



## Working towards a living income for cocoa farmers: assessing selected strategies in Côte d'Ivoire



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### What are the effects and limits of Good Agricultural Practices dissemination, the Farmer Business School approach, and in-farm diversification strategies?



Côte d'Ivoire is the largest cocoa producer in the world, supplying roughly 40% of the world's cocoa beans (World Bank, 2019). The Ivorian cocoa sector is constituted of around 1 million producers and employs about one-fifth of the population (World Bank, 2019). Despite the importance of cocoa to the national economy, it is estimated that only 7% of Ivorian cocoa farmers earn a living income (Rusman et al., 2018). On average, an Ivorian cocoa-producing household would need to triple its income to afford a decent standard of living (Bah & Laven, 2019).

In the past two decades, numerous non-profit, private, and public-private partnership initiatives were set up with the aim to improve cocoa sustainability and smallholders' welfare. Most projects rely on increasing productivity-oriented strategies with the objective to raise farmers living income through an increase in production. The dominating narrative lies in the argument that cocoa yields in West Africa remain low, and farmers could increase their revenues by doubling and even tripling their cocoa yields with the application of 'Good Agricultural Practices' (GAP) (Fountain & Hütz-Adams, 2022).

Research on the effectiveness of such productivity-oriented and diversification initiatives to improve farmers' net income show inconsistent and conflicting findings. On the one hand, reports have claimed significant improvements in yields, the

### KEY MESSAGES

- Farmers identify pests and diseases, climate variability and the aging of cocoa plantations as the highest threats to cocoa yields.
- Despite a productivity (kg/ha) increase linked with GAP dissemination, average productivity remains low.
- Farmers need support to access and finance input products and cover labor costs for optimal GAP application.
- Knowledge transfer must be directed towards adapting cocoa production systems to changing environmental conditions.
- In-farm diversification is of growing interest, but its effectiveness is limited by the farmers' incapacity to invest and land availability.
- Research is needed to determine the scalability and potential income increase from in-farm diversification strategies and adapt the programs to regional specificities.



profitability of farms, and farmers' income (Fobelets & de Groot, 2016; Cargill, 2015; Kanga et al., 2018). On the other hand, recent reports argue that programs aimed at increasing productivity do not necessarily

positively impact the net income of

households that rely on cocoa farming. In fact, Waarts & Kiewisch (2021) estimate that only one-third of farmers have the potential of reaching a living income through productivity increase due to limiting factors such as the availability of land, capital, and labor. Other studies firmly state that there is no significant difference in income between households that reside in farms supported by projects or are certified and those that do not (Fountain & Hütz-Adams, 2022). Finally, Ruf (2021) suggests that input use promoted by Transnational Corporations (TNC) via the cooperative and certification system would have led farmers to produce more, but also spend more, and hence ultimately earn less. It is in this context that assessing productivity-oriented and in-farm diversification strategies in cocoa-growing regions in Côte d'Ivoire are of high relevance.

### The living income gap of cocoa farmers: a need for action

High percentages of households have difficulty meeting basic living needs such as sending the household children to school, feeding the household, accessing health services, achieving money savings, access to clean drinking water, and a satisfactory housing situation. In terms of access to credit, around one-third of farmers affirm taking loans, with the majority obtaining them from their cocoa cooperatives or relatives. Financial institutions are rarely mentioned, showing a lack of presence of such structures for financing solutions. Another factor reveals the important living income gap of cocoa farmers. While one would expect that cooperatives offer credit opportunities for agricultural products to their members, findings show that most farmers resort to loans to meet basic needs. In fact, most borrowed money is used for financing households' children's education and health services, while only about one-tenth was used to finance agricultural inputs.

→ To improve farmers' livelihoods, sustainable and affordable credit facilities should be made available to farmers.

### Increasing productivity through GAP

GAP refers to the use of good planting material, proper shade management, maintaining and improving soil fertility, weed and pest control, and adequate post-harvest management practices (Cargill, 2021). Most farmers are members of well-established cooperatives and have participated in GAP training. However, lower participation was found in the center-west regions than in the southeast of the country. Despite findings showing an increase in productivity (kg/ha) linked with GAP adoption, cocoa yields remain low with a productivity average of 515 kg/ha, with half the farmers producing less than 430 kg/ha. In this context, it is also important to add that increased cocoa yields come along with higher costs, which may weigh on the producers' net income. In parallel, many cocoa farmers declare to have seen their yields decrease over the past five years and identified pests and diseases, climate variability, and the aging of cocoa trees as the major threats. After having participated in GAP training, farmers are more likely to adopt optimal cultivation and farm management practices, including for instance the adequate use of fertilizers and pesticides and the adoption of recommended cultivation practices. However, they remain restricted by the costs that applying GAP imply. According to most farmers, fertilizers, and pesticide prices as well as labor costs have increased in the last five years, resulting in nearly one-quarter of farmers declaring to have modified their input purchase accordingly, the majority referring to lowering their fertilizer and



pesticide use. Similarly, Bymolt et al. (2018) argue that Ivorian farmers are increasingly concerned with the increase in input prices, and some need to travel long distances to get the products, resulting in even higher costs.

- Knowledge transfer and technological dissemination must be directed towards adapting cocoa production systems to changing environmental conditions and controlling and preventing the spread of cocoa pests and diseases.
- GAP dissemination initiatives should be carried out in areas with formerly lower participation rates.
- It is essential to increase farmers' access to quality products, improve and support the role of cooperatives in providing services, and offer extension services that address farmers' needs.

### The FBS approach: adopting an entrepreneurial mindset

The Farmer Business School approach (FBS) was developed by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), the German agency for international cooperation, to promote an 'entrepreneurial mindset' among farmers and enhance profit-oriented decision-making (GIZ, 2019). It was launched for the first time in 2010 for cocoa farmers in West Africa, and the approach has been replicated by various programs since (GIZ, 2019). In Cote d'Ivoire, the approach has garnered a favorable reception among farmers. Nevertheless, assessing the true extent of its impact proves challenging. The persisting obstacle of low education levels among the farmers hampers the adoption of its contents. In fact, some of the program's contents were pointed out as particularly difficult to put into practice. For instance, ac-

counting and saving up for future investments were cited as difficult practices to adopt. Research suggests that trainings of longer duration and including several follow up sessions have a greater impact on participants (Bymolt et al., 2018). However, only one-third of FBS

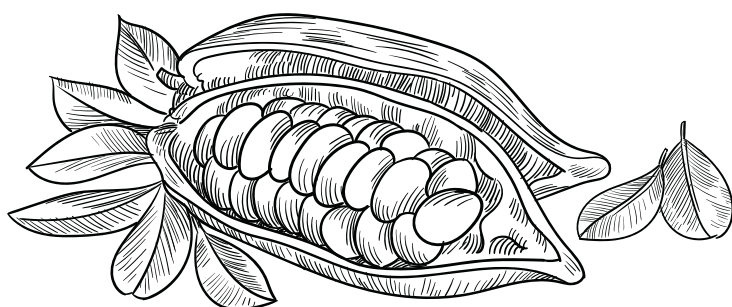
Ivorian participants mentioned having had at least one follow-up session, lowering the chances of adoption of the knowledge gained.

- The program's contents should be tailored to suit the local context of the farmers, making it more relevant and practical to their needs.
- Stronger support via follow-up sessions is recommended to facilitate better implementation of the knowledge and skills gained from the program and to identify areas of improvement of the FBS program itself.

### Increasing in-farm diversification

The sector's second major strategy to improve farmers' welfare is income diversification (Fountain & Hütz-Adams, 2022). It is advocated that the living income of cocoa farmers can be increased and secured through a strategic diversification of income that would allow decreasing the singular dependency on cocoa (Kiewisch & Waarts, 2020). In-farm diversification trainings usually provide guidance on improved species and cultivation techniques for increasing yields of non-cocoa crops and developing





animal husbandries. GAP on non-cocoa crops can help achieve higher yields, however, the question that arises is to which extent and whether they have a significant impact on households' net income. In order of importance, farmers refer to the lack of means of investment, the lack of available land, and the lack of time as the principal causes for the non-application of diversification training components. While all cocoa-producing households grow non-cocoa crops, one-third of them have no separate dedicated plots. In fact, the most grown crops are plantain, cassava, avocado, and orange - all of which are usually planted in association with cocoa trees, or for cassava, on the sides of the cocoa field. This largely limits the scalability of such productions, and hence the potential increase in revenue from non-cocoa crops. The revenue potential of non-cocoa crops is a pressing matter, particularly in regard of apprehensions regarding the markets' ability to assimilate goods at a desirable cost and conservation obstacles associated with production in distant regions. This raises uncertainties about the overall effect of these strategies. Nevertheless, a growing and important interest of farmers in developing in-farm diversification to complement cocoa's income can be observed.

- Diversification strategies must be adapted to the specificities of the region, considering existing knowledge and practices, a context-dependent selection of crops, climate, access to markets and revenue potential, and as well as gender aspects.
- Research is essentially needed to determine the scalability and potential income increase from diversification strategies, particularly on relevant crops, considering limitations on available land, investment, and market opportunities.

### The way forward: meeting farmers needs to close the living income gap

Despite the strategies that encourage cocoa farmers to invest more in their farms, the reality is that many of these small-holders cannot even cover their basic needs. The strategies applied so far promote increased investment in both cocoa and non-cocoa activities without providing certainty on the outcome. As a result, farmers face a difficult decision: to invest in the hopes of securing a better future or focus on providing for their households' immediate needs. The incompatibility of currently applied strategies that rely on farmers' investment in their farms and their ability to provide for their families is further complicated by the growing threat of climate variability and the prevalence of pests and diseases, which can have a devastating impact on cocoa yields. These challenges highlight the complex and interconnected nature of the issues faced by cocoa farmers and the urgent need for sustainable solutions.

Solutions highlighted in this policy brief suggest an action plan to:

1. Support farmers to have the capacity to practically apply the knowledge gained from extension services by facilitating the access and affordability of input products,
2. Adapt contents of the diverse programs to local contexts and regional specificities, and
3. Fill research gaps on the potential and limitations of diversification strategies considering existing capital and land availability. Following these recommendations, future initiatives will be better equipped to improve the livelihoods of cocoa farmers and their households.



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seeks to professionalize 30,000 smallholder farmers and 47 cocoa farmer organizations in Côte d'Ivoire. Its main goals are to enhance the living conditions of cocoa farming households by increasing their income towards a Living Income and promoting a balanced nutrition.

If you want to know more about the project, you can contact Sonia Lehmann: [sonia.lehmann@giz.de](mailto:sonia.lehmann@giz.de)

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