (i.e. food crops), will have a greater impact on the wellbeing of the farming household. This is based on the assumption that women take more responsibility for the wellbeing of the household, and therefore more income will be available to meet the health, nutrition, and education needs of the family. Moreover, income from food crops would allow farmers to complement their cocoa incomes and, as a potential result, increase the amount of nutritious food that they can buy for household consumption.

## 7 Conclusions

The living income gap of a typical cocoa growing household in Côte d'Ivoire is about two thirds of the net income required for a decent standard of living. To complement their seasonal income from cocoa, households generally cultivate multiple crops or do other activities such as operating small businesses. However, the earnings are still not enough to cover the costs of living. A particular challenge is the seasonality of cocoa and food production, which means that income and access to food is not continuous throughout the year. In addition, cocoa households' main expenditures (covering education, food and health costs) also fluctuate, which results in periods of particular hardship, particularly from July to September.

Cocoa households usually have different male and female income earners, whereby, depending on the type of household, the men spend usually more time on cocoa production activities and the production of other 'cash crops', while women usually spend more time on food crop production, small businesses and trade.

Earlier studies have demonstrated that it cannot be assumed that men and women in the same household have the same preferences and decision-making power, or that the income is spent for the benefit of the whole household.

In this study, we took a gender-sensitive household approach towards looking at closing the living income gap with the aim of identifying more integrated and tailored solutions that benefit all members of cocoa growing households.

By using a 'gender lens' we noticed the following differences between female-headed versus male-headed households:

- *Household-head*: In most households in Côte d'Ivoire, men self-identified as the head of the household, which typically implies an important role in decision-making and is also often related to ownership over assets such as land, and taking responsibility for farm management.
- *Demographic characteristics*: Female-headed households are generally smaller in terms of household size, around half of the female heads have not received formal education, and female-headed households score very low in terms of dietary diversity. The smaller household size for female-headed households determines their available household labour, cost of living and income.
- *Crop preference*: Cocoa is of less importance for female-headed households vs male-headed households. For female-headed households, cassava is considered to be the most important crop, which generated highest income.
- *Access to resources*: Female-headed households are more constrained in terms of access to land, family labour and they use less inputs. The land size for all crops, as well as for cocoa, is significantly smaller for female-headed households.

An important notion is that female-headed households do not represent female farmers (and male-headed households do not represent male farmers), but rather should be thought of in terms of the household unit.

The distinction between female-headed and male-headed households tends to overlook the fact that households can also be 'co-headed' or that every household has different female and male income earners. Therefore, working towards a living income requires considering both male and female earners in a cocoa household,

and understanding their different preferences, constraints and decision-making power. We identified the following gender differences within cocoa households:

- *Time-investment*: In male-headed cocoa households, men usually spend more time on cocoa production activities and the production of other ‘cash crops’, while women usually spend more time on food crop production, small businesses and trade. Women also spend a lot of time on household activities, comparing to men.
- *Labour-division in cocoa*: Men are more involved in almost all cocoa production activities. Women engage in cocoa production activities much less frequently. In Côte d’Ivoire, the main activity where women play a substantial role in cocoa production is pod breaking, and to a lesser extent planting. Women play an important role in taking-care of the young cocoa farms and cooking for their husbands and labourers that work on the farm.
- *Decision-making*: Being the head of the household is the strongest predictor for decision-making. In Côte d’Ivoire, 90% of male respondents self-identified as the household head, compared to 26% of female respondents. Self-identifying oneself or not as the household head strongly reflects local gender norms. While men take most decisions about cocoa and do the marketing, women tend to have more control over the income they earn with selling food crops and other small businesses. This income tends to be far less than the income that is earned with selling cocoa. So, women tend to have more control over a smaller part of the household income.
- *Access to and control over resources*: Women (in male-headed households) have unequal access to land, which is likely to manifest itself in women participating less in cocoa producer groups, having less access to training and missing out on the opportunity to borrow money from cocoa buyers, and possibly other services.
- *Norms and assumptions*: The traditional view that cocoa is a man’s job, and women are helpers of their husbands reinforce certain division of tasks and the extent to which women ultimately benefit from cocoa production. This contributes to a situation where women are not only more constrained, but also less incentivized, to invest in cocoa production activities as they benefit less from their involvement.

Identifying interventions that help to close the living income gap for the benefit of all members of cocoa households lies at the heart of this study. In identifying actionable strategies, we built heavily on two robust sources and (because of their complementary focus) looked at their overlap. In addition, we reflected on the potential of these interventions for the cocoa sector in Côte d’Ivoire.

We conclude that the promotion of **saving groups** seems relevant for all women (and men) in cocoa growing areas in Côte d’Ivoire.

These saving groups are an alternative for saving at home, which is more risky. Moreover, savings are better than loans, while serving many of the same purposes as loans. A significant advantage of savings over credit is that it does not involve repayment and the risk of indebtedness—important reasons why poor people can and want to save.

Participation in saving groups contributes to income stability. This can help for example, to prevent the need to take out loans, and helps to overcome periods of food insecurity. Savings also help to mitigate shocks. There is robust evidence that savings generates room for making investments.

For married women, evidence suggests that savings increase their decision-making power in the households. A concern is, that this might create tensions in the family, with the risk of domestic violence. Another concern is that married women often do not control the bulk of the income that comes from cocoa (or other cash crops), which makes it difficult for them to save substantial amounts of money on their own.

In considering **financial service provision** for women, it is important not to overemphasize credit. Instead more impact is expected from smart combinations of savings and credit, and financial and non-financial services. In providing women access to such services, gender-specific barriers need to be taken into account, for example collateral requirements, limited education and mobility.

The Village Saving and Loans Associations (VSLA) model, developed by the international NGO CARE, has been adopted by cocoa and chocolate companies. Benefits include increased access to loans, higher level of local investments, women's economic empowerment, community development, and higher enrollment rates in school.

The evidence on **land tenure security** shows clearly that there is a specific need to focus more on women's land and property rights. The evidence suggests a positive relation between women's land rights and increased bargaining power and decision-making. In Côte d'Ivoire, officially, women and men have equal land rights, but we have seen that in practice women have less access to land, with different constraints for women in male- and female-headed households (female-headed household usually own less land, while the land in male-headed households is usually registered in the man's name). The norm is that (if married) men are usually the land owner. At the demise of her husband, or at divorce, women cannot claim rights to their husband's property, unless this was stated in their husband's will. Also a female child can only inherit from her male parent, if he had made a traditional will or a gift to them before his death.

The potential of membership of a **farmer organization** to increase the income of cocoa households and positively impact on women's economic empowerment is substantial. However, there are a number of factors that limit women's active participation in farmer organizations, such as time and money constraints and a lack of decision-making power and poor mobility. In the case of Côte d'Ivoire, another reason why many women do not participate in 'cocoa farmer cooperatives' is that women show relatively little interest in cocoa production. Moreover, usually only one household member is a cooperative member. This is normally the one who is the head of the household, has land registered in his/her name and the one who sells the cocoa to the cooperative, which is generally the man.

While, theoretically, cooperative membership may contribute to women's empowerment by supporting individual agency, and provide women access to knowledge, resources and exchange entitlements, in practice, a cooperative that focuses only on cocoa will only attract female heads of cocoa households. Moreover, only improving the access of cocoa farmers' spouses to farmer organizations will not automatically result in clear benefits, as married women tend to have little control over the income generated by cocoa sales. So, spending more time on cocoa related activities might involve an opportunity cost.

Offering the right mix of interventions is a crucial part of successful **livelihood strategies**. Evidence shows that there is a strong connection between economic and health indicators; access to reproductive health knowledge has been successfully combined with income generation and asset-building, including improving young women's access to loans, savings and markets. There is also a connection between improved education, health and social opportunities for

young women/girls. In addition, there is convincing evidence on the benefits of introducing clean cookstoves, which save a lot of time, improve the health and enhance income-generating opportunities.

Livelihood programs rolled out in cocoa growing communities have focused very much on improving 'cocoa livelihoods', putting emphasis on increasing the income from cocoa. More recently, income diversification has been put on the radar of cocoa livelihood programs, providing more space for male and female farmers to benefit and to look for ways to improve income stability, and resilience.

## 8 Recommendations

In this last section, we provide some concrete recommendations for action:

### Savings and financial services

1. We recommend investing in the development of mobile money services that offer formal savings, credit and insurance products. The use of mobile money services tailored to the needs of saving groups seems to have a lot of potential for raising incomes and women's economic empowerment. A key challenge is to increase the number of women that have an active mobile account, to close the already existing gender gap, and to avoid the gender gap becoming even bigger.
2. In considering financial service provision to women, it is important not to overemphasize credit. Instead, more impact is expected from smart combinations of savings and credit, and financial and non-financial services. In providing women access to such services, gender-specific barriers need to be taken into account, for example collateral requirements, limited education and mobility.
3. We support the suggestion for the development of tailored financial products for female farmers and entrepreneurs. We recommend that in such attempts, first of all, the diversity among women is. Secondly, women's participation in the design, testing and monitoring of such customized financial products or services.
4. We recommend further scaling of the VSLA model, as well as exploring opportunities to use VSLA as catalyst to build women's leadership, facilitate women's access to meso-finance, and involve men more, both as participants as well as supporters of their wives.

### Land tenure

5. We recommend drawing lessons from existing examples of joint titling and joint land certification that have given more attention to the gender dimension, and in other more informal ways of giving women access to the use of land and services, and control over income. Promising practices could be tested in partnership with local companies and other local stakeholders. Engagement at village and family levels is key to make land rights a reality.
6. Based on the evidence, we recommend looking into simpler community-based procedures and education that acknowledge and address power structures in rural areas that disadvantage women in their attempts to own land, and make women aware of their rights. Inspiration can probably be best drawn from other countries/sectors, and considered for piloting in Côte d'Ivoire.
7. In relation to land tenure, we recommend conducting research and exploring opportunities to open up the land market, allowing women to bypass customary law. Furthermore, we would like to stress the fact that, in any strategy, institutional reforms should be cautious not to harm women that are not the household head.

### Farmer organizations

8. To allow more women to become active members of farmer organizations requires changing registration requirements, for example allowing a household dual membership. However, to gain interest among women to become active members of a farmer organization, the organization needs to provide services that benefit women. These could involve marketing, processing or storage services for other crops.

### **Livelihood programs**

9. For livelihood programs to have both a positive impact on income and women's economic empowerment, gender should be mainstreamed in all steps, and a participatory and flexible approach is recommended. The evidence suggests that further research is needed, as there is still a need to understand better the impact of poverty graduations on women. This is despite the fact that women are often targeted by these programs.
10. Considering some of the positive experiences with reproductive health, and cookstoves, etc, we recommend validating these practices with women in cocoa growing communities in Côte d'Ivoire, and other stakeholders. In case of promising results, these practices can be further tailored and piloted.

### **Income diversification**

11. A final recommendation is that income diversification and income stability should be at the heart of strategies that aim to close the living income gap for cocoa households in Côte d'Ivoire and contribute to cocoa households' resilience.

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## 10 Annex 1 Evidence from the Farmer Income Lab<sup>82</sup>

### Scoring criteria

	High	Medium <sup>8</sup>	Low
<b>Income Impact</b>	>50% income increase	10 – 50% income increase	<10% income increase
<b>Scale<sup>9</sup></b>	Strong replication of intervention taking place directly or indirectly – >5,000 beneficiaries reached	Initial replication taking place – 1,000 – 5,000 beneficiaries reached	Presumed direct interaction with majority of intervention adopters – <1,000 beneficiaries reached
<b>Durability (Over Time)</b>	Evidence of impact >5 years after external support ends	Evidence of impact 2 – 5 years after external support ends	Evidence of impact 0 – 2 years after external support ends
<b>Inclusion of Female and Male Farmers</b>	(1) Deliberate consideration and focus on women during the intervention design period AND (2) specific indications that an intervention had a positive impact on promoting women's empowerment or inclusion	Deliberate consideration and focus on women during the intervention design period	No deliberate consideration of women during the design intervention period or during the intervention

### Evidence on what works to increase smallholder farmers' income

Category of Intervention	Description of Evidence	Relevant Interventions	Income	Scale	Durability	Gender
<b>Category 1:</b> High income impact demonstrated at scale	Evidence demonstrates income increases of 50%+ can be achieved for large numbers of farmers (5000+)	Poverty graduation programs	High	High	Medium	High
		Outgrower schemes / contract farming			Medium	Low
		Climate change adaptation			Low	Low
<b>Category 2:</b> Medium income impact at scale with demonstrated impact on income enabling factors	Evidence demonstrates 10-50% improvements in income across 5000+ farmers as well as strong performance of proxy indicators such as production or empowerment	Savings-led groups	Medium+	High	High	Medium
		Access to finance			n/a	High
		Producer collectives			n/a	Low
<b>Category 3:</b> Interventions with mixed evidence of impact across the selected criteria	Evidence demonstrates 10-50% income improvements. While these interventions may not be able to deliver 50%+ increases consistently, they can deliver positive results in specific contexts	Agro-corridors	Medium	High	High	Medium
		Productivity enhancement		Medium	Medium	Low
		Land tenure security		High	High	Medium
		Market information systems		Medium	Low	Low
		Crop insurance		High	Low	Low
		Farmer field schools		High	Low	Low
<b>Category 4:</b> Medium income impact with demonstrated limited impact on income enabling factors	Evidence demonstrates 10-50% income increases and limited change in other income enabling factors such as empowerment	Certification	Medium-	High	Medium	High
		Post-harvest loss prevention		Low	Low	Medium
<b>Category 5:</b> Interventions that did not show significant income increases	Evidence demonstrates these interventions deliver income improvements less than 10%, though they are highly scalable and could be part of a broader approach	Pricing arrangements	Low	High	Low	Low
		Input subsidies				

<sup>82</sup> Available at [https://www.farmerincomelab.com/Content/Theme/docs/What%20Works\\_FINAL\\_9.19.pdf](https://www.farmerincomelab.com/Content/Theme/docs/What%20Works_FINAL_9.19.pdf)

## 11 Annex 2 Evidence for women's economic empowerment<sup>83</sup>

PROVEN OR BEING PROVEN	FOR
Evidence for effectiveness or cost-effectiveness is robust or, in the absence of cost-effective data, simple and replicable in different settings, or weight of evidence is more than promising	
Savings	All
Credit	Non-poor
Business management training	Non-poor
Bundled services: In-kind capital (large) + asset-specific training & TA <sup>13</sup>	Very poor and poor
Land rights/land titling	All
Child care for wage workers	All
Rural electrification	Poor and very poor
Demand-driven job services: skills training, internships, vouchers, and/or subsidies	Young women
Conditional cash transfers	Young women
PROMISING	FOR
Credible evidence is positive, but not yet convincing in terms of breadth	
Mobile phones (for financial transactions and market information)	All
Consulting (TA) services for entrepreneurs	Poor and non-poor
In-kind capital tailored for women microentrepreneurs	Poor
Information on land rights	All
Farmer associations and networks	All
Suite of integrated services for farming <sup>14</sup>	Poor
Modern agricultural inputs (e.g., improved seeds, fertilizer, irrigation)	Non-poor
Livelihood programs (reproductive health + asset building + safe spaces)	Young women
Unconditional cash transfers	Young women
HIGH POTENTIAL	FOR
Intervention has been largely untested but promising on conceptual grounds	
Farmer field schools	All
Information on jobs (through mobile phones)	Young women
Firm certification	All
Non-traditionally female job skills training for wage workers	All
Business associations and networks	All
Mentors and role models	Young women
UNPROVEN	FOR
Intervention has not been effective for the particular category of women in the specific settings where it has been evaluated	
Business management training alone	Very poor
Micro cash loan or grant alone	Very poor, poor
Skills, on-the-job training and/or wage subsidies for the unemployed	Poor

<sup>83</sup> [http://www.womeneconroadmap.org/sites/default/files/WEE\\_Roadmap\\_Report\\_Final.pdf](http://www.womeneconroadmap.org/sites/default/files/WEE_Roadmap_Report_Final.pdf)