

Gender and cocoa

Bymolt, R., Laven, A., Tyszler, M. (2018). Demystifying the cocoa sector in Ghana and Côte d'Ivoire. Chapter 14, Gender and cocoa. The Royal Tropical Institute (KIT). As discussed in Chapter 3 (Respondent and household demographics), the sex of cocoa farmers (often discussed in terms of gender) has been a prominent characteristic of analysis by many researchers.^{1,2,3,4,5} Sector organisations and international NGOs alike bring attention to gender inequalities.^{6,7}

In many cocoa studies, we observe that sample sizes tend to be small or the proportion of female respondents in the sample is low, which makes it challenging to draw firm conclusions about how gender differences may affect outcomes for individuals or the household. In our study, in both countries 34% of our respondents were women, which includes women in male-headed households (20% of the respondents) and self-reported female heads (14% of respondents).

In our study, we have usually reported statistically significant differences between male and female-headed *households*, rather than between male and female *respondents*. The reason is that the survey questions were primarily targeted at the household unit. We know that, more often than not, multiple household members, male and female farmers, participate in various farming and supporting activities for the good of the household. It is therefore challenging to derive clear cut distinctions between male and female farmers based on our survey questions.

Our focus group discussions proved to be a better method to elicit individual experiences than the household survey. We used the indicators of the Abbreviated Women's Empowerment in Agriculture Index (A-WEAI) as an organising tool for our qualitative data collection.⁸ During focus group discussions, men and women sat apart.⁹ As explained in Chapter 2 (Methodology), the facilitator took turns prompting first women, and then men to respond during each topic of discussion. This set-up allowed us to identify some gender differences between men and women living in cocoa growing communities.¹⁰

¹ Vigneri, M. and Serra, R. (2016). Researching the Impact of Increased Cocoa Yields on the Labour Market and Child Labour Risk in Ghana and Côte d'Ivoire. ICI Labour market research study. Available at: http://www.cocoainitiative.org/wp-content/uploads/2016/12/market_research_ full_web.pdf

² Vigneri, M. and Holmes, R. (2009) Gender pathways out of poverty. Rural Employment. FAO, ILO. Available at http://www.fao-ilo.org/fileadmin/ user_upload/fao_ilo/pdf/Papers/20_March/Vigneri-Holmes-final.pdf

³ Barrientos, S.W & Asenso Akyere, K. (2008). Mapping sustainable production in Ghanaian cocoa, Report to Cadbury. Institute of Development Studies & University of Ghana. Available at https://www.cocoalife.org/progress/mapping-sustainable-production-in-ghanaian-cocoa

⁴ Barrientos, S., and Adwoa Owusuaa, B. (2016) Promoting Gender Equality in the Cocoa-Chocolate Value Chain: Opportunities and Challenges in Ghana. GDI Working Paper 2016-006. Manchester: The University of Manchester. Available at http://hummedia.manchester.ac.uk/institutes/ gdi/publications/workingpapers/GDI/GDI_WP2016006_Barrientos_Bobie.pdf

⁵ Fountain, A.C. and Hütz-Adams, F. (2015) Cocoa Barometer 2015-USA Edition. Available at http://www.cocoabarometer.org/International_files/ Cocoa%20Barometer%202015%20USA.pdf

⁶ FAO (2012). Gender inequalities in rural employment in Ghana: an overview. Gender, Equity, and Rural Employment Division of FAO. Available at http://www.fao.org/docrep/016/ap091e/ap091e00.pdf

⁷ Fair Labor Association (2015). Evaluer la situation actuelle des femmes et des jeunes agriculteurs et l'état nutritional de leurs familles dans deux communautés productrice de cacao en Côte d'Ivoire. Rapport preparé par Fair Labour Association, Juillet 2015. Available at http:// www.fairlabor.org/sites/default/files/documents/reports/femmes_et_des_jeunes_nutrition_dans_communautes_de_dacao_juillet_2015.pdf

⁸ The WEAI is a survey-based index designed to measure the empowerment, agency, and inclusion of women in the agricultural sector. The WEAI can also be used more generally to assess the state of empowerment and gender parity in agriculture, to identify key areas in which empowerment needs to be strengthened, and to track progress over time. The A-WEAI is a shorter, more streamlined version of WEAI, which uses the same empowerment domains but a reduced number of indicators. Source: Alkire, S., Malapit, H., Meinzen-Dick, R., Peterman, A., Quisumbing, A., Seymour, G. and Vaz, A. (2015). Instructional Guide on the Women's Empowerment in Agriculture Index. Available at https://www.ifpri.org/sites/default/files/Basic%20Page/weai_instructionalguide_1.pdf

⁹ Time-constraints did not allow us to have separate focus group discussions for only-male and only-female participants.

¹⁰ Although this set-up helped us to tease out gender differences, based on our experience, we believe that it might have led to an over-emphasis on gender differences and less focus on teasing out joint household strategies.

14.1 Differences between male- and female-headed households

In this section we summarise the reported statistically significant differences between male and female-headed *households* presented in the previous chapters, and their relevance.

In Chapter 3 (Respondent and household demographics), we showed that 95% of male respondents in Ghana self-identified as the household head, compared with 45% of female respondents. In Côte d'Ivoire, 90% of male respondents said they were the household head, compared with 26% of female respondents. Some authors have argued that making comparisons between female- and male-headed households introduces a possibly spurious comparison between households that differ in many other ways.¹¹ 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.¹² Our finding generally corresponds with other studies and reflects cultural norms whereby, in marriage, the male normally self-identifies as the household head.¹³

This also suggests that 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, we found differences in marital status between male and female heads. While male heads are usually married, most female heads are not. Around three quarters of female heads in both countries are single, divorced or widowed. Perhaps unexpectedly, one quarter of female heads reported being married, and it may be that they consider themselves to be the co-head.

We find that the average size of a female-headed household is indeed smaller than that of a male-headed household. In Ghana, female-headed households had an average of 5.10 household members compared with 6.04 members for male-headed households. 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.

In Chapter 3, we showed that a substantial difference was observed in educational attainment between the heads of female- and male-headed households. In both

¹¹ Doss, C.R. (2018) Women and agricultural productivity: Reframing the Issues. Development Policy Review 2018 Jan: 36(1): 35–50. Available at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5726380/

¹² Garner, E. and O Campos, A.P. de la (2014). Identifying the "family farm". An informal discussion of the concepts and definitions. Food and Agriculture Organization of the United Nations. Available at http://www.fao.org/3/a-i4306e.pdf

¹³ Doss, C.R. (2018) Women and agricultural productivity: Reframing the Issues. Development Policy Review 2018 Jan: 36(1): 35–50. Available at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5726380/

countries almost half of the female heads reported having attained no formal education, compared to 21% of the male heads in Ghana and 30% of the male heads in Côte d'Ivoire. 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.

In Chapter 4 (Food security and nutrition) we compared the household nutritional status of male- and female-headed households by measuring the dietary diversity of women of reproductive age.¹⁴ In Ghana, no statistically significant differences were found between these groups. However, in Côte d'Ivoire, female-headed households have a lower average dietary diversity score than male-headed households. 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*). 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 member's health, cognitive development and work capacity may be affected.¹⁵

In Chapter 5 (Crop choice and diversification), we presented the crops most frequently produced and discussed the relative importance of each. In Ghana, we found relatively few crops for which there are large, statistically significant differences between male- and female-headed households. Cocoa was produced by a high proportion of both male- (91%) and female-headed (86%) households. Cassava was produced by 84% of both male- and female-headed households. In Côte d'Ivoire, male-headed households were much more likely to produce cocoa (73%) than femaleheaded 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.

In terms of the 'most important' or 'second most important' crop, in Ghana femaleheaded households and male-headed households both prioritized cocoa similarly. No particularly striking differences were found for any of the main crops. However, in Côte d'Ivoire, approximately twice as many male-headed households identified cocoa as one of their most important crops compared with female-headed households. Instead, about twice as many female-headed households identified cassava as one of their most important crops as male-headed households. We know from Chapter 7 (The importance of cocoa), that cocoa production has a number of advantages, both in terms of the income it generated and security it provided. Relevant questions are

¹⁴ For the nutrition questions, following the MDD-W methodology, we only collected responses of female respondents between 15-49 years old. ¹⁵ Haas, J. and Brownly, T. (2001). Iron Deficiency and Reduced Work Capacity: A Critical Review of the Research to Determine a Causal Relationship.

¹⁵ Haas, J. and Brownly, T. (2001). Iron Deficiency and Reduced Work Capacity: A Critical Review of the Research to Determine a Causal Relationship. In the Journal of Nutrition, Volume 131, Issue 2, 1 February 2001, Pages 676-690. Available at https://doi.org/10.1093/jn/131.2.676S

what explains this lack of interest in cocoa among female-headed households in Côte d'Ivoire, and what are the potential barriers for female-headed households to access cocoa production?

In Chapter 6 (Land), we reported differences in land sizes and ownership between male- and female-headed households. In Ghana and Côte d'Ivoire, both femaleheaded and male-headed households in cocoa growing areas own a plot of land. In Ghana, a slightly higher proportion of female headed households (91%) reported being a land owner than male headed households (85%) (*significant*). In Côte d'Ivoire, 95% of the female-headed households is a land owner, versus 98% of the male-headed households (*significant*). Our findings suggest that the narrative 'women typically don't own land' is not accurate for female-headed households. However, we did observe differences in terms of the size of the land cultivated and owned by male- and female-headed households.

In terms of all land (both cocoa and non-cocoa land), female-headed households in Ghana own a little less land on average (3.49 ha), compared with male-headed households (4.28 ha). When running a regression analysis and controlling for other variables, female headed households were found to own around half a hectare less land than male headed households. In Côte d'Ivoire, differences in the amount of all land owned were more pronounced. Female-headed households own, on average, 4.54 ha of land, compared with 8.16 ha for male-headed households. When running a regression analysis and controlling for other variables, female headed households were found to own around 2.5 ha less land than male headed households.

In terms of cocoa land only, we find that in Ghana male-headed households cultivate more cocoa land (3.77 ha) than female- headed households (3.02 ha). However, we find no statistical differences in the amount of cocoa land owned between male and female headed households. The additional cocoa land cultivated by male-headed households can be explained by a higher rate of abunu sharecropping. A regression analysis controlling for other variables confirms these findings. In Côte d'Ivoire, we find no statistical differences between male and female headed households in the amount of cocoa land cultivated or the amount of cocoa land owned. This is because the sample size of female headed households producing cocoa in Côte d'Ivoire is too small.

It is important to note that in Chapter 13 (Farmer profiles and cluster analysis), we find that in Ghana differences in land size between male and female headed households are not systematic. Rather, 'male-headed typical' and female-headed households are quite similar. There is, however, a small proportion of (almost exclusively) 'male-headed large' households which have substantially larger plots of land, which pulls up the overall average for male-headed households. In Chapter 8 (Cocoa production practices) there were found to be no statistical differences between the proportion of male- and female-headed cocoa households undertaking most cocoa production activities. However, a slightly higher proportion of male-headed households (54%) reported applying herbicide than female-headed households (39%) (highly significant), using fungicides (male-headed 75%, femaleheaded 66%, highly significant) and doing pruning (male-headed 84%, female-headed 72%, highly significant). In Côte d'Ivoire, the only cocoa activity where we find statistically significant differences between male and female-headed households is in herbicide application, which was carried out by 33% of male-headed households and only 15% of female-headed households (highly significant). This finding should not be confused with who - men or women - actually provide the labour for each activity, which is discussed below. Furthermore, it should be noted that, while we find little statistical difference between male- and female-headed cocoa households in terms of activities undertaken, the sample size of female-headed cocoa households is quite small. This is due to the relatively small proportion of female-headed households that reported growing cocoa in Côte d'Ivoire. What our findings do suggest is that, particularly for Ghana, male-headed households apply good agricultural practices at a somewhat higher rate than female-headed households, which we would expect to result in higher yields.

In Ghana, for about half of the production activities there was found to be statistically significant differences in hired labour use between male- and female-headed cocoa households, although often the differences were small. Around 20% more female-headed households used hired labourers than male-headed households for the application of liquid fertiliser, herbicide, pesticide and fungicide. Female-headed households also hire labourers for pruning much more frequently. This suggests the hypothesis that female-headed households need to hire more labour is valid, which increases their labour costs. Differences between male- and female-headed household on hired labour for Côte d'Ivoire was not presented due to the low number of female-headed households producing cocoa as one of their most important crops.

In Chapter 9 (Cocoa producer groups, certification, training and credit) we found low membership rates of cocoa producer groups, particularly in Ghana. Male-headed households tend to participate more in such groups than female-headed households (7% versus 11%). We see the same trend in Côte d'Ivoire, where 13% of femaleheaded households reported that someone within their household was member of a cocoa producer group, versus 22% of the male-headed households. However, this difference was not significant due to the low number of observations.

In Ghana we found significant differences between male- and female-headed households who are certified; 38% of male-headed households reported they were certified compared with only 20% of female-headed households. However, both male- and female-headed households reported 'no certification' at similar rates, with the difference being the proportion of female-headed households that "didn't know" whether or not their cocoa was certified. In Côte d'Ivoire, comparisons between male and female-headed households are not particularly valid as so many respondents stated "don't know", we suggest that the concept of certification is not well understood by many. In this same chapter, we found no statistical difference in the proportion of male-headed and female-headed households borrowing money in either country in the past year.

In relation to training, we found that in Ghana significantly more male heads received training over the last 5 years than female heads, 53% versus 31% (*highly significant*). In Côte d'Ivoire, a much lower percentage of heads received training. The difference between male and female heads was not significant due to the low number of observations.

In Ghana, 29% of the female-headed households borrowed some money last year, versus 26% of the male-headed households. In Côte d'Ivoire, 26% of female-headed households borrowed some money, versus 24% of the male-headed households. This suggests that current primary barriers to accessing credit faced by female-headed households are not dissimilar to those faced by smallholders generally. In both countries, the amounts of money that female-headed households borrow is lower than male-headed households (*significant*).

In Chapter 10 (Production and yield), we found for Ghana, a difference of around 58 kg/ha in yields, between male-headed households (432kg/ha) and female-headed households (374kg/ha) (*highly significant*). However, it is important to consider what differences in practices are actually driving differences in yields. The regression analysis showed that, in Ghana, female-headed households produce, on average, approximately 63 kg/ha less than male-headed households, after controlling for other variables (*highly significant*). The model cannot explain exactly what combination of factors has caused female-headed households to have lower yields (many variables are already controlled for), but there are a number of reasonable factors to consider including amount of inputs used, number of labour days invested, quality of labour used, and knowledge and application of good practices, as well as factors such as reporting bias (female respondents reported "don't know" at a significantly higher frequency than men).

In Côte d'Ivoire, we find no statistically significant differences in yield between maleheaded (351kg/ha) and female-headed households (386kg/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.

In Chapter 12 (Household income, poverty and wealth), in both Ghana and Côte d'Ivoire, we found no statistically significant differences between male- and female-

headed households in the Poverty Probability Index (PPI) poverty likelihood nor in the Demographic and Health Service (DHS) wealth index. This suggests that male and female-headed households tend to have a fairly similar poverty and wealth profile.

In Chapter 13 (Farmer profiles and cluster analysis), a cluster analysis of cocoa household revealed that there are essentially three clusters in our sample. These are female-headed households, male-headed typical, and male-headed large households. In Ghana, we find that female-headed households (USD 960) earn less net income from cocoa than male-headed, typical households (USD 1,275) after hired labour and input costs are deducted. While female-headed households do tend to have slightly more land under cocoa than male-headed, typical households, they tend to have lower yields on average. Female-headed households also tend to have higher hired labour costs than male-headed, typical households, which is probably due to the lower availability of household labour or because certain production activities are more physically challenging. The male-headed, large group (USD 2,873) earns considerably more from cocoa than both of the other groups. This group tends to have much more land under cocoa, but does have lower productivity per hectare. From all income sources (cocoa and non-cocoa), we estimate that, on average, male-headed, typical households earn USD 2,128 per year compared with female-headed households who earn an average of USD 1,630 per year. Although the household mean is lower, the distribution of household incomes is quite similar between these groups. We should also recall that female-headed households have fewer household members and hence have lower household expenditures meaning they are not necessarily worse off on a per person basis. Male-headed, large households earn USD 4,749 per year, on average. However, there is large variability across this group.

In Côte d'Ivoire, the number of observations within the female-headed analytical group was found to be too small. Therefore, we were not able do a similar comparison between female- and male-headed households as was done for Ghana. The cluster analysis instead looked at differences between male-headed, typical, and male-headed, large households.

14.2 Intra-household dynamics – men and women within the same household

Different studies point out the need to recognise 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".¹⁶ With respect to access to and control over benefits, a concern is who actually sells farm products, and who decides what happens to the income generated in this way.^{17,18}

In order to understand intra-household dynamics and decision-making processes, in our survey we included questions on labour division and decision-making in relation to cocoa. In focus group discussions, we further probed on which tasks are typically done by men or women, and why. This led to a further discussion on the time involvement of women and men in different income-generating activities, access to and control over key resources and their decision-making power.¹⁹ The focus group discussions gave us additional insight in how cultural norms shape gender differences.

14.2.1 Labour division and decision-making in cocoa

Women in Ghana and Côte d'Ivoire provide a major part of the cocoa workforce, often as supporters of their husbands on family farms.^{20,21} An often cited study by Dalberg (2012) reports that, in West-Africa, women provide 45% of the labour for cocoa production.²²

In the household survey, respondents were asked, "Who did [the activity] - men, women or both?". In Chapter 8 (Cocoa production practices), we showed that in Ghana both male and female respondents reported that men participate in virtually all cocoa production activities at very high rates (98-100%). Male and female respondents agreed that women typically engage in cocoa production activities at much lower rates than men. In Ghana, the most common activities that women participate in are planting, granular fertiliser application, manure application, pod breaking, transporting and drying. These are almost always done alongside men. Women rarely participate in heavy, labour intensive activities such as land clearing, and have much lower participation in pruning and the application of inputs. Our data does not allow us to measure the actual labour days worked on the cocoa farm by men and women.

¹⁶ Meinzen-Dick, R., Quisumbing, A., Behrman, J., Biermayr-Jenzano, P., Wilde, V., Noordeloos, M., Ragasa, C. & Beintema, N. (2011). Engendering Agricultural Research, Development, and Extension: Priority Setting, Research & Development, Extension, Adoption, Evaluation. Washington: IFPRI. Available at http://www.ifpri.org/publication/engendering-agricultural-research-development-and-extension-0

¹⁷ Eerdewijk, A and Danielsen, K (2015). Gender matters in farm power – gender dynamics in small-scale mechanization, KIT Amsterdam. Available at www.kit.nl

¹⁸ Danielsen, K. (2012) Gender equality, women's rights and access to energy services - An inspiration paper in the run-up to Rio+20, Danish Ministry of Foreign Affairs. Available at https://www.kit.nl/wp-content/uploads/2018/08/1975_Gender-Rights-and-Energy-Report-final.pdf

¹⁹ Household roles and decision-making was discussed in total in 25 focus group discussions, in which approximately 1,000 farmers participated ²⁰ African Development Bank (2015) Economic Empowerment of African Women through Equitable Participation in Agricultural Value Chains. Available at https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/Economic_Empowerment_of_African_Women_through_ Equitable_Participation_in___Agricultural_Value_Chains.pdf

²¹ Barrientos, S. and Bobie, A.O. (2016) Promoting Gender Equality in the Cocoa-Chocolate Value Chain: Opportunities and Challenges in Ghana. Global Development Institute Working Paper Series 2016-006 October 2016. University of Manchester. Global Development Institute. Available at http://hummedia.manchester.ac.uk/institutes/gdi/publications/workingpapers/GDI/GDI_WP2016006_Barrientos_Bobie.pdf

²² Dalberg Global Development Advisors (2012) Analysis of IFPRI (2002) 'Empowering Women and Fighting Poverty: Cocoa and Land Rights in West Africa', Dalberg Global Development Advisors Internal Document.

In Côte d'Ivoire, men were reported to have very high participation rates (97-100%) for virtually all cocoa production activities. Women engage in all cocoa production activities much less frequently than Ivorian men, and also less frequently than women in Ghana. In Côte d'Ivoire, the main activity where women play a substantial role is pod breaking. However, for Côte d'Ivoire, the level of involvement of women and men in cocoa production activities, depend on the type of household. Not surprisingly, in female-headed households the involvement of women is higher than in male-headed households. Comparing to male-headed households, in female-headed households the involvement is particularly higher in planting and to a lesser extent, also in land preparation, drying and fermentation.²³ The narrative that, in Côte d'Ivoire, women provide an important share of the labour in cocoa does not seem to be correct.

Virtually all focus group discussions, in both Ghana and Côte d'Ivoire, said that men usually spend more time working on cocoa than women. It was often said that men "take the lead", and go to the farm earlier in the morning (while women take care of the household). It was argued that men, as the head of the household, assume responsibility for maintaining the cocoa farm well and "ensuring the household has a good income". There seems to have been agreement that because of the physical nature of the work, cocoa is 'a man's job'; women are seen as 'helpers'.

Besides doing a number of "lighter tasks", as 'helpers' women may contribute to young cocoa farms in the first few years, including manual weeding. In these early stages, the young cocoa plants are often intercropped with food crops, such as plantain and cassava. In addition, women were said to prepare food for the men and workers, and sometimes fetch water for the spraying on the farm.

"Women help the men in almost everything, harvesting, carrying, breaking the pods, fermenting. When the men are doing the work on the farm, the women often prepare the food in the field. The women and men go together to the farm." (FGD, Ghana)

"During harvest it is the responsibility of the women to gather the pods and bring to the assembly point. During pod breaking women do the cooking for the men, sometimes during harvest the women assist the men, the women also do the extracting of the beans, and drying the beans when men not around." (FGD, Ghana)

"Women plant food crops at the start of the plantation, women do the weeding for the first 3 years when you can still plant food crops. Women also help with the planting, gathering of the pods, prepare for pod breaking, help drying, as well as transportation of beans to drying point and to selling point." (FGD, Côte d'Ivoire)

²³ https://cocoalivelihoods-cocoa.kit.nl/#16_production_activities

The difference between Ghana and Côte d'Ivoire is that in Ghana women seem to work more alongside their husbands throughout the season, while in Côte d'Ivoire more emphasis was put on women having a role only at the beginning and end of the production-cycle, while men do "all the hard work".

"The men do everything. They plant the cacao - they clear and clean, they dig, they apply fertiliser, pesticides and all the other chemicals." (FGD, Côte d'Ivoire)

"The work is hard, and not done by women. Even the women that own land, hire men to do the work." (FGD, Côte d'Ivoire)

Survey respondents were also asked 'Who sells the cocoa - men, women or both?'. This was asked with the assumption that selling the cocoa is a good predictor for having (more) control over the income that is generated with cocoa. Our data suggests that the status of being the household head is the strongest predictor of who sells the cocoa (although sex is also an important predictor of whether or not one is the household head in the first place) (*Table 14.1*).

Table 14.1 Decision making, who sells the cocoa, by sex of the household head

	Ghana female- headed household	Ghana male- headed household	pvalue	sig	Côte d'Ivoire female- headed household	Côte d'Ivoire male- headed household	pvalue	sig
Men sell the cocoa	63%	97%	0.00	***	50%	100%	0.00	***
Women sell the cocoa	73%	30%	0.00	***	72%	1%	0.00	***
std.error	3%	1%			11%	1%		
Ν	196	976			18	487		

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

In focus group discussions, "men being the head of the household" and "being landowner", were mentioned as the main reason why men sell cocoa. In Ghana, "women cannot read the scales" came up as another reason.

In Ghana, the household survey data shows that general decision-making on cocoarelated issues often involves men and women in the household. In male-headed households, men were virtually always involved in decision-making, but so were women in 68% of the cases. Likewise, in female-headed households, women were nearly always involved in decision-making, but so were men in 50% of the cases. This suggests a reasonable degree of cooperative decision-making.

In Côte d'Ivoire, our survey data shows a greater contrast in terms of male and female decision- making on cocoa-related issues. 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. Likewise, in male-headed households,

men almost always sell the cocoa without involvement of women in the household. In female-headed households, women make cocoa-related decisions most of the time; however, we have a low number of such observations in our sample.

	Ghana female- headed household	Ghana male- headed household	pvalue	sig	Côte d'Ivoire female- headed household	Côte d'Ivoire male- headed household	pvalue	sig
Men make decisions	50%	97%	0.00	***	38%	99%	0.00	***
Women make decisions	91%	68%	0.00	***	83%	13%	0.00	***
std.error	2%	1%			6%	1%		
Ν	232	1060			47	860		

Table 14.2: Decision-making on cocoa issues, by sex of the household head

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

For comparable cash or non-food crops, such as coffee and rubber in Côte d'Ivoire, we see similar patterns in terms of decision-making. Generally, the respondents indicate that men are typically the head of the households and the landowner. Men were said to 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.

14.2.1.1 Access to land

Ownership of land goes hand-in-hand with decision-making power and control over the income that comes from cultivating the land. Also, land ownership is usually a requirement to access a farmer organisation, training or other services. In 2015, the African Development Bank reported that, in Ghana, approximately 18% of cocoa farms are owned by women, and only 11% of women owners or labourers in Ivoirian cocoa production participate in agricultural training programmes.²⁴

In Ghana's constitution it is stated that assets jointly acquired during marriage shall be distributed equitably between the spouses upon dissolution of the marriage and a spouse shall not be deprived of a reasonable provision out of the estate of a spouse whether or not the spouse died having made a will.²⁵ In addition, the Intestate Succession Law guarantees the right of succession for the surviving spouse, children, parents and the customary family and a greater portion of the property is shared among the surviving spouse and children. In Côte d'Ivoire, the Rural Land Law officially granting women rights equal to those of men. Despite these provisions in the legal frameworks, in practice discriminatory customary law often prevails.²⁶

²⁴ African Development Bank (2015) Economic Empowerment of African Women through Equitable Participation in Agricultural Value Chains. Available at https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/Economic_Empowerment_of_African_Women_through_ Equitable_Participation_in___Agricultural_Value_Chains.pdf

²⁵ Aduamoah – Addo, L. (2016) Culture, rural women and land rights in Ghana. WiLDAF Ghana. Regional News of Tuesday, 4 October 2016. Available at https://www.ghanaweb.com/GhanaHomePage/NewsArchive/Culture-rural-women-and-land-rights-in-Ghana-474618#

²⁶ Elizabeth Kiewisch (2015) Looking within the household: a study on gender, food security, and resilience in cocoa-growing communities, Gender & Development, 23:3, 497-513, DOI: 10.1080/13552074.2015.1095550

Widows and her children are the main sufferers of this tradition, but inheritance practice can vary from community to community.^{27,28}

In our study, during focus group discussions, this tradition was confirmed. In a married situation, the land title (or arrangement) is usually in the man's name.²⁹

"Landowners prefer to give the land to the men as they are afraid that the women lack the strength to take proper care of the farm land and that it would be destroyed or they would get lower revenues from the sharecropper." (FGD, Ghana)

In focus group discussions, a number of specific constraints for women to access land came up. In Ghana, participants emphasised physical constraints, the customary system and the cultural norms. Also, in Côte d'Ivoire, participants highlighted the land-inheritance system and the tradition that land usually belongs to men as main reasons why men usually are the landowner. Sometimes focus group participants mentioned women's financial constraints as reason. In Ghana and Côte d'Ivoire, occasional reference was made to the national laws, allowing women to inherit land when husbands or fathers leave it to her in their will.

"Only in the case where there are no sons, then the land goes to the daughter, otherwise always to sons and not to the daughter." (FGD, Ghana)

"Women are said to follow their husbands as the men is head of the household. This can mean that women leave 'their land' behind." (FGD, Ghana)

"Because men cultivate crops that bring in more money, they can permit themselves to buy land." (FGD, Côte d'Ivoire)

"When the husband or father dies, and he has no sons, the land goes to the uncle or another male member of the family. In no way will the land become the property of a woman." (FGD, Côte d'Ivoire)

"It is a traditional thing that the men own the land." (FGD, Côte d'Ivoire)

Due to these constraints for women to access land, a more common way for married women to access (a small part of) land is through gifting.

Our qualitative data does not explain to what extent women's constraints in ownership of land impacted their participation in producer group and access to services, such as training and access to finance.

²⁷ African Development Bank (2015) Economic Empowerment of African Women through Equitable Participation in Agricultural Value Chains. Available at https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/Economic_Empowerment_of_African_Women_through_ Equitable_Participation_in___Agricultural_Value_Chains.pdf

²⁸ Aduamoah – Addo, L. (2016) Culture, rural women and land rights in Ghana. WiLDAF Ghana. Regional News of Tuesday, 4 October 2016. Available at https://www.ghanaweb.com/GhanaHomePage/NewsArchive/Culture-rural-women-and-land-rights-in-Ghana-474618#

²⁹ 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.

14.2.2 Labour division and decision-making in relation to 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 Ghana and Côte d'Ivoire, a fairly high proportion of respondents reported selling at least some of their staple food crops, including cassava (Ghana 72%, Côte d'Ivoire 52%), plantain (72%, 38%), maize (62%, 34%), yam (34%, 27%) and rice (80%, 46%).

A recent survey by the Consultative Group to Assist the Poor (CGAP) shows for Côte d'Ivoire 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.³⁰ CGAP reports that in Côte d'Ivoire, for female members of male-headed cocoa households cassava and rice are considerably important crops for these female farmers, while being perceived as less important for the family by the male members.

Usually, both men and women are involved in food production, but in different roles, depending also on the crop type. Our 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 or palm oil).

"Women can do rice farm, she would hire men as labourers. So the men would do the work. It is culturally determined that rice is a man's crop" (FGD, Ghana)

"Women also do their own rice, but men have some tasks in it as well. All the other food crops are for the women. They intercrop it with cocoa, but also have specific fields for cassava etc." (FGD, Côte d'Ivoire)

"The men do the land clearing for the cassava. The men plant the yam in the same field while the women do the cassava. The men do harvesting of the yam and they do the cassava together." (FGD, Côte d'Ivoire)

In discussing food crops, it sometimes came up that cassava is a "woman's crop". Cassava production is perceived as easier than cocoa, and requires less labour. Cassava is intercropped with cocoa on young cocoa farms; young cocoa farms are normally managed by women. Men usually support their wives in the land preparation and harvesting.

³⁰ Riquet, C., Musiime, D., and C. Marita (2017) National Survey and Segmentation of Smallholder Households in Cote d'Ivoire. Consultative Group to Assist the Poor (CGAP). Available at https://www.cgap.org/sites/default/files/researches/documents/Working-Paper-Survey-and-Segmentation-Smallholders-Coted%2527Ivoire-Jul-2017.pdf

"Cassava does not require much weeding, it is an easier crop for women." (FGD, Ghana).

"The work of cassava is not as difficult as the work of cocoa, so women can do it. When they process into cassava powder, the women have time the time do it, also to prepare the food." (FGD, Ghana)

"She is the mother of this crop [cassava]- she gains from this product" (FGD, Côte d'Ivoire)

"Cassava is our primary food source, but we sell more than we eat. We[women] use the money to support our husbands, pay school fees, lend money to each other, pay health care costs, buy clothing, and we buy food for the household." (FGD, Côte d'Ivoire)

In the focus group discussions, we did not discuss other food crops in great detail. In general, 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, in Côte d'Ivoire, 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. On further analysis, we are 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.

"The women have the responsibility to do it [food crops]. Because the women are supposed to feed the family, you give the woman the responsibility so she can more easily manage the food crops as she knows what is needed for the household." (FGD, Ghana)

"When it comes to planting pepper, the farm does not need clearing (there is no forest), she can hire labour and do the rest herself." (FGD, Ghana)

"Food crops belong to the women while cash crops belong the men." (FGD, Côte d'Ivoire)

In Ghana, women were seen as contributing to decisions on food crop production by most focus groups. This is predominantly because women are the ones that are perceived to spend most time on food crop production, sell the food at the market and have greater control over the income that is earned with selling food crops. It was also argued that women are more knowledgeable on how to produce and trade food crops, and ensure "good bargain for a good price".

When it comes to marketing of food crops, likewise in Côte d'Ivoire this is mainly seen as a women's task, although it depends on the type of crop. For example, in Côte d'Ivoire, men are actively involved in rice and maize marketing.

"The rice is mostly sold by the men, maize as well. All the other food crops are sold by the women." (FGD, Côte d'Ivoire)

The money earned with selling food crops was said to be for household expenditures. Occasionally, it was put forward that men are not involved in the marketing as they "cannot sit behind the goods on the market" or "a man cannot carry food crops on his head".

14.2.3 Labour division and decision-making in non-farm economic activities

Women tend to be more actively involved in running small businesses than men. In Ghana and Côte d'Ivoire, the largest group within the households earning income from small businesses are females between 30 and 60 years old. According to male participants, this is partly because women have more time for this, as they are less involved in, for example, cocoa or rubber production.

"Women have more time to do other things that aren't cocoa or rubber." (FGD, Ghana)

"Women are traditionally declared to be a helper to the men, that is way they help in creating income. Therefore the woman who does extra activities tries to provide as much extra income as possible." (FGD, Ghana)

"They [women] do these activities to help with income when they have spent the revenue from cocoa." (FGD, Côte d'Ivoire)

"They [women] do their little business from 6 till 10 am then they go to the field. From 2 till 6 pm, they sell again." (FGD, Côte d'Ivoire)

In Ghana and Côte d'Ivoire, 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 primarily involving 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 more physical. A number of other 'male' jobs were also mentioned, such as, illegal mining, bicycle repair, tailoring, barbershop, electrical work and taxi driver.

In Ghana and Côte d'Ivoire, men and women were both said to be decision-makers in relation to non-farm economic activities. In Ghana, in some focus groups, the men were seen as the main decision-maker, because, as the head of the household, they are financially responsible for the family

"When our wives run at a loss, we have to pay their debts." (FGD, Ghana)

In Côte d'Ivoire, it was generally emphasised that men and women make decisions themselves, but first discuss together what is the best way to make some extra money.

Because these non-farm economic activities are seen as the main source of income for women, it was said to be only logical that women make most of the decisions. However, others argued that it is still common that women need permission, or should at least consult their husbands about what they will sell.

14.2.4 Labour division and decision-making in domestic work

In a study by Vargas Hill and Vigneri (2011), the authors calculated the weekly hours spend on domestic chores by gender for Ghana. They based this 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. It also presents the high labour burden for women, which might affect them in acquiring more income or education and in their well-being.³¹

Domestic chores:	Women	Men
Fetch wood + water	1.27	0.48
Cleaning	1.32	0.40
Cooking	8.04	1.24
Errands	1.01	0.93
Child care	5.12	2.83
Elderly care and care of the sick	1.46	0.40
Other	0.13	0.98
Total household	26.06	10.22

Table 14.3 Average weekly hours spent on domestic chores by gender³²

In Ghana and Côte d'Ivoire, focus group participants agree that women are traditionally the ones who do most domestic work. Household activities involve cleaning, cooking, sweeping, dish washing, washing husbands' clothes, taking care of the children and sending them to school, and fetching water.

"It is not a good job for a man to help." (FGD, Ghana)

"Women do all, and go to the farm." (FGD, Ghana)

"Men do not do household tasks. That is just how it is." (FGD, Côte d'Ivoire)

"Men know how to do all the things they do, but if other men in the community know that you cook and clean, they mock you - so women do it and very few men help." (FGD, Côte d'Ivoire)

³¹ Vargas Hill, R. and Vigneri, M. (2011) Mainstreaming gender sensitivity in cash crop market supply chains. ESA working paper No. 11-08. Available at http://www.fao.org/3/a-am313e.pdf
³² Ibid

The traditional task division does not necessarily mean that men do not do anything in the household. In Ghana, for example, men were said to help with "pounding the fufu". In Côte d'Ivoire, in almost half of the focus group discussions it was mentioned that men gather firewood, and sometimes help their wives with washing their children and other (small) tasks ("when the woman is tired, or the woman has too much work").

In some of the focus group discussions, particularly in Ghana, it became clear that the current division of tasks was perceived by the women as unfair, and they think men should assist more. During one of the group discussions in Ghana, in the Ashanti Region, participants observed a cultural change, and said that men increasingly help in household activities and women do more and more incomegenerating activities.

Although in Ghana, the groups generally agreed that women are the ones that do most of the domestic activities, both men and women are involved in the decisionmaking on how to spend the household money and what to eat. It is common that men provide money for household expenditures.

"The men will give the money and women and children decide what to do with it" (FGD, Ghana)

"Men don't do anything, but provide the money." (FGD, Ghana)

In Côte d'Ivoire, in the majority of groups, women were seen as the one usually making the decisions related to domestic tasks. 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. In the end the women decide what to do with the money. In some groups it came up that women need to ask permission from their husbands to purchase for example fish, or other more expensive products.

"It's the women who 'represents' the household, she knows what is best, she needs to make the right decisions to make sure the household is doing well" (FGD, Côte d'Ivoire)

"Women are the master of the house." (FGD, Côte d'Ivoire)

"Once the man has given money to the woman to take care of the household, he does not do anything anymore." (FGD, Côte d'Ivoire)

"Both discuss big decisions - but women have the final say when it comes to the household - like when to put kids to school, what to buy when it comes to food." (FGD, Côte d'Ivoire)

14.3 Summary

To statistically analyse differences between male and female-headed cocoa producing households a sufficient sample of respondents is necessary. In our study we involved in 34% female respondents. However, for Côte d'Ivoire this turned out to be insufficient to generate statistically significant results because there were so few female-headed cocoa households within the sample of female respondents and within the overall sample.

Gender differences can be analysed both between male- and female-headed households as well as between men and women within the household. It is important for researchers to be clear about their unit of analysis when discussing gender issues.

In marriage, men and women usually recognise the man as the household head. Being the head of the household typically implies an important role in decisionmaking and is often related to ownership over assets such as land, and taking up a management role on the farm.

Female-headed households typically have a smaller household size than male-headed households. Household size determines available household labour, production costs, the cost of living and household income.

In Ghana, cocoa is produced by a high proportion of both male- (91%) and female-headed (86%) households. Likewise, both male-headed and female-headed households identified cocoa as their first or second most important crop. In Ghana, we find few other crops for which there are large, statistically significant, differences between male- and female-headed households.

In Côte d'Ivoire, a greater proportion of male-headed households (73%) produce cocoa than female-headed households (36%). Twice as many male-headed households identified cocoa as one of the their most important crops compared with femaleheaded households. About twice as many female-headed households identified cassava as one of their most important crops as male-headed households.

The narrative 'women typically don't own land' seems not to be accurate for femaleheaded households. However, our data does confirm differences in terms of the size of the land cultivated and owned by male- and female-headed households, particularly in Côte d'Ivoire.

Our findings suggest that, particularly for Ghana, male-headed households apply good agricultural practices at a somewhat higher rate than female-headed households, which explains why male-headed households produce, on average, higher yields. In Ghana, we find female heads, on average, approximately 63 kg/ha less cocoa than male heads after controlling for all other variables (*highly significant*). In Côte d'Ivoire, we find no statistically significant differences in yield between male-headed and female-headed households, possibly due to a very low number of observations.

In Ghana, female-headed households hire more labour, which increases their labour costs, although the differences with male headed-households are rather small. The main differences in hiring behaviour are seen in the spray application of liquid fertiliser, herbicides, pesticides and fungicides, for which about 20% more female-headed households hire labour than male-headed households. Female-headed households also hire labourers for pruning much more frequently. Differences between male- and female-headed household on hired labour for Côte d'Ivoire was not able to be analysed due to the low number of female headed households producing cocoa as one of their most important crops.

In Ghana and Côte d'Ivoire, we find no statistically significant differences between male and female-headed households in the Poverty Probability Index (PPI) poverty likelihood nor in the Demographic and Health Service (DHS) wealth index. This suggests that male- and female-headed households tend to have a fairly similar poverty and wealth profile.

In Ghana we estimate that male-headed, typical households earn USD 2,128 per year from all income sources, compared with USD 1,630 per year for female headed households. We should recall that female-headed households have fewer household members and hence have lower household expenditures meaning they are not worse off on a per person basis. Male-headed, large households earn USD 4,749 per year, on average.

There are **gender differences within households** with regard to participation in cocoa, food crop production, other income generating activities and domestic tasks.

In Ghana, men participate in all cocoa production activities at very high rates and 'take the lead', while women typically do so at lower rates. In Ghana, the most frequently mentioned activities that women participate in are planting, granular fertiliser application, manure application, pod breaking, transporting and drying. These are almost always done alongside men. Women rarely participate in heavy, labour intensive activities such as land clearing and weeding, and have much lower participation in the application of inputs.

In Côte d'Ivoire, women engage in cocoa production activities much less frequently than men, and less frequently than women in Ghana. In Côte d'Ivoire, in maleheaded households, the main activity where women play a role is pod breaking. Women in female-headed households are more actively engaged in cocoa production activities. For heavy labour and spraying these women would still hire male labourers. In Ghana and Côte d'Ivoire, important women's tasks are taking care of the young cocoa farm, including the intercropping with food and the weeding, preparing food for the men and workers, and fetching water for spraying.

In both countries, women are mainly involved in small (food) trade. In Ghana, men and women report a reasonably high a degree of cooperative decision-making on cocoa related issues. The head of the household (either man or women) is typically the one who sells the cocoa.

In Côte d'Ivoire, 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. Women in male headed households are almost never involved in selling cocoa.

The involvement of men and women in food crop production depends on the crop type. 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 (local) markets and or local processing of the food crops (e.g. cassava or palm oil), which gives them more control over the income generated with selling food crops.

Women tend to be more than men involved in small businesses and trade. For women, non-farm economic activities are an additional source of revenue, over which they generally have more control.

In Ghana and Côte d'Ivoire, women are traditionally the ones that do domestic work and usually make decisions related to domestic tasks.