

The importance of cocoa in a diversified farm

Demystifying the cocoa sector in Côte d'Ivoire and Ghana –
Preliminary data from a large-scale study to test common
hypothesis and uncover the realities of cocoa growing households

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Background

- There are many myths and assumptions about the (future of the) cocoa sector
- Data is often not shared, limited in scope or based on small sample sizes
- One of the risks is that programmes and policies are based on assumptions
- The aim of our study is to close part of the knowledge gap and share this data in the public domain
- The final research report, including the database, will be made publically available early 2018.

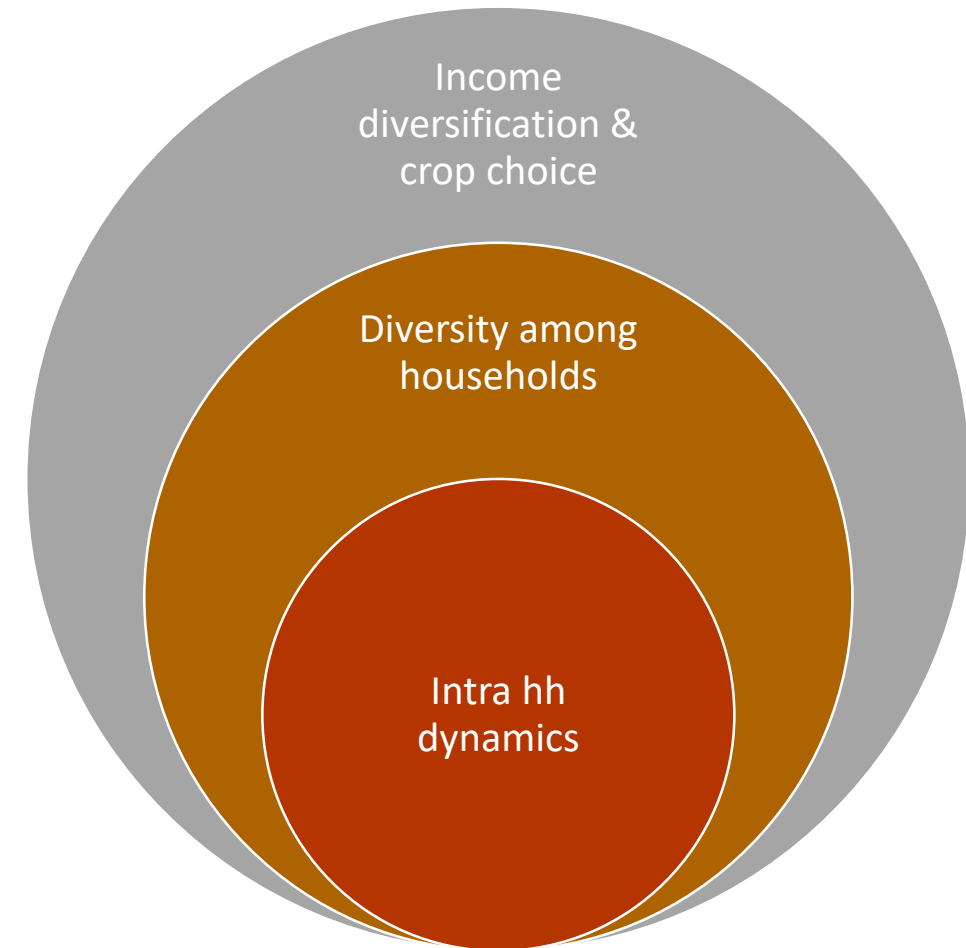


Research Approach & Questions

Large and reliable dataset (quantitative + qualitative) of households in cocoa producing areas in Ghana and Cote d'Ivoire:

1. Income diversification and crop choice
2. Diversity among households
3. Intra-household dynamics

Nutrition and gender are cross-cutting themes.



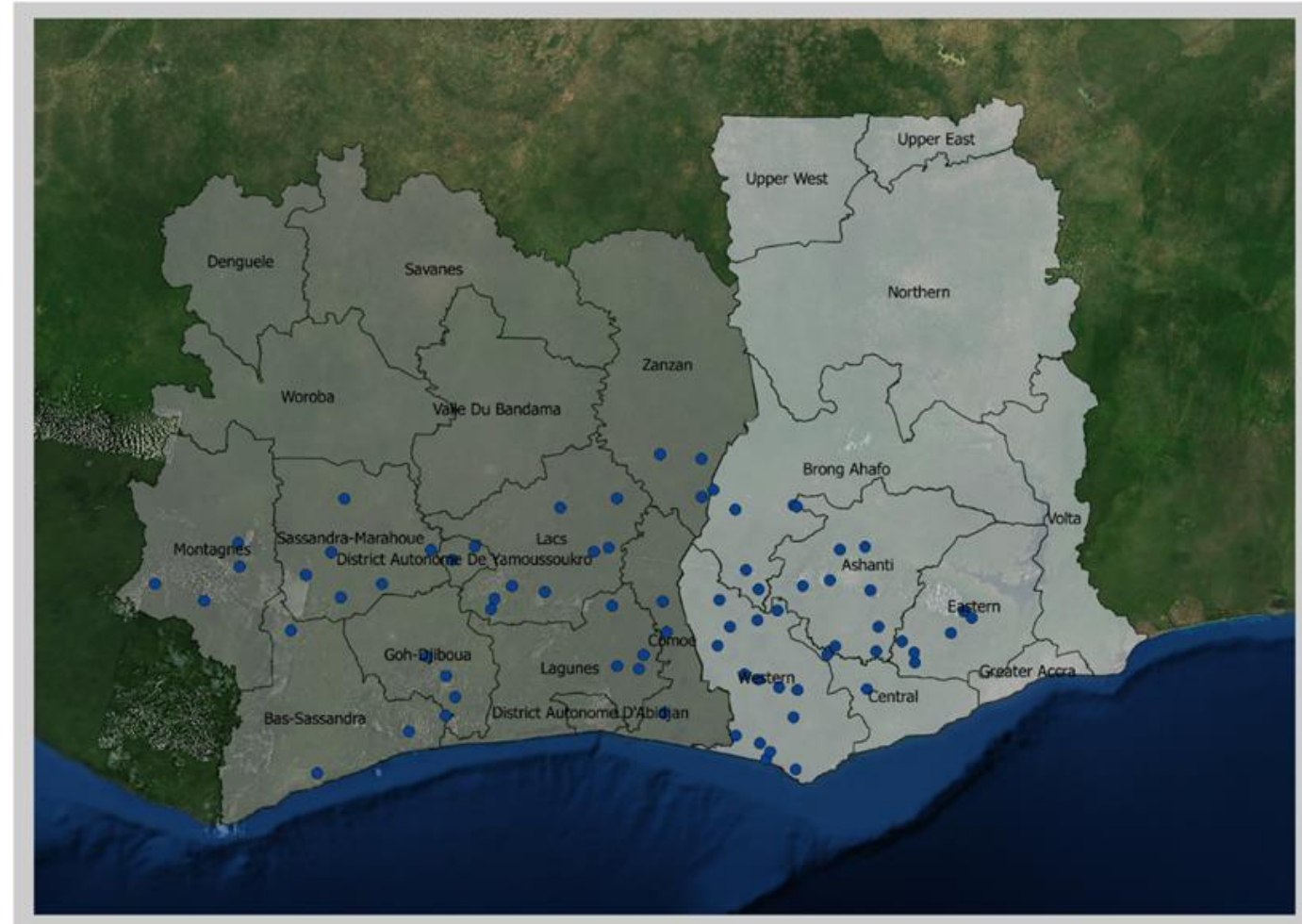
Fieldwork locations

Ghana

- Nov. 2016 - Jan 2017
- KIT and Agriculture and Lifecycle

Côte d'Ivoire

- Jan 2017 - March 2017
- KIT and Agricole Local Partner



Sampling

- Sample among rural households in cocoa growing areas.
 - 1560 Ghana + 1485 Côte d'Ivoire
 - Survey, 76 FGDs and 3 ethnographic studies
 - 1 respondent per household
 - 34% female respondents in both countries
- Cocoa producing regions
 - Weighing according to cocoa production
 - Villages per district
 - Random numbers per village (Village with highest numbers were selected)
 - Transect walk in villages (North, East, South, West) – 10 houses randomly sampled

Cocoa households and non-cocoa households

- **Our sample:** Rural Households in cocoa growing areas
- **Cocoa households:** Cocoa is their most important OR second most important crop → 73% of total sample
 - Ghana 84%
 - Côte d'Ivoire 61%



Income percentage from sale of cocoa for cocoa households

	Ghana Cocoa hh	Côte d'Ivoire Cocoa hh	p- valu e	signific ance
Mean	61%	66%	0,00	***
std.error	1%	1%		
N	1314	909		

“Need for income diversification”

- The impact of deforestation and difficulties of cocoa replanting (e.g. Ruf & Schroth 2015)
- Projected decrease in climate suitability of cocoa production for areas where cocoa is currently being produced (e.g. Schroth et al 2016;)
- The growing concerns about (periods of) food insecurity and malnutrition that seem to coincide with dependence on cocoa;
- Macro-economic studies who point out that the majority of farmers lives below the poverty line (e.g. Oomes et al 2016).
- Recent price drop and how this affects farmers' livelihoods.

Understanding current diversification patterns

- Cocoa was found to be the most important crop, or second most important crop for the majority of farmers
- Cocoa is the most frequently produced crop in both Ghana (90%) and Côte d'Ivoire (69%), There were also other frequently produced crops.

Crop diversity

	Ghana Cocoa HH	Ghana Non-HH	p- value	sig	Côte d'Ivoire Cocoa HH	Côte d'Ivoire Non-Cocoa HH	p- value	sig
Mean	5.08	4.60	0.01	***	6.09	5.46	0.00	***
std.error	0.07	0.17			0.11	0.12		
N	1318	242			910	575		

- Ivorian respondents have greater crop diversity than Ghanaian respondents
- In both Ghanaian and Ivorian cases, cocoa households feature greater crop diversification than non-cocoa households (*p-value* < 0.01).

Current crop combinations

Ghana

	Bananas	Cashews	Cassava	Chili	Cocoa	Coconut	Cocoyam	Eggplant	Maize	Okra	Oranges	Palm	Pepper	Pineapple	Plantain	Rice	Rubber	Tomatoes	Yam
Bananas		0	6	0	6	1	4	2	4	2	1	2	3	1	6	1	1	3	4
Cashews	0		3	0	3	0	2	1	2	1	1	1	1	0	3	0	0	1	2
Cassava	6	3		2	76	3	43	9	43	13	3	13	25	2	76	5	4	19	23
Chili	0	0	2		2	0	2	1	2	1	0	1	0	0	2	0	0	1	2
Cocoa	6	3	76	2		3	43	9	42	13	3	13	24	2	74	6	2	18	23
Coconut	1	0	3	0	3		2	1	2	1	0	2	2	0	3	0	1	1	1
Cocoyam	4	2	43	2	43	2		7	27	9	2	7	16	1	43	3	1	13	18
Eggplant	2	1	9	1	9	1	7		7	6	1	2	7	1	9	1	1	7	5
Maize	4	2	43	2	42	2	27	7		11	2	8	18	1	42	4	2	14	17
Okra	2	1	13	1	13	1	9	6	11		1	3	11	1	13	1	1	9	7
Oranges	1	1	3	0	3	0	2	1	2	1		1	1	0	3	0	0	1	1
Palm	2	1	13	1	13	2	7	2	8	3	1		4	1	12	1	1	4	5
Pepper	3	1	25	0	24	2	16	7	18	11	1	4		1	24	1	2	15	11
Pineapple	1	0	2	0	2	0	1	1	1	1	0	1	1		3	0	0	1	1
Plantain	6	3	76	2	74	3	43	9	42	13	3	12	24	3		4	3	19	22
Rice	1	0	5	0	6	0	3	1	4	1	0	1	1	0	4		0	1	1
Rubber	1	0	4	0	2	1	1	1	2	1	0	1	2	0	3	0		2	1
Tomatoes	3	1	19	1	18	1	13	7	14	9	1	4	15	1	19	1	2		9
Yam	4	2	23	2	23	1	18	5	17	7	1	5	11	1	22	1	1	9	

Côte d'Ivoire

	Beans other	Cashews	Cassava	Chili	Cocoa	Cocoyam	Coffee	Eggplant	Groundnuts	Maize	Okra	Palm	Plantain	Rice	Rubber	Tomatoes	Yam
Beans other		1	4	4	5	2	2	4	3	4	4	1	3	4	1	2	2
Cashews	1		13	14	9	6	2	9	8	9	12	0	10	2	1	7	16
Cassava	4	13		42	45	17	10	36	18	25	37	4	38	17	12	23	38
Chili	4	14	42		35	17	8	39	19	24	41	2	33	14	9	24	35
Cocoa	5	9	45	35		15	14	30	15	24	31	5	37	24	16	20	28
Cocoyam	2	6	17	17	15		4	14	7	11	16	0	17	3	5	13	15
Coffee	2	2	10	8	14	4		7	5	6	7	1	8	6	3	5	6
Eggplant	4	9	36	39	30	14	7		17	20	35	2	28	13	9	23	28
Groundnuts	3	8	18	19	15	7	5	17		14	18	1	14	7	4	12	17
Maize	4	9	25	24	24	11	6	20	14		22	2	20	13	6	16	20
Okra	4	12	37	41	31	16	7	35	18	22		2	28	13	8	23	31
Palm	1	0	4	2	5	0	1	2	1	2	2		2	3	3	1	2
Plantain	3	10	38	33	37	17	8	28	14	20	28	2		12	10	20	28
Rice	4	2	17	14	24	3	6	13	7	13	13	3	12		5	5	7
Rubber	1	1	12	9	16	5	3	9	4	6	8	3	10	5		6	7
Tomatoes	2	7	23	24	20	13	5	23	12	16	23	1	20	5	6		21
Yam	2	16	38	35	28	15	6	28	17	20	31	2	28	7	7	21	



What explains high frequency of pairing?

1. Cassava and plantain provide excellent possibilities for intercropping with young cocoa;
2. Pairing these crops provides additional income more regularly and in cocoa off-season;
3. Both cassava and plantain are nutritious product for household; and
4. The production of these crops in combination fit current gender roles.



The importance of cocoa

1. Cocoa is seen as a reliable source of income that consistently generates the highest source of income (both Ghana and Côte d'Ivoire);
 - High income
 - Stable income → guaranteed market and price
 - Bulk income
 - Long-term income
2. Farmers feel that it is a crop of national importance (particularly in Ghana)
3. Cocoa provides farmers with a high degree of land security (particularly in Ghana)



Understanding gender differences

In Côte d'Ivoire, about twice as many male headed households (73%) reported they produce cocoa as female headed households (36%) (*p-value* <0.01).

- Particularly in Côte d'Ivoire, cocoa is perceived as “a man’s job”; women are seen as “helpers”.
- Activities that stand out as “a woman’s task” are often not recognized as contributing directly to cocoa production.
- Men do the marketing, control the marketing and make decisions
- Decision-making depends on ownership: women have much more difficulty accessing cocoa land than men



First conclusions

- The study confirms some well-known processes such as the systematic intercropping
- Cocoa is not the sole source of revenues.
- Cocoa remains center of cocoa farmers' concerns and priorities, for variety of factors, and particularly for men.
- Final results of this study can serve as baseline for future discussions on diversification, gender relations, nutrition, decent income etc
- We are happy to share!... And do this in more countries!





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