

A close-up photograph of two large, reddish-pink cacao pods hanging from a tree branch. The pods are elongated and have a textured, slightly wrinkled surface. The background is a blurred green, suggesting a forest or plantation setting. The lighting is bright, highlighting the vibrant colors of the pods.

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Introduction

Bymolt, R., Laven, A., Tyszler, M. (2018). Demystifying the cocoa sector in Ghana and Côte d'Ivoire. Chapter 1, Introduction. The Royal Tropical Institute (KIT).

1.1 The future of cocoa

Cocoa is the raw ingredient of some of the world's most loved products. We almost cannot imagine a world without cocoa.

Yet in 2014, a series of media reports asked us to confront the question: 'Is the world running out of chocolate?'. The media based their articles¹ on warnings by large chocolate manufacturers, such as Barry Callebaut and Mars,² who had expressed concerns about a potentially serious shortage of cocoa by 2020. In response, the International Cocoa Organization (ICCO) felt compelled to issue a statement emphasising that fears of a cocoa shortage were 'overstated in the extreme'.³

This proved to be the case when consecutive production decreases in 2014/15 and 2015/16 were followed by a large 18% reversal in 2016/17. This production increase was due to favourable weather conditions resulting from the mild harmattan winds within the West African region.

The 2016/17 increase resulted in an oversupply of cocoa on the world market and a drop in prices. The government of Côte d'Ivoire was forced to slash the price it guaranteed farmers by 36%, which had serious consequences for many cocoa farmers living already in disadvantaged situations. Fortunately, the government of Ghana was able to stand firm on its guaranteed prices on this occasion.⁴

It now seems certain that the world is not running out of cocoa in the foreseeable future. This situation prompted us to ask how different actors could come to such different conclusions about the future of cocoa. As we began to delve deeper, it became apparent that one reason was a lack of quality, publically available data.

1.1.1 The age of cocoa farmers

Fears still persist that the world may be running out of cocoa farmers. Several studies have expressed a concern that older farmers are reaching their life expectancy and

¹ For example: Guardian. (2014). The cocoa crisis: why the world's stash of chocolate is melting away. Available at <https://www.theguardian.com/lifeandstyle/2014/nov/21/cocoa-crisis-world-chocolate-stash-melting-away>; Washington Post. (2014). The world's biggest chocolate maker says we're running out of chocolate. Available at <https://www.washingtonpost.com/news/wonk/wp/2014/11/15/the-worlds-biggest-chocolate-maker-says-were-running-out-of-chocolate/>; Huffington Post. (2014). The World Is Running Out Of Chocolate (Partly Because We're Eating Too Much). Available at http://www.huffingtonpost.co.uk/2014/11/17/chocolate-running-out-supply_n_6170080.html

² Food Manufacturer (2012). Mars chocolate warns action on cocoa needed to beat shortage. By R, Pendrous 13 June 2012. Available at https://www.foodmanufacture.co.uk/Article/2012/06/13/Mars-Chocolate-warns-action-on-cocoa-needed-to-beat-shortage?utm_source=copyright&utm_medium=OnSite&utm_campaign=copyright

³ ICCO (2014). ICCO Statement on Reports of a Cocoa Supply Deficit in 2020. Available at <https://www.icco.org/about-us/icco-news/270-icco-statement-on-reports-of-a-cocoa-supply-deficit-in-2020.html>

⁴ The government of Côte d'Ivoire cut farmers' pay by 36 percent to the equivalent of about 700,000 CFA francs (\$1,251) per metric ton in April 2017 to cope with global prices that dropped more than a third in a year on expectations of oversupply. Ghana, the second-biggest grower, has kept farmer payments at the equivalent of 7,600 cedis (\$1,708) per ton since October 2017 and has ruled out any cuts for the main harvest that starts next month. Cocoa is harvested twice a year in West Africa. Source: Bloomberg (2017). By Baudelaire Mieu, Moses Mozart Dzawu, and Olivier Monnier. August 31, 2017. Available at <https://www.bloomberg.com/news/articles/2017-08-31/ivory-coast-is-said-to-fear-losing-fifth-of-cocoa-to-smuggling>

that younger generations are no longer interested in farming cocoa.^{5,6} The implication is that the global supply of cocoa could be still be threatened in the years ahead.

In our chapter on household demographics we analyse whether cocoa farmers really are getting older. We also investigate trends in global cocoa production, as well as farmer reported trends in our research areas in Ghana and Cote d'Ivoire.

1.1.2 Cocoa farmer livelihoods

Beyond securing cocoa supply in the short-term, there are a variety of complex issues that the cocoa sector must come to grips with if it is to be successful and sustainable in the longer term.

A major concern is the livelihood status of cocoa farmers. Some advocates have argued that 'poverty is rampant in West Africa's cocoa fields', and that 'most cocoa farmers live in destitute poverty'.⁷

National statistics do indeed show that smallholders in developing countries are less well-off than the national averages. However, the extent to which poverty is a cocoa specific issue, rather than a broader smallholder farmer phenomena, has not received a lot of attention until recently.⁸ In this study, we have dedicated a specific chapter to analysing the wealth, income and poverty status of cocoa households in Ghana and Côte d'Ivoire.

In the literature, many reasons have been cited as to why cocoa households struggle to improve their livelihood situation. These include poor access to quality inputs, the old age of cocoa trees, ongoing use of non-hybrid varieties, the small size of many cocoa farms, insecure land tenure which discourages investments, relatively weak institutions, and the low capacity of farmer organisations. Each of these issues have been explored in the study.

However, debates on how to improve the livelihood status of cocoa households typically hone in on one of two approaches: i) improving cocoa productivity, and ii) paying higher cocoa prices. Each of these approaches are believed, by their proponents, to improve household income, although both approaches also have their drawbacks and challenges.

⁵ E.g. Hainmueller, J., Hiscox, M., & Tampe, M. (2011). Sustainable development for cocoa farmers in Ghana. MIT and Harvard University. Available at <https://www.theigc.org/wp-content/uploads/2015/02/Hainmueller-Et-Al-2011-Working-Paper.pdf>

⁶ E.g. Vigneri, M., Sera, R. & Cardenas, A.L. (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

⁷ Fountain, A.C. and Hütz-Adams, F. (2015). Cocoa Barometer 2015-USA Edition. Available at http://www.cocoa-barometer.org/International_files/Cocoa%20Barometer%202015%20USA.pdf

⁸ Kolavalli, S. and Vigneri, M. (2017). The cocoa coast: The board-managed cocoa sector in Ghana. Washington, D.C.: International Food Policy Research Institute (IFPRI). Synopsis available at <https://doi.org/10.2499/9780896292703>

1.1.3 Improving cocoa productivity

Improving productivity is a common approach to raising incomes in cocoa households. It is widely accepted that most cocoa farms are far from achieving potential yields due to poor agronomic practices, and low, incorrect or untimely use of inputs. Therefore, training on good agronomic practices (GAP) is often seen as a way to remedy the situation. Advocates for boosting farmer yields also see this as one way to slow or reverse deforestation.

Nevertheless, this approach is sometimes critiqued due to the disappointing achievement of results at scale. This is partly due to the fact that interventions often aim to reach a large number of farmers rather than working more intensively with a smaller number. Some actors have also expressed concerns that improving productivity could contribute to oversupply in the future, resulting lower prices.

In our study, we dedicate a chapter to describing current production practices in detail, and present an analysis of yield determinants.

1.1.4 Higher cocoa prices

The idea that cocoa farmers should receive a higher price is not a new concept, although it has been operationalised in several different ways. For example, some advocates believe in intervening in international markets, buffer stock management or the establishment of a cocoa cartel. Others believe that national marketing boards should be the ones paying farmers a higher share of the price they receive on the international market. Higher prices are sometimes operationalised through a premium model, which rewards farmers for engaging in sustainable production. In some countries, quality differentiation (such as for fine flavour cocoa) has also enabled price differentiation.

Some proponents of higher cocoa prices argue that cocoa farmers should receive a greater share of the value of a chocolate bar. Detractors argue that a chocolate bar contains many other ingredients and goes through a substantial process of value addition, rendering comparisons problematic. Competition within the chain also means that most value chain actors also face tight margins, necessitating high volumes of trade to achieve profitability.

The question of who exactly (if anyone) should bear the cost of higher cocoa prices remains a sensitive one. As a globally traded commodity, cocoa prices are logically more responsive to supply and demand dynamics than to pleas for buyers to voluntarily pay higher prices.

There is also the question of how farmers may respond to a higher price signal. There are valid concerns that farmers could clear more land for cocoa, contributing to deforestation. Others may convert land from less profitable food crops to cocoa, thereby increasing global cocoa supply and potentially depressing prices.

In this study, we present a chapter on cocoa marketing in which the formation of cocoa prices and recent price trends are discussed. Cocoa prices are also an important element our cocoa profit model, which feeds into our calculations on total household income.

1.1.5 Diversification

Another recent shift in the discourse has been to encourage households to diversify into other crops (and even other non-agriculture incomes). This approach assumes that diversification can help reduce household dependence on cocoa and make them more resilient.

However, others have argued that promoting diversification into less profitable crop options would lower household incomes and risk a rise in poverty incidence. Some believe that promoting diversification is weak approach because farmers will typically choose the best crop options available in their local context regardless.

A related notion is that of a 'dual transition', whereby high potential cocoa households should work to professionalise, while other households would be better off transitioning away from cocoa.⁹ It has been suggested that climate change could be one driver behind diversification and conversion away from cocoa.^{10,11}

In this study, we look at both crop and income diversification and ask to what extent cocoa households are already diversified and for what reasons, relative to non-cocoa households.

⁹ Oomes, N., Tieben, B., Laven, A., Ammerlaan, T., Appelman, R., Biesenbeek, C. & Buunk, E. (2016). Market concentration and price formation in the global cocoa value chain. SEO Amsterdam Economics: Amsterdam. Available at <http://www.seo.nl/en/page/article/marktconcentratie-en-prijsvorming-in-de-mondiale-waardeketen-voor-cacao/>

¹⁰ Wessel, M., & Quist-Wessel, P. F. (2015). Cocoa production in West Africa, a review and analysis of recent developments. *NJAS-Wageningen Journal of Life Sciences*, 74, 1-7. Available at https://www.researchgate.net/publication/282316360_Cocoa_production_in_West_Africa_a_review_and_analysis_of_recent_developments

¹¹ P. Läderach (2011). Predicting the Impact of Climate Change on the Cocoa-Growing Regions in Ghana and Cote d'Ivoire. Final report September, 2011. Part of the Decision and Policy Analyses (DAPA) program at the International Center for Tropical Agriculture (CIAT) under the leadership of Dr. Peter Läderach, with the collaboration of Anton Eitzinger, Armando Martinez and Narioski Castro. The compilation of the ground data has been facilitated through Agro Eco - Louis Bolk Institute in Ghana.

1.2 The importance of data for understanding complexity

What is certain is that all of the above issues are complex and intertwined. Policymaking requires a sufficiently deep understanding of the issues and access to relevant data to quantify the size and scale of a given problem. Furthermore, it requires an integrated approach which considers relationships between different crops and their profitability, risks and resilience, nutrition, and intra-household dynamics. This approach can help explain why cocoa, for all its challenges, remains an attractive option for many households.

The Cocoa Barometer 2015 was well received by industry and non-governmental organisations (NGOs), and was also notable for its attempt to share all of its data sources. Unfortunately, this highlighted the fact that most data is only available in aggregated form. Databases are rarely made publically available to other researchers, and most studies are based on relatively small or non-representative samples.

Part of the problem is that many companies do not publish internal reviews and evaluations. A regularly shared concern is that publication of negative outcomes will lead to criticism by NGOs. Fortunately, this does appear to be changing. By involving companies in knowledge processes, there is an increasing openness to share reports.

The problem of data sharing is not limited to companies. NGOs and other researchers also do not share databases from their own studies. Access to the actual datasets is important for others to be able to have confidence in the figures presented, and to be able to replicate the findings. Access is also important to allow others to query relationships between variables, understand the distributions of variables (not just averages), and analyse whether or not differences between certain groups are statistically significant or not.

We are unsure as to the precise reasons why databases are not usually shared. In some cases this may be due to a lack of confidence in data quality, while in other cases there may be fears about revealing the performance of a programme. There is also certainly a considerable time cost involved in preparing a dataset for public access, which funders may be unwilling to pay for.

1.3 Demystifying the cocoa sector with open data

As a knowledge institute, KIT believes that research should not be seen as a cost, but as an investment that the sector must make. Without access to quality data, programmes and policies may suffer through poor design or targeting. In the worst case, harmful myths may pervade the discourse, even well-intentioned ones.

This major study aims to contribute to the cocoa sector's body of knowledge by demystifying current trends, and providing a solid evidence base to test common assumptions and beliefs. We are pleased to provide free access to the database for everyone. We also hope that other actors who commission or implement research in the cocoa sector will start publishing datasets. Doing so would increase the opportunities for data validation, enhance the evidence base for policy making and accelerate innovation.

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