AID BY TRADE FOUNDATION

Case Study: Research on impacts of the CmiA initiative on livelihoods of small-holder farmers in sub-Saharan Africa

EVALUATION REPORT

June 2021
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Evaluation Report
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<tbody>
<tr>
<td>AbTF</td>
<td>Aid by Trade Foundation</td>
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<tr>
<td>C/A</td>
<td>Conseillers agricoles (farmer advisors in Côte d’Ivoire)</td>
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<tr>
<td>CCA</td>
<td>Conseil Coton Anacarde</td>
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<tr>
<td>CO.I.C</td>
<td>Compagnie Ivorienne de Coton</td>
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<tr>
<td>CNRA</td>
<td>Centre National de Recherche Agronomique</td>
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<td>COMPACI</td>
<td>Competitive African Cotton Initiative</td>
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<td>CmiA</td>
<td>Cotton made in Africa</td>
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<tr>
<td>DEG</td>
<td>Deutsche Investitions- und Entwicklungsgesellschaft</td>
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<tr>
<td>GAP</td>
<td>Good Agricultural Practices</td>
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<tr>
<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
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<tr>
<td>IAPRI</td>
<td>Indaba Agricultural Policy Research Institute</td>
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<tr>
<td>IPPM</td>
<td>Integrated Production and Pest Management</td>
</tr>
<tr>
<td>LDC</td>
<td>Louis Dreyfus Company</td>
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<tr>
<td>NORC</td>
<td>National Opinion Research Centre</td>
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<tr>
<td>OPA</td>
<td>Organisations Professionnelles Agricoles</td>
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<tr>
<td>PPS</td>
<td>Probability Proportionate to Size (Sampling technique)</td>
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<td>SBYS</td>
<td>Sample-Based Yield Surveys</td>
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<td>ToC</td>
<td>Theory of Change</td>
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Executive Summary

Background and objectives of the evaluation
Syspons has been commissioned by the Aid by Trade Foundation (AbTF) to evaluate the Cotton made in Africa (CmiA) initiative, investigating the impacts of the CmiA initiative on livelihoods of smallholder cotton farmers in sub-Saharan Africa. The objective of the evaluation was twofold: First, it sought to assess to what extent the CmiA initiative has contributed to achieving positive impacts among the smallholder farmers. Second, the evaluation served the objective of learning, by identifying which elements of the implementation work well and which ones do not, in order to improve the initiative in the future.

The Cotton made in Africa Initiative
Cotton made in Africa (CmiA) is an initiative of the Aid by Trade Foundation (AbTF), a German non-governmental organisation based in Hamburg. AbTF was established in 2005 with the aim to help smallholder farmers to help themselves through trade in order to promote sustainable development, protect the environment, and improve the living conditions of future generations. The Cotton made in Africa initiative aims to improve the socio-economic situation of smallholder cotton farmers by providing them with know-how on improved and sustainable farming practices. The initiative builds on the idea that fashion brands and retailers buy CmiA-verified raw cotton and process it into textiles, while paying a licensing fee to use the seal. Cotton made in Africa then reinvests this licensing revenue in the cotton-growing regions of sub-Saharan Africa in accordance with social business principles.

Evaluation approach
The evaluation took place between October 2019 and June 2021 and focussed on assessing the impact of farmer trainings and the CmiA verification process on the farmers’ living conditions. To this end, a tailor-made mixed-methods approach with both qualitative and quantitative elements of data collection and analysis was chosen. Syspons conducted two extensive case studies in Zambia and Côte d’Ivoire, which entailed an analysis of all relevant documents and data (self-assessments and verification reports from the assurance process, previously conducted Sample-Based Yield Surveys 2013-2016, NORC Baseline Survey from 2010), exploratory and in-depth qualitative interviews, a household survey among the cotton farmers, as well as focus group discussions. The primary data collection process took place partly on-site and partly remotely, due to travel restrictions in the context of the COVID-19 pandemic. The data was analysed in a theory-based approach (contribution analysis, complemented with a most significant change approach). The analysis included a regulatory as well as a counterfactual approach (longitudinal design and comparison groups) to examine the outcome and impacts of CmiA trainings over the course of time, as well as correlations with specific trainings or training frequency.

Main findings Zambia
The evaluation results show that the Zambian cotton market presents a challenging environment for the Cotton made in Africa initiative in its endeavour to improve the living conditions of cotton farmers. Due to various impeding structural factors such as the market structure, cotton price, seed quality, and climatic conditions, CmiA has not been able to achieve a significant positive economic and social impact on the farmers’ lives. However, the main strength of CmiA’s engagement lies in its ability to decrease the detrimental effects of the unfavourable environment and thus help to prevent, to some extent, further deterioration of the situation for the Zambian cotton farmers. In this regard, the farmer trainings constitute a specific asset in the CmiA approach, as they have a positive influence on the farmers’ productivity and thus contribute to higher cotton yields - when implemented on a regular basis.
Furthermore, CmiA’s support of the trainings has plausibly contributed to positive cultural changes in the farmer communities. The results indicate that the trainings have increased the awareness for the importance of education and gender equality, the negative implications of child labour, as well as the protection of the environment and health through a better handling of chemicals.

In addition, the verification process was found to be helpful to enhance the cotton companies’ management abilities and safeguard certain standards, e.g., regarding child work, gender, or work safety. The verification process keeps the cotton companies committed to continuously improve their processes, and thus their cooperation with the smallholder farmers (the same finding applies to Côte d’Ivoire).

At the same time though, the findings point to various threats and weaknesses: It was found that better productivity does not lead to higher incomes among the cotton farmers, because external market factors have reduced the profitability and thus attractiveness of cotton farming for many smallholder farmers in recent years. Hence, a lot of farmers have stopped growing cotton. Of those who have continued to grow cotton, the majority has not been able to increase their income from cotton, although some farmers managed to increase their yield through regular trainings. Because of the deteriorating relationship between input costs and sales revenues, even those farmers with a higher yield have mostly not received more revenue from it. Thus, the evaluation results demonstrate that the initiative operates in an extremely challenging environment, in which the context factors currently prevent CmiA from achieving a bigger economic and social impact in the farmers’ lives.

Main findings Côte d’Ivoire

In contrast to Zambia, the evaluation results from Côte d’Ivoire show that the efforts of the Cotton made in Africa initiative have a positive impact on the living conditions of cotton farmers, mainly in terms of their economic and, to a lesser extent, also their social living conditions. The favourable market environment in Côte d’Ivoire allows CmiA to realise the strengths of its approach. The structure of the cotton production system (zoning) as well as a stable, nationally fixed cotton price ensures an income security for the farmers and provides incentives to stick to cotton farming. Against this background, CmiA can effectively support a continuous capacity development through its trainings, which lead to a better application of Good Agricultural Practices, and thus an increase in productivity.

In this respect, two main success factors with regards to the trainings can be identified: First, the results show that farmers’ yields tend to increase with more frequent participation in trainings. Hence, a regular and frequent implementation of farmer trainings according to the CmiA standard, is important to achieve changes in the farmers’ agricultural practices and thus positively influence their productivity levels (the same result was found in Zambia). Second, decentralized company structures with strong physical presence and support of extension officers (conseillers agricoles) in the field, have proven to be a success factor. It was found that continuous support, follow-up and monitoring by trainers or extension officers throughout the entire cotton season ensure that farmers apply the newly acquired techniques and knowledge correctly.

Furthermore, the increase in yields linked to the training effects translate into a higher income for farmers. As the cotton price in Côte d’Ivoire remains relatively stable, higher yields are directly linked to a higher income. However, there are still untapped potentials for increasing farmers’ yield further, for example, through a more rigorous application of good agricultural practices, through which farmers can further reduce their input costs and hence increase their incomes.
In terms of CmiA’s intended social impacts (e.g., improvement of health and food security, reduction of child labour), the potential impact through enhancing farmers’ income was found to be limited. However, a potential contribution exists through the verification process (which helps to improve the management of cotton companies and their cooperation with farmers) as well as through a sensitization on relevant topics in the trainings. This includes for example education on the handling of chemicals or on the negative implications of child labour.

**Threats** to the positive influence of CmiA’s engagement include several external factors, such as the shortage of the labour force and necessary spending on the work force and equipment, increasingly tangible impacts of climate change (in particular through a destabilisation of rain patterns), pests as well as decreasing soil fertility.

**Conclusions**

Based on the analysis of the case studies in Zambia and the Côte d’Ivoire, the evaluation team concludes that the Cotton made in Africa initiative can contribute to positive economic and social impacts for the cotton farmers. However, CmiA’s verification process and support of trainings do not automatically lead to increased productivity, higher incomes and consequently a better economic and social situation of the cotton farmers. The findings clearly demonstrate that CmiA does not operate independently from external circumstances; instead, the market structure of the cotton system in the respective partner country was found to be a crucial factor influencing the extent to which CmiA can effectively contribute to the intended impacts. The analysis shows that CmiA can plausibly contribute to improvements when intervening in countries where the external market conditions allow for profitable cotton production. This requires a market structure that provides income security for the farmers and economic incentives to stick to cotton farming, because it enables continuous capacity development that can be supported by CmiA and leads to better productivity. If these conditions are not given, CmiA can only reduce the detrimental effects of the unfavourable market conditions for the smallholder cotton farmers.

**Recommendations**

Overall, the evaluation team concludes that CmiA’s engagement with regards to farmer trainings and the management of cotton companies (Managing Entities) has the potential to influence the living conditions of smallholder farmers in a positive way. However, in order to unlock this potential, the evaluation team has derived four recommendations related to the strategic orientation of CmiA, the farmer trainings as well as the professionalisation and extension services of the Managing Entities.

1. CmiA should conduct a strategic reflection process on the selection of partner countries and/or supported commodity sectors.
2. CmiA should ensure a frequent implementation of trainings and monitor the implementation and attendance in detail, for instance by collecting information from the Managing Entities on the number of trainings conducted by area/location as well as the number of trainings attended by individual farmers.
3. CmiA should support the inclusion of topics of socio-economic relevance into the training concepts. This entails for example financial and conceptual support for train-the-trainer events and training materials on environmental protection, health and gender equality.
4. CmiA should encourage the Managing Entities to invest in extension services and ensure a steady professional support of contracted farmers across all cotton-growing areas.
1 Introduction

Syspons has been commissioned by the Aid by Trade Foundation (AbTF) to evaluate the Cotton made in Africa (CmiA) initiative, investigating the impacts of the CmiA initiative on livelihoods of smallholder cotton farmers in sub-Saharan Africa. The Cotton made in Africa initiative aims to improve the living conditions of smallholder cotton farmers by providing them with know-how on more efficient and sustainable farming practices.

The objective of the evaluation was twofold: First, it sought to assess to what extent the CmiA initiative has contributed to achieving positive impacts among the smallholder farmers. Second, the evaluation served the objective of learning, by identifying which elements of the implementation work well and which ones do not, in order to improve the initiative in the future.

Key users of the evaluation are the Board of Trustees, the Management team and the project managers at the Aid by Trade Foundation, the advisory board of the CmiA initiative, as well as its international partners in the project countries, especially in Zambia and Côte d’Ivoire.

The evaluation took place between October 2019 and June 2021. During this period, Syspons conducted two extensive case studies in Zambia and the Côte d’Ivoire, which entailed an analysis of all relevant documents and data, exploratory and in-depth qualitative interviews, a household survey among the cotton farmers, as well as focus group discussions. The data collection process took place partly on-site and partly remotely, due to travel restrictions in the context of the COVID-19 pandemic.

This final evaluation report is structured as follows:

- Chapter 2 gives an overview of the Cotton made in Africa initiative and describes its Theory of Change.
- Chapter 3 elaborates on the evaluation design, including an outline of the methodological approach.
- Chapter 4 presents the evaluation results for the case studies in Zambia and the Côte d’Ivoire.
- Chapter 5 provides a conclusion based on the previous analysis and assessment of the results.
- Chapter 6 contains recommendations to further improve the CmiA initiative.
- The annex contains a bibliography, the evaluation matrix and the data collection instruments for the two case studies (survey questionnaire, interview and focus group guides).
2 The Cotton made in Africa Initiative

2.1 DEVELOPMENT AND STRUCTURE

Cotton made in Africa (CmiA) is an initiative of the Aid by Trade Foundation (AbTF), a German non-governmental organisation based in Hamburg. AbTF was established in 2005 by Prof. Dr. Michael Otto, an entrepreneur and philanthropist, with the aim to help smallholder cotton farmers to help themselves through trade in order to promote sustainable development, protect the environment, and improve the living conditions of future generations.

The rationale of the initiative stems from the observation that cotton plays an important role in the fight against poverty in Africa, as the revenue from cotton production presents a substantial part of the income earned by smallholder farmers and their families in several African countries. At the same time, the cotton industry in Africa lags behind its counterparts in other areas of the world. In comparison, productivity of cotton farming in Africa is relatively low due to several reasons, such as difficult climate conditions, low seed quality, the loss of soil fertility, and a lack of knowledge on techniques of sustainable cotton production. Furthermore, cotton from African countries often faces a disadvantage on the international market due to poor infrastructure and instable political conditions on the continent, as well as government subsidies to local cotton production in other parts of the world.

Against this background, the Aid by Trade Foundation set up two internationally recognized standards for sustainable cotton from Africa through the Cotton made in Africa initiative – CmiA and CmiA Organic. Between 2009 and 2016, these standards were implemented in cooperation with the “Competitive African Cotton Initiative” (COMPACI I and II), which were collectively funded by the Bill & Melinda Gates Foundation, the German Federal Ministry for Economic Cooperation and Development (BMZ), the Aid by Trade Foundation, Deutsche Investitions- und Entwicklungsgesellschaft (DEG), Walmart and the Gatsby Foundation. After the end of COMPACI II, AbTF continued the promotion of these sustainable cotton standards through the Cotton made in Africa initiative.

Since 2005, the initiative developed a large network of Managing Entities (usually cotton companies) in African cotton-growing countries, and many partners worldwide along the textile supply chain as well as governmental and non-governmental organisations. The initiative builds on the idea that fashion brands and retailers buy CmiA-verified raw cotton and process it into textiles, while paying a licensing fee to use the seal. Cotton made in Africa then reinvests this licensing revenue in the cotton-growing regions of sub-Saharan Africa in accordance with social business principles. For instance, the smallholder farmers are trained in sustainable agricultural methods that help them increase their productivity, improve their income and living conditions, and protect the environment as well as their health. CmiA works with Managing Entities which have an outgrower scheme. The Managing Entities contract smallholder cotton farmers at the beginning of each season and provide pre-financed inputs to the farmers which are paid back once the farmers sell their seed cotton to the Managing Entity at the end of the season. The Managing Entities implement the farmer trainings to ensure compliance with the CmiA Standards.

In doing so, the work of CmiA is based on three pillars of sustainability, reflecting the principles of the CmiA standards: people, planet, and prosperity. This means that CmiA (1) promotes dignified labour conditions, and respect for gender equality and the rights of children among smallholder farmers; (2) advocates for the protection of soil, water, biodiversity, the climate, and the environment, including banning the use of genetically modified organisms and redu-
The CmiA initiative seeks to improve the livelihoods of small-holder farmers by addressing several challenges: (1) improving crop management; (2) increasing the negative effects of crop management; and (3) providing access to high-quality inputs, in order to improve fibre quality of the cotton as well as the farmers’ living conditions.

The CmiA alliance currently includes 59 retailers and brands worldwide (e.g. the Otto Group, LIDL, Aldi Nord and Süd, Vlisco, Bestseller, Ernsting’s family, the Rewe Group and Tchibo). In 2020, more than one million smallholder farmers were growing cotton according to the CmiA standards in ten African countries. They produced about 600,000 metric tons of sustainable cotton for the international market.

### 2.2. OBJECTIVES OF THE COTTON MADE IN AFRICA INITIATIVE

To achieve a common understanding of the objectives of the Cotton made in Africa initiative, a Theory of Change (ToC) has been developed for the initiative in the evaluation’s inception phase. The ToC was presented and discussed in a workshop with staff members of AbTF in November 2019. The finalized version of the ToC served as a basis for this evaluation and consists of different inter-connected and independent components that will be outlined in the following.

In general, CmiA seeks to support cotton farmers by activating market forces, as it generates a licensing revenue that can be reinvested in the African cotton sector. Its work can be differentiated in four strands of action: (1) trainings and capacity building, (2) verification of the CmiA standard, (3) community projects, and (4) market & supply chain. With regards to trainings and capacity building, a main component of CmiA’s engagement consists in providing resources for the training of smallholder farmers on sustainable and efficient cotton production. The trainings are implemented by the participating Managing Entities, while AbTF and commissioned third parties are in charge of providing materials and expertise. Further, the verification process of the CmiA standard consists of two steps: A yearly self-assessment by the Managing Entities and external verifications on field and ginnery level (alternating every other year). Once a Managing Entity is verified and fulfils the CmiA standard, the verification process is repeated every year based on core criteria and improvement criteria to support progress and standard enforcement. Furthermore, the community projects are implemented as an additional support measure by CmiA. AbTF invests additional funds in these projects (together with the Managing Entities) to foster education, health, gender equality and environmental protection in the cotton-growing areas. Finally, the initiative also serves as a facilitator for the textile market and supply chain by establishing contacts and building demand networks between Managing Entities, international cotton traders, supply chain actors, and brands and retailers offering apparel and textiles. In the following, the objectives of the CmiA initiative are described along the Theory of Change (ToC).

At the impact level, the overall objective of CmiA is to contribute to improving the living conditions of farmers and farmers’ families as well as helping them to become more resilient to the effects of climate change. In order to achieve this goal, the initiative seeks to achieve improvements both on the economic and ecological level: Regarding the economic dimension, CmiA seeks to support the cotton farmers in securing higher incomes (from cotton production). This is to be achieved by higher cotton yields, as well as lower input costs for the cotton production, and potentially also a more diversified crop portfolio. Concerning the ecological dimension, CmiA strives to protect ecosystem services and minimise contamination of natural resources.

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1 Benin, Burkina Faso, Cameroon, Chad, Côte d’Ivoire, Mozambique, Nigeria, Tanzania, Uganda and Zambia.
2 The evaluation measured the income generated from cotton production. As this income may be influenced by other external variables (cotton prices, input costs, etc.), the evaluation measured the cotton turnover/revenue rather than the actual profit. At the same time, it is assumed that the influence of peaks and lows of external factors is levelled out by the longitudinal analysis (analysing the development over several years, see chapter on evaluation design).
in the cotton growing areas. This should be achieved by an improvement and/or maintenance of soil fertility and a reduction of pesticide use. In addition to the farm level, the CmiA standard also covers the next stage of cotton processing, the ginneries. Hence, the initiative seeks to contribute to decent working conditions for ginery workers.

In order to achieve the long-term impacts on the ecological, economic and social level, CmiA has different objectives at the outcome level, which are respectively supported by the initiative’s outputs. These outcomes and outputs can be categorised in four action areas with different impact strands: trainings and capacity building, verification, community projects, and market and supply chain.

**Trainings and Capacity Building**

**Outcome 1:** The farmers apply their knowledge, techniques and skills regarding cotton production.

**Outcome hypothesis 1a:** If the farmers are trained in good agricultural practices and corresponding skills, the farmers will apply their knowledge, techniques and skills regarding cotton production.

**Outcome 2:** Ginnery management applies measures on decent work.

**Outcome hypothesis 2a:** If the ginnery management improves and expands knowledge on decent work, it will apply measures on decent work.

To realise these impact hypotheses, CmiA supports the implementation of trainings as the main activity. The trainings are carried out by the Managing Entities through material, organisational, and content-related support of AbTF.

**Verification**

**Outcome 3:** The management of Managing Entities is improved according to the individual continuous improvement plan.

**Outcome hypothesis 3a:** If the Managing Entities conduct trainings, the management of Managing Entities is improved.

**Outcome hypothesis 3b:** If the Managing Entities conduct their activities according to the CmiA criteria, the management of Managing Entities is improved.

**Outcome hypothesis 3c:** If the Managing Entities conduct the activities laid out in their individual continuous improvement plans, the management of Managing Entities is improved.

**Outcome 4:** The Managing Entities are verified by CmiA.

**Outcome hypothesis 4a:** If Managing Entities conduct trainings, they can be verified by CmiA.

**Outcome hypothesis 4b:** If the Managing Entities conduct their activities according to the CmiA criteria, they can be verified by CmiA.
Outcome hypothesis 4c): If the Managing Entities conduct additional activities laid out in their individual continuous improvement plans, they can be verified by CmiA.

In order to achieve outcome 3 and 4, the verification process entails as main activity a yearly self-assessment by the cotton companies, which is then reviewed by AbTF. The foundation may then ask for clarifications or corrections. Furthermore, a yearly external audit of each Managing Entity takes place, alternating between ginnery and field level. Based on the findings of this audit, the Managing Entities set up an individual continuous improvement plan (management plan) that is to be implemented throughout the following year. It is assumed that this allows the Managing Entities to continuously improve their management and to fulfill the CmiA criteria again in the next year.

In addition, two further assumptions exist regarding the relationship between the verification process and the trainings:

- The results of the trainings enable the Managing Entities to be verified by CmiA (because they can fulfill the criteria if farmers apply the new knowledge) (outcome 5).
- The standards for trainings are set and enforced through the verification process.

**Community Projects**

**Outcome 6:** The social infrastructure of farming communities is improved.

**Outcome hypothesis 6a):** If the Managing Entities implement community projects according to the needs and demands of the farmers and farming communities, the social infrastructure of farming communities is improved.

CmiA supports the implementation of these community projects in the field of education, health, gender equality, and environment through their inputs.

**Outcome 7:** Managing Entities are able to attract and retain loyal farmers.

**Outcome hypothesis 7a):** If the Managing Entities implement community projects according to the needs and demands of the farmers and farming communities, they will be able to attract and retain loyal farmers.

**Outcome hypothesis 7b):** If the management of the Managing Entities is improved, they will be able to attract and retain loyal farmers.

The latter hypothesis refers to the assumed relationship between the verification process and the community projects.

**Market and Supply Chain**

**Outcome 8:** Increased trust and secured long-term demand of brands and retailers are built.

**Outcome hypothesis 8a):** If the traceability & transparency throughout the supply chain is increased, increased trust and secured long-term demand of brands and retailers are built.
Outcome 9: Brands and retailers integrate CmiA cotton in their supply chains.

Outcome hypothesis 9a): If feasibility of integrating CmiA verified cotton in supply chain is increased, brands and retailers integrate CmiA cotton in their supply chains.

The inputs necessary to carry out the Cotton made in Africa initiative consist of (1) knowledge on sustainable and profitable cotton production by AbTF staff and experts, (2) equipment and non-monetary resources (e.g. training material), as well as (3) financial resources. These inputs are generated through the sales of CmiA-licensed cotton products, which originate from the Managing Entities verified in the verification process.

2.3 THE EVALUATION OBJECT

For the purposes of this study, the evaluation focussed on two strands of action of the Cotton made in Africa initiative: (1) CmiA-supported trainings and capacity building for farmers and (2) the CmiA verification process. The trainings and capacity building on ginnery level, the community projects of AbTF, and the market and supply chain activities (strand of action 3 and 4) were excluded from the evaluation, as they follow another impact logic and would therefore require a different evaluation design. However, the evaluation team also investigated the relationship between the community projects and the verification process by analysing to what extent the community projects help the Managing Entities to attract and retain loyal farmers.

The evaluation was conducted in two case study countries out of the ten countries that CmiA is currently active in: Zambia and Côte d’Ivoire. These two countries were chosen based on considerations of data availability as well as travel security. To ensure the representativeness, one country from each region of CmiA’s engagement (Western and Central and Eastern and Southern Africa) was chosen. Hence, it needs to be mentioned that the findings of this evaluation only refer to the situation in Zambia and Côte d’Ivoire. It therefore needs to be assessed carefully to what extent the results can be transferred to other countries of CmiA’s involvement.
Cotton made in Africa Initiative

1. Inputs
   - Knowledge sustainable production
   - Equipment
   - AbTF staff
   - Resources, profitable materials.

2. Activities
   - Managing Entities conduct trainings on Basic Agricultural Techniques.
   - Managing Entities conduct trainings on integrated production and pest management (IPPM).
   - Managing Entities conduct trainings on Basic Agricultural Techniques.
   - Managing Entities conduct trainings on Basic Agricultural Techniques.
   - Managing Entities provide resources and trainings on decent work.

3. Outputs
   - Farmers are trained in Basic Agricultural Techniques.
   - Farmers are trained in post harvest handling and grading.
   - Farmers are trained in integrated production and pest management (IPPM).
   - Farmers are trained in integrated production and pest management (IPPM).
   - Farmers are trained in issues concerning CmiA Child Labour Criteria, Gender Equality and other social topics.

4. Outcomes
   - Farmers have a diversified crop portfolio.
   - Farmers have improved income from cotton production.
   - Farmers have improved livelihoods.
   - Farmers have improved and maintained soil fertility.
   - Farmers have improved and maintained natural resources.

5. Impact
   - Higher uptake of sustainably produced cotton in the markets.
   - Increased trust and secured long-term demand of brands and retailers.
   - Feasibility of integrating CmiA licensed cotton in supply chains is increased.
   - Trasparency & transparency throughout the supply chain is increased.
   - Reduced working conditions for cotton farmers.

Case Study: Research on impacts of the CmiA initiative on livelihoods of small-holder farmers in sub-Saharan Africa

Source: Aid by Trade Foundation, 2021
3 Evaluation Design

The evaluation’s objective was to **assess the impact of CmiA’s training and verification practices on the living conditions of smallholder farmers**. To this end, a tailor-made mixed-methods approach with both qualitative and quantitative elements of data collection and analysis was chosen.

### 3.1. EVALUATION DESIGN

In our evaluation design, we **combined three approaches**: A theory-based approach, a counterfactual approach, and a regulatory approach (see Figure 1).

Through the **theory-based approach**, we analysed why and how change happened and to what extent the intervention contributed to this change. Theory-based approaches build on theories of change\(^3\) and assess to what extent these theories are supported by the data and evidence. To implement the theory-based approach, we used a contribution analysis, as developed by Mayne\(^4\). In this analysis, we traced the individual steps of the Theory of Change and examined to what extent an element contributes to the subsequent element of the Theory of Change and in the long run to the expected impact. Within the contribution analysis, we applied an adapted version of the most significant change technique (MSC). The MSC is an evaluation technique based on storytelling. Through the narration of key events or changes experienced by the cotton farmers, less visible impacts and unintended results could be identified. Particularly in complex multi-stakeholder environments such as cotton production, this technique can offer valuable insights that are difficult to capture otherwise, for example the identification of important context factors\(^5\). The MSC technique also helped to analyse the relationships revealed through the contribution analysis in more depth. Our data collection included focus groups as well as semi-structured qualitative interviews with stakeholders and cotton sector experts.

![Figure 1: Evaluation Design](source: Syspons 2021)

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In our evaluation design we also integrated a **counterfactual approach** to address the fundamental challenge of every impact evaluation: To observe the counterfactual, meaning what would have happened to an individual if it had not been part of an intervention. To address this problem and identify the impact of the programme, we analysed differences between comparison respectively control groups: namely farmers who received trainings and farmers who did not, or farmers who received more trainings with those who received fewer trainings, by comparing randomly selected farmer groups. By relating differences in the training participation to differences in the outcome, we can thus derive conclusions on the effects of the trainings. In short, we assessed outcomes and impacts among different farmer groups to analyse if certain outcomes and impacts correlate with specific trainings or training frequency. The necessary primary data on outcome and impact level was collected among cotton farmers in 2020 (Zambia) and 2021 (Côte d’Ivoire).

Furthermore, with our **regulatory approach** we assessed outcomes and impacts at different points of time (longitudinal design) to analyse if changes in the farmers’ living conditions occurred and to what extent CmiA contributed to the observed changes. With this regulatory approach we are able to analyse statistical correlations between farmers in the past and farmers in the present and identify possible contributions by CmiA. For the longitudinal design we used quantitative data from 2010-2021. Our data sources were the Syspons Farmer Survey, the Sample-Based Yield Surveys (2013-2016) and for certain impact indicators, the NORC Baseline Survey (2010).

Throughout the whole evaluation we actively involved important stakeholders of CmiA in a **participatory evaluation process**. In our evaluation approach, stakeholders are not seen as the simple providers of information, but they also shape the evaluation process. Adopting a participatory approach requires the constant reflection of the position of the evaluator in relation to the other stakeholders. This makes the evaluation a mutual learning process, rather than a simple collection of information6. Furthermore, our participatory approach goes hand in hand with our principle of ‘do-no-harm’. As every evaluation constitutes an intervention into existing social systems, it was important to reflect potential implications for the target groups, i.e. cotton companies and farmers. In line with the do-no-harm principles, we opted for a semi-remote evaluation design to avoid any negative health consequences in light of the COVID-19 pandemic (see chapter 3.2).

The three approaches used in our evaluation design were applied using a mixed-methods approach, combining quantitative and qualitative methodologies. **Zambia and Côte d’Ivoire** were selected as the **two case studies** out of ten countries that CmiA is currently active in. To ensure that the different intervention areas of CmiA are covered by the evaluation, one country from each region (Western and Central (WCA) and Eastern and Southern Africa(ESA)) was chosen. Zambia and Côte d’Ivoire were chosen based on considerations of data availability (Sample-Based Yield Surveys and NORC data) as well as travel security.

In all synthesis steps of the evaluation, we used three approaches of triangulation: method triangulation, data triangulation and researcher triangulation to increase the reliability of our results (see Figure 2).

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In the method triangulation, we combined different data collection methods to minimise systematic errors in individual data collection steps by comparing them with other methods. In the data triangulation we triangulated data sources to compensate biases of individual data sources. Particularly relevant is the comparison of data from different interview partners and therefore different perspectives. We also ensured researcher triangulation by means of internal synthesis workshops and continuous exchange between our research experts. The central aim of the researcher triangulation is to minimise systematic errors in individual measurements by aligning all perspectives.

The whole triangulation procedure therefore aims at avoiding erroneous statements and increasing the reliability of the results. At the same time, a major challenge of triangulation is to deal with contradictory results. There is currently no universal way to do this.

### 3.2. METHODOLOGICAL APPROACH

The evaluation of CmiA was conducted in three phases:

**Figure 3: Overview of the methodological steps**

<table>
<thead>
<tr>
<th>Phase 1: Inception Phase</th>
<th>Phase 2: Data Collection Phase</th>
<th>Phase 3: Validation Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Kick-off by phone</td>
<td>• Desk research</td>
<td>• Synthesis of country findings</td>
</tr>
<tr>
<td>• Document review</td>
<td>• Scoping missions</td>
<td>• Validation of country findings through validation interviews</td>
</tr>
<tr>
<td>• Explorative interviews</td>
<td>• Enumerator preparation: hiring &amp; training</td>
<td>• Evaluation report</td>
</tr>
<tr>
<td>• Theory of Change workshop</td>
<td>• (Remote) field research</td>
<td>• Final results presentation workshop</td>
</tr>
<tr>
<td>• Development of the research design</td>
<td>• Data analysis</td>
<td></td>
</tr>
</tbody>
</table>
Case Study: Research on impacts of the CmiA initiative on livelihoods of small-holder farmers in sub-Saharan Africa

The **inception phase** had the objective of preparing the design and the data collection instruments for the remaining phases of the evaluation. Therefore, in the inception phase, the groundwork for the evaluation was laid. This involved developing an evaluation design as well as making practical decisions, such as on the case study countries and the precise methodological steps and time frame. Data collection in the inception phase consisted of the analysis of relevant programme documents and explorative interviews with ten project managers of AbTF and long-term CmiA partners. The results of the inception phase were summarized in an inception report, outlining the subject of the evaluation, the methodological steps as well as the data collection instruments.

The **data collection phase** was conducted in two countries: Côte d’Ivoire for West/Central Africa and Zambia for Eastern/Southern Africa. In both countries, scoping missions were conducted in February 2020 by our international and local consultants to plan the following data collection phase in detail and to identify expected challenges at an early stage. During these scoping missions first contacts with the cotton companies were made, potential interview partners were identified, and practical issues of the data collection were arranged.

The Syspons Farmer Survey was mostly designed as a methodological replication of the Sample-Based Yield Surveys to enable a longitudinal comparison. The main difference between both surveys is the data collection regarding cotton yield: In the Syspons Farmer Survey (see Annex III and IV) the farmers were asked to report retrospectively on their cotton yield of the most recent season, whereas in the SBYS the farmer’s yield was estimated as a projection for the upcoming harvest. The sampling strategy of the Syspons Farmer Survey consisted of cluster sampling combined with Probability Proportionate to Size (PPS) on a regional level. In this sampling technique, the farmers of one cotton company were separated into different clusters of distributors (Zambia) and villages (Côte d’Ivoire). These clusters were randomly selected, where the probability of being selected is proportionate to the cluster size. In this way, larger clusters were more likely to be selected than small clusters. From each cluster, a maximum set of 24 farmers was surveyed. The set of interviewed farmers was chosen by random sampling for which we used the cotton companies’ farmer lists as a sampling frame. In case of non-appearance of the farmers, we complemented the set of farmers with locally available farmers (random-availability selection as the most resource-efficient approach).

The qualitative data collection consisted of semi-structured qualitative interviews supplemented with focus group discussions (see Annex III and IV). They delivered answers on the questions on how and why changes occur and on the application of knowledge, skills, and techniques (outcomes), as well as economic and social impacts. For the qualitative interviews, a wide range of experts in the cotton sector in Zambia and Côte d’Ivoire as well as local stakeholders (cotton companies’ regional managers and extension staff, distributors, lead farmers, women’s groups, village elders) were interviewed. Focus groups were conducted with smallholder cotton farmers before the data collection of the Syspons Farmer Survey.

Before the actual data collection, a local pre-test of the data collection instruments was performed by the local consultants. Furthermore, in both countries an enumerator training was conducted. The evaluation missions took place in October 2020 (Zambia) and March 2021 (Côte d’Ivoire).

In Zambia, 226 farmers from two cotton companies (Louis Dreyfus Company and Alliance Ginneries) were included in the Syspons Farmer Survey. The Syspons Farmer Survey included farmers from the provinces Mumbwa, Lusaka West and Eastern Province. Besides the Farmer Survey, ten focus groups and 39 in-depth qualitative interviews were conducted. Interviews were conducted with
Case Study: Research on impacts of the CmiA initiative on livelihoods of small-holder farmers in sub-Saharan Africa

- the management from LDC and Alliance
- the Cotton Board of Zambia
- the Cotton Association of Zambia
- the Cotton Development Trust Zambia
- the Zambia Cotton Ginners Association
- the Indaba Agricultural Policy Research Institute (IAPRI)
- an AfriCert auditor
- a CmiA lead trainer
- ten regional / area / shed managers of Louis Dreyfus Company and Alliance Gin- neries
- nine distributors / lead farmers
- six village headmen and
- four women farmers clubs

In Côte d’Ivoire, 240 farmers from two cotton companies (CO.I.C. and Ivoire Coton) were interviewed in the Syspons Farmer Survey. The survey was conducted in the zone of Korhogo, which lies in the region Poro (CO.I.C.), as well as in the zones of Dikodougou, Boundiali, Gbon and Tengrela which are located in the region Bagoué. Moreover, ten focus groups (with 26-40 participants each) and 36 in-depth qualitative (group) interviews were carried out. Interviews were conducted with

- the management from the Compagnie Ivoirienne de Coton (CO.I.C-SA) and Ivoire Coton
- ten lead farmers (so-called chefs de OPA)
- nine agricultural advisors of CO.I.C. and Ivoire Coton (so-called conseillers agricoles, C/A)
- six zone managers of CO.I.C. and Ivoire Coton (so-called chefs de zone)
- sector experts from the Conseil du Coton et de l’Anacarde (CCA) and the Centre National de Recherche Agronomique (CNRA)

Due to the COVID-19 pandemic, the field research could not be implemented as planned, so it was decided to conduct the evaluation using a semi-remote approach with the support of local consultants (reflecting our do-no-harm approach). The semi-remote approach hence consisted of a division of tasks between international and national consultants: Our international consultants conducted expert interviews using digital tools such as Zoom, Skype or Teams and were also responsible for ensuring data quality throughout the whole process. Our national consultants, together with the teams of enumerators, were responsible for the primary data collection of the Syspons Farmer Survey, qualitative interviews with local stakeholders and focus groups. Our quality assurance mechanism was based on a fast feedback cycle which was ensured through daily check-ins with the national consultants and daily quality checks of the collected surveys. Through this close cooperation between national and international consultants, we were able to directly address any challenges during the data collection and ensure high data quality throughout the entire process.

In the final evaluation phase, the validation phase, we triangulated and synthesized our evaluation results for both countries in two country-specific synthesis workshops. Subsequently, validation interviews were conducted with the management of the cotton companies and sector experts. The validation interviews were aimed at reassessing the results of the data collection and filling data gaps. The present evaluation report elaborates on the results of the study and summarizes its findings.
3.3. CHALLENGES AND LIMITATIONS

In any evaluation there are challenges regarding data collection and data quality. In this impact evaluation of the CmiA initiative, we were confronted with two major challenges: methodological limitations in the application of the regulatory and the counterfactual approach and practical challenges due to the COVID-19 pandemic.

To start with, the regulatory approach highly relies on the availability of suitable data. Due to the lack of a baseline cohort, we were not able to do a pre-post comparison of specific individual variables over time (interrupted time series analysis7) or compare the changes over time to another group that did not participate in the training (difference in difference design8). For both methods, we would have needed a time series or at least specific baseline data, which were not available. Further, the previous surveys were not conducted consistently in the past, but adjusted over the years (e.g. adding / removing variables or re-phrasing questions). Moreover, surveys were not conducted in the same regions over time. As a result, it was difficult to create a time series with the existing data. We dealt with this methodological limitation by selecting those variables for which data was available at different points in time for the selected farmer clusters.

Furthermore, as budgetary and time restrictions did not allow us to include all farmers in the evaluation (full census), we used a cluster sampling approach combined with Probability Proportionate to Size (PPS) to compare the development of a random selection of farmers from regional clusters with the same clusters of the Sample-Based Yield Surveys. This sampling approach allows us to make statements about the development of the farmers over time even though we did not include the same individuals. With the comparison of the SBYS and the Syspons Farmer Survey another limitation arises, as we did not replicate the SBYS to one hundred percent: In the Syspons Farmer Survey, farmers were asked about their recent cotton yield; in the SBYS the farmer’s yield was estimated in advance of the harvest. To counter the recall bias9 in the Syspons Farmer Survey, we cross-checked the stated farmer’s yields with the monetary income disbursed by the cotton companies as this is based on the farmer’s yields.

Our counterfactual approach relies on the availability of comparison groups that can be compared with each other. Unfortunately, the organisation of a control group that was not part of any intervention proved to be impossible, because a large proportion of farmers in Zambia and Côte d’Ivoire have received trainings on Good Agricultural Practices.

We addressed this challenge by comparing different levels of trainings within our Syspons Farmer Survey. In this way, we were able to differentiate between farmers who were not exposed to the intervention (no trainings) with other farmers who were exposed to multiple interventions (e.g. minimum of one training, minimum of three trainings).

Practical challenges arose through the COVID-19 pandemic and the associated travel restrictions. For this reason, our international consultants were not able to travel to Zambia and Côte d’Ivoire and coordinate the data collection on the ground.

We have tackled this challenge with a higher involvement of our local consultants who were in charge of the data collection on the ground (which was postponed due to local travel restrictions in the context of the pandemic). At the same time, the data collection was still coordinated and supported by our international experts. Daily check-ins, routine controls of data quality and the performance of interviews through online tools ensured high-quality data.

4 Evaluation Results

This chapter presents the results of the impact study, structured along the criteria effectiveness of the trainings and of the verification process, followed by economic and social impacts. The analysis concentrates on the two case studies of Zambia and Côte d’Ivoire that were selected for the evaluation. Therefore, the results specifically refer to the situation in these two countries and have a limited external validity. Hence, it needs to be assessed carefully to what extent the results can be transferred to other countries of CmiA’s involvement.

The study results stem from the analysis of project documents and secondary data from previous studies, eight explorative interviews (with ten people in total), 62 in-depth interviews, 20 focus group discussions, five validation interviews, and two household surveys among 466 cotton farmers in total.

The survey results presented in this chapter refer to the data collected in 2020 (Zambia)/2021 (Côte d’Ivoire). Selected data from previous household surveys was integrated for specific variables to allow an analysis of the development over time (longitudinal design). The survey participants in Zambia were composed of 73% male and 27% female farmers. 54% of the farmers were contracted by Louis Dreyfus Company (LDC), while 46% associated with Alliance Ginneries. 9% of the respondents were lead farmers. Of all survey participants in Côte d’Ivoire, 97.5% were men and 2.5% were women. 50% of the farmers were for CO.I.C. and Ivoire Coton respectively. 47% of the farmers identified themselves as experienced farmers.

Pooled together, these different sources of primary and secondary data were analysed in a theory-based approach (contribution analysis, complemented with a most significant change approach). The analysis included a regulatory as well as a counterfactual approach (longitudinal design and comparison groups) to examine the outcome and impacts of CmiA trainings over the course of time, as well as correlations with specific trainings or training frequency. The data, along with the analytical approaches, allowed for the drawing of valid and specific conclusions on the overall performance of the Cotton made in Africa initiative in Zambia and Côte d’Ivoire, and the corresponding training interventions in particular.

As described in Chapter 2, the overall objective of CmiA is to contribute to improving the living conditions of farmers and farmers’ families. In order to achieve this goal, the initiative seeks to support the cotton farmers in gaining higher incomes from cotton production. This is to be achieved by higher cotton yields, lower input costs for the cotton production and a more diversified crop portfolio. Furthermore, CmiA strives to help the farmers in protecting the environment and health of their families by raising awareness for careful handling of chemicals, respect for gender equality and the importance of education.

The analysis therefore looks at different factors that are crucial in achieving those results:

1. Content, didactical approach and quality of the trainings supported by CmiA,
2. Training attendance and the application of agricultural techniques by the farmers,
3. Management of the cotton companies, as well as
4. Context factors in the cotton market

The following two chapters will elaborate on the findings regarding these aspects in Zambia and Côte d’Ivoire and analyse to what extent the impact hypotheses of the Cotton made in Africa initiative are valid.
4.1. ZAMBIA

4.1.1. Trainings

A central element of the Cotton made in Africa initiative consists in the provision of trainings for smallholder cotton farmers in the partner countries. CmiA provides financial resources, expertise and material to enable the cotton companies to train the smallholder farmers in sustainable agricultural practices. The underlying assumption is that the trainings will help them increase their productivity, improve their income and living conditions, and protect the environment as well as their health. The trainings cover different thematic aspects, including basic agricultural techniques, conservation techniques to improve soil fertility and water management, integrated production and pest management (IPPM), proper use and storage of pesticides, post-harvest handling and grading, business skills, as well as CmiA Child Labour Criteria, Gender Equality and other social topics.

Content of trainings

To find out to what extent the trainings have been effective in contributing to the intended impacts in Zambia, the evaluation first assessed the content of the trainings as well as the number of training contacts per farmer. According to the cotton companies and farmers themselves, the trainings in Zambia are mostly structured along the production cycle of cotton and cover various thematic aspects of Good Agricultural Practices (GAP). Starting with information on crop rotation and land preparation, the cotton companies continue to teach the farmers on planting methods, weeding, gap filling, and integrated production and pest management. At the end of the season, the trainings are concluded with information on post-harvest handling and marketing of crops. Training attendance varies across the different topics though, as the survey results reveal: Trainings on planting, weed control, integrated production and pest management, and land preparation have been attended most frequently (see Figure 4). In comparison, less than half of the trained farmers\(^{10}\) have received a training in the use and storage of pesticides, crop rotation, harvest, and soil fertility techniques. Cross-cutting themes such as HIV prevention and gender equality, child labour and protection of the environment were mentioned the least often by the survey respondents. However, it needs to be noted that these overarching topics are integrated into other training modules and therefore are less likely to be perceived as separate training modules by the farmers.

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\(^{10}\) Farmers that reported to have attended at least one training.
Based on the assumption that the trainings can only contribute to the desired impact if they follow a suitable methodological approach and fulfil the needs and expectations of the farmers regarding quality, the study also investigated these aspects of the trainings. Regarding the organisation and methodological design of the trainings, the evaluation results show that the cotton companies in Zambia follow a train-the-trainer approach. This means that the regional/area managers or other extension staff of the cotton companies are trained by lead trainers (experts) and then transmit their knowledge further to other extension officers, distributors and lead farmers in the field. According to several interview partners, the knowledge on sustainable farming practices does not always comprehensively arrive at the farmers’ level though, as trainings do not take place as regularly as planned. Based on the cotton companies’ statements, this can be explained by a lack of funds. If trainings are conducted, they follow a practical approach, using demo plots by lead farmers, visual material, and the 5-finger approach in most cases. According to the interviewed stakeholders, the trainings often take place in an informal rather than a formal setting, for example when an extension officer gathers some farmers during a field visit to tell them about the safe disposal of chemicals. Each training session is attended by 20-40 farmers on average, based on the statements from interview partners.

The results of the in-depth interviews and focus group discussions further reveal that most farmers who have attended a training in Zambia are satisfied with the quality, and generally confirm its positive effect on their farming practices. However, when it comes to the application

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11 According to the interview partners, this cannot be explained by the COVID-19 pandemic, as the most important training and farming activities of the season had already taken place when the pandemic hit Zambia (also see page 28).
12 The five-finger approach is a didactical method to teach good agricultural practices in five steps: Land preparation, planting, plant population, weeding, as well as scouting and threshold spraying.
of specific agricultural techniques acquired in the trainings, the qualitative and quantitative data provides a more complex picture, as the following chapter reveals.

**Training attendance and application of agricultural techniques**

In order to increase their income from cotton and thus their livelihoods, the farmers need to apply the techniques and skills acquired in the trainings, as formulated in CmiA’s impact hypothesis. Looking at the results of the farmer survey though, it becomes apparent that personal experience is the most important influencing factor for the application of certain agricultural skills and methods. Across all Zambian farmers interviewed in the survey (trained and untrained), the large majority state that their farming techniques are based on their own experience. For instance, most farmers rely on their experience in deciding when to plant the cotton seed (61.7%) or what type of weeding to use (81.2%) (see Figure 5). Knowledge acquired in trainings plays the second most important role in this regard. Overall, 16-17% of farmers in the 2020 survey state that they draw on training knowledge when taking those decisions (see Figure 5).

Figure 5: Knowledge sources of trained and untrained farmers

However, the influence of trainings on the application of farming techniques seems to increase with the frequency of the trainings, as the survey data suggests. The more trainings a farmer has attended, the more importance is attributed to trainings as a source for personal farming techniques.
techniques by the farmers. As shown in Figure 6, farmers who have attended at least one training more often state that their farming practices have been influenced by the training (23-28%). For farmers who have attended at least three trainings, the trainings’ importance is even higher in relation to personal experience, as can be seen in Figure 7: 31-33% of those farmers state that the trainings have helped them to take decisions related to planting and weeding\(^\text{13}\).

\begin{table}[h]
\centering
\begin{tabular}{|c|c|}
\hline
What helped you to decide what TYPE of weeding to use? & \%
\hline
My own experience & 71.9% (n=64) \\
I learned it in training & 23.6% (n=21) \\
Advice from extension agency / lead farmer & 13.5% (n=12) \\
Advice from another farmer / my family & 14.6% (n=13) \\
Other & 1.1% (n=1) \\
\hline
What helped you to decide when to do gap filling? & \%
\hline
My own experience & 55.7% (n=34) \\
I learned it in training & 27.9% (n=17) \\
Advice from extension agency / lead farmer & 18.0% (n=11) \\
Advice from another farmer / my family & 11.5% (n=7) \\
\hline
What helped you to decide when to plant your cotton? & \%
\hline
My own experience & 54.4% (n=49) \\
I learned it in training & 27.8% (n=25) \\
Advice from extension agency / lead farmer & 22.2% (n=20) \\
Advice from another farmer / my family & 14.4% (n=13) \\
Other & 1.1% (n=1) \\
\hline
What helped you to decide WHEN to weed? & \%
\hline
My own experience & 70.0% (n=63) \\
I learned it in training & 27.8% (n=25) \\
Advice from extension agency / lead farmer & 11.1% (n=10) \\
Advice from another farmer / my family & 16.7% (n=15) \\
Other & 1.1% (n=1) \\
\hline
\end{tabular}
\caption{Knowledge sources of farmers who attended at least one training}
\end{table}

\(^{13}\) It needs to be noted here that 2020 only a small number of farmers participated in the survey that had attended a minimum of three trainings (13 farmers). Hence, the data is less informative than the data for all farmers.
However, with regards to the overall **number and frequency of trainings in Zambia**, the quantitative and qualitative data indicates that in the 2019/2020 season fewer trainings were attended than in the previous years. This finding refers to all training topics, as the results from the farmer survey show: In 2013, there was an average of 1.41 training contacts<sup>14</sup>, which increased in the following years to an average of 2.1 training contacts in 2014 and 2.85 training contacts in 2015, most likely attributable to the intensive training engagement of COMPACI. One year later (2016), the figure decreased again to 2.27 training contacts on average. In 2020, the figure had reached its lowest point with 1.21 training contacts on average (see Figure 8). It needs to be noted here, however, that these numbers only include “official trainings” offered by the cotton companies. According to the interview partners, knowledge transmission can also take place in informal meetings, and through advice and guidance by the extension officers.

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*Figure 7: Knowledge sources of farmers who attended at least three trainings*

<table>
<thead>
<tr>
<th>What helped you to decide what TYPE of weeding to use?</th>
<th>My own experience</th>
<th>69.2% (n=27)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I learned it in training</td>
<td>30.8% (n=12)</td>
</tr>
<tr>
<td></td>
<td>Advice from another farmer / my family</td>
<td>25.6% (n=10)</td>
</tr>
<tr>
<td></td>
<td>Advice from extension agency / lead farmer</td>
<td>12.8% (n=5)</td>
</tr>
<tr>
<td>What helped you to decide when to do gap filling?</td>
<td>My own experience</td>
<td>37.0% (n=12)</td>
</tr>
<tr>
<td></td>
<td>I learned it in training</td>
<td>44.4% (n=12)</td>
</tr>
<tr>
<td></td>
<td>Advice from another farmer / my family</td>
<td>25.9% (n=7)</td>
</tr>
<tr>
<td></td>
<td>Advice from extension agency / lead farmer</td>
<td>14.8% (n=4)</td>
</tr>
<tr>
<td>What helped you to decide when to plant your cotton?</td>
<td>My own experience</td>
<td>35.9% (n=14)</td>
</tr>
<tr>
<td></td>
<td>I learned it in training</td>
<td>33.3% (n=13)</td>
</tr>
<tr>
<td></td>
<td>Advice from another farmer / my family</td>
<td>23.1% (n=9)</td>
</tr>
<tr>
<td></td>
<td>Advice from extension agency / lead farmer</td>
<td>20.5% (n=8)</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>2.6% (n=1)</td>
</tr>
<tr>
<td>What helped you to decide WHEN to weed?</td>
<td>My own experience</td>
<td>74.4% (n=29)</td>
</tr>
<tr>
<td></td>
<td>I learned it in training</td>
<td>30.8% (n=12)</td>
</tr>
<tr>
<td></td>
<td>Advice from another farmer / my family</td>
<td>23.1% (n=9)</td>
</tr>
<tr>
<td></td>
<td>Advice from extension agency / lead farmer</td>
<td>10.3% (n=4)</td>
</tr>
</tbody>
</table>

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<sup>14</sup> A training contact is defined as a group training session, one-on-one briefing or instruction by cotton company staff / external trainers. Training contacts can take place in a formal or informal setting.
The quantitative data is supported by the findings from the interviews: Almost all stakeholders state that the cotton companies in Zambia reduced the number of trainings after the end of the COMPACI funding. The cotton companies themselves explain this with the lack of financial resources available for trainings. Further, the data shows that the trainings do not cover all cotton-growing areas and farmer groups equally. While some farmers report having three to four training contacts per season, others report not having attended any training at all. These results suggest that there is a substantial variation in the number and frequency of trainings across cotton companies and areas in Zambia. This is confirmed by the survey results, showing that farmers contracted by Partner 1 had 3.6 training contacts on average per season in 2015 opposed to 1.76 training contacts of farmers contracted by Partner 2. In 2020, the figures are more similar, with 0.34 (Partner 1) and 0.41 training contacts (Partner 2) on average (see Figure 9).
Furthermore, the figures demonstrate that farmers in certain regions (e.g. Lusaka West, Katete, Mumbwa, Petauke, Southern Region) were more likely to receive more than one training, than farmers in other regions (see Figure 10). According to the cotton companies, they intend to provide trainings in all regions despite their remoteness, but there are not sufficient funds to attend all regions equally, resulting in differences across the cotton-growing areas.
The quantitative data hence suggests that while the frequency and number of training contacts is essential for farmers to adopt new agricultural practices, they have rather decreased in recent years and do not comprehensively cover all cotton-growing areas in Zambia.

At the same time, the qualitative data from the interviews points to additional influencing factors: All interview partners emphasise that the application of new techniques and farming
methods requires a cultural change in the farmers’ mindset that needs time and repeated dialogue on the topics. While the trainings are seen by interviewed farmers as successful in transmitting knowledge and creating awareness for more sustainable agricultural techniques, potential health risks, environmental concerns, and gender equality, further conducive market factors are needed to result in changed practices and habits among the farmers. This is especially the case for techniques that are labour-intensive and require certain equipment.

Apart from the labour intensity and frequently lacking availability of equipment (e.g. protective clothing for spraying of pesticides)\textsuperscript{15}, the interview results point to two other main reasons that have inhibited a widespread application of training skills among farmers in the last few years: First, a lack of continuous follow-up by extension officers in the field, and second, low market prices for cotton. According to representatives of the Zambian cotton companies, sector experts, distributors and lead farmers, these two influencing factors stand out when it comes to the farmers’ application of new agricultural practices. In the perspective of most interview partners, a continuous follow-up or monitoring by extension officers is needed throughout the entire cotton season, in order to ensure that farmers apply the newly acquired techniques and knowledge correctly. Currently, many extension officers have the necessary knowledge on cotton farming, but are not sufficiently present on the ground, as stated by many experts and farmers. One of the reasons mentioned was the high cost of fuel for transport. Second, it was emphasised that the farmers need to see an (economic) benefit in the change of their practices, i.e. if they expect high yields and high incomes from cotton, they are motivated to apply the GAP diligently. In this context, the market price for cotton plays a significant role, as it influences what the farmers can expect to gain from their cotton yields. Most interview partners stated that the farmers lack motivation for changing their habits and applying labour-intensive techniques, if the expected cotton price is too low. Instead, several interview partners noted that in recent years many farmers in Zambia have decided to switch or focus on other crops that promise to be more profitable.

**Assessment**

Based on the analysis of the data with regards to the effectiveness of trainings in contributing to CmiA’s intended impacts, three main results can be found: (1) First of all, the **quality of the trainings** in Zambia can be noted positively, although there is room for improvement concerning the train-the-trainer approach applied by the cotton companies. The decentralised approach relies on an efficient flow of information and the engagement of extension officers in the different locations, which could not be confirmed by all interview partners. (2) While the farmers are generally satisfied with the training content and methodology, **training attendance** of the cotton farmers has decreased over the past seven years. Whereas the number of training contacts peaked during the COMPACI period in 2015, training contacts in the 2019/2020 season reached a low point. Furthermore, the trainings do not cover all cotton-growing areas and farmer groups equally. According to the farmers, cotton company staff and external experts, this cannot be explained by restrictions in the context of the COVID-19 pandemic. The qualitative data suggests that a regular and comprehensive implementation of trainings is inhibited due to lacking financial resources of the cotton companies. Hence, the results indicate that CmiA’s impact logic currently cannot unfold its full potential in Zambia, as the prerequisites (i.e. widespread and comprehensive implementation of trainings) are not given.

At the same time, the results reveal that (3) the **frequency of trainings and follow-up by the extension staff** is crucial to have an effect on the farmers’ agricultural practices. In order to replace traditional habits with new, more sustainable and safer techniques allowing for a better productivity, a continuous training engagement by the cotton companies is needed. At the moment, there is not sufficient follow-up involvement by the cotton companies to ensure a con-

\textsuperscript{15} This result from the interviews may be subject to a response bias, as the interviewed farmers may have seen the evaluation as a chance to obtain additional equipment in the future.
sistent application of the techniques covered in the trainings. Together with a cotton price that is perceived as ‘too low’ on the market, this means that many farmers lack an economic motivation for changing their habits and applying labour-intensive farming techniques. In consequence, these results demonstrate that the outcome hypothesis (1a) “if the farmers are trained in good agricultural practices and corresponding skills, the farmers will apply their knowledge, techniques and skills regarding cotton production” is conditioned by two additional external factors: A continuous follow-up by extension officers as well as favourable market conditions for cotton. As these two conditions are not given in Zambia at the moment, CmiA’s support with regards to the training of farmers can currently not realise its full potential.

### 4.1.2 Management of cotton companies

Based on CmiA’s impact logic, the management of the cotton companies also plays an important role in improving the living conditions of the farmers and their families. It is assumed that through CmiA’s verification process, the cotton companies continuously improve their management capacities. This is assumed to result in a better cooperation with the farmers and, in the long term, also to better living conditions for the farmers.

During the evaluation, the verification process in Zambia was found to be properly implemented according to the CmiA verification standard. Furthermore, it could be confirmed that the verification process contributes to improving the cotton companies’ management capacities in Zambia. The verification process is structured in two parts: In the first part, every cotton company has to fill in a self-assessment once a year. AbTF reviews the self-assessment, and the cotton company fills in missing parts and clarifies others (sometimes several feedback loops). In the second part of the verification process, every company undergoes a yearly audit. The audits alternate between field level and ginnery level verification. Auditors check the cotton company’s compliance against CmiA criteria based on the company’s self-assessment and write an audit report. Subsequently, the cotton companies develop individual continuous improvement plans for activities to improve until the next audit (audits and continuous improvement plans are always either on ginnery or field level). According to the analysed verification reports 2016-2019 and the interview results, all steps of the verification process are implemented as required: self-assessments, AbTF-reviews and audits are completed, and management improvement plans from the cotton companies are available. Regarding the verification process itself, interview partners in Zambia mention the challenge to find suitable dates for the field audit due to the rainy season.

In this regard, most interview partners state that the management of cotton companies has improved due to the verification process and the individual continuous plans. In their view, one crucial aspect is that CmiA verified companies have certain minimum standards in terms of labour contracts, women and their specific needs and work safety. Additionally, the management representatives of the cotton companies in Zambia emphasise that the verification process helps them to comply with legal regulations (e.g. children, gender issues), and works as a checklist for them. According to the interview partners, the verification process also supports the cotton companies to further improve their management abilities to maintain healthy and productive employees and cotton farmers. This statement is in accordance with external stakeholders, who rank the management abilities of CmiA verified cotton companies and the loyalty of their cotton farmers higher than those of non-verified cotton companies. During the interviews, a positive spill-over effect was reported as the improved management of the verified cotton companies influences the management of non-verified cotton companies positively.

Another important part of the verification process is the implementation of continuous improvement plans. Both Zambian CmiA partners state the high priority of the continuous improvement plans and their intrinsic interest in improving their management capacities through
the verification process. The verification process is therefore also seen as a tool to identify areas for improvement, to get feedback and to identify strengths and weaknesses of the cotton companies. Especially at field level the cotton companies are grateful for further information on the farmers’ needs and thus appreciate the external view. This helps the cotton companies to design their services matching the farmer’s needs. The follow-up of the continuous improvement plans is now a more formalized under Vol. 4.

Despite the positive influence of the verification process on the companies’ management though, the companies’ scope of action regarding farmer services is limited due to external factors. The cotton companies name especially two major challenges: the lack of resources and the structure of the cotton sector in Zambia. The lack of resources is especially relevant for the implementation of social welfare programmes/community cooperation programmes by the cotton companies and the implementation of trainings at field level. Influenced by the low market price for cotton, the cotton companies do not see themselves in a position to implement social welfare programmes to the extent that they would like to. The same applies to the implementation of farmer trainings, as the cotton companies report substantial difficulties regarding the funding of the trainings (e.g. costs for transport of extension agents to the different farmer communities, material). At the same time, the cotton companies appreciate the support of AbTF regarding the development of training materials and emphasise their hope that AbTF will help with sourcing funds to run the farmers’ trainings in the future.

The other challenge mentioned by the interview partners is the structure of the cotton sector in Zambia which is especially relevant for the implementation of criterion “Grading – A transparent system to grade seed cotton is in place”. According to the interviewed cotton companies, the current structure of the cotton market in Zambia with one farmer-level buying price per company makes it difficult to introduce a grading mechanism. As a potential solution, the interview partners mention an intersectoral agreement on the purchase of cotton at farmer level in different grades.

Moreover, with the verification process, AbTF seeks to improve the management capacities of the cotton companies and in the long run improve the cooperation with the farmers. Despite the positive influence of the verification process, external factors still make retaining farmer loyalty a major challenge according to the interviewed cotton companies and external experts. Interview partners state that the expected cotton price is the most important factor for farmer loyalty. Depending on the price of cotton and other commodities like soybeans, farmers move in and out of cotton production depending on their expected income. At the same time, the interview partners point to the fact that cotton farmers do not just go in and out of cotton production, but also change cotton companies depending on the expected cotton price (farm gate price per kilogram). Hence, besides the trainings, other additional factors are important to retain farmers, including prices, timely provision and quality of input factors, as well as the extension services provided for the farmers.

Despite the limiting external factors, CmiA verified cotton companies in Zambia are considered to have a higher farmer retention rate than other Zambian cotton companies. For example, the farmer retention for Partner 1 lies at approximately 50%, which is considered high compared with other cotton companies according to sector experts. Verified cotton companies are seen as more attractive by the farmers in the perspective of most interview partners, as they generally conduct more and better trainings for the cotton farmers. According to the cotton companies, training of the farmers is one of their key inputs in the production cycle: if the cotton company wants to improve their profit, they have to improve the farmers’ yields which also improves the farmers’ living conditions. This strong motivation is further strengthened as the cotton companies state that they would not pass the verification process without the trainings. In this regard, the standard criteria’s focus on the trainings has a positive effect. The extent to
which the cotton companies conduct trainings at field level according to the CmiA Criteria is described in chapter 4.1.1.

Furthermore, the sector-wide challenge of farmer retention results in another challenge emphasised by sector experts: While cotton companies would like to invest in farmer trainings to increase productivity, they do not know whether their investment will pay off due to the high fluctuation within their farmer pool and side-selling practices by the farmers. Interview partners therefore recommend the harmonization of trainings (and training materials) across all cotton companies in Zambia to solve this problem.

Regarding the inputs, interviewees do not note remarkable differences between verified and non-verified companies. Further positive factors to maintain farmer loyalty are good personal relationships with extension officers and distributors, cash payment for cotton and support from the cotton company with other crops.

**Assessment**

Based on the document analysis and the conducted interviews, the evaluation team comes to the following three main conclusions regarding the management of the cotton companies in Zambia: (1) The **verification process works as planned and is supported by the cotton companies**. The criteria of the verification process are aligned with the needs and interests of the cotton companies, and help them to improve their management abilities e.g., regarding child work, gender or work safety. As such, the verification process constitutes an important element in CmiA's impact logic with the overarching objective to improve the farmer’s living conditions. (2) At the same time, **context factors (e.g. cotton price, market structure) in the Zambian cotton market (see chapter 4.1.3) have an important influence on the management of the cotton companies**. Especially due to low market prices the management of the cotton companies is financially limited in their scope of action to further support farmers with trainings and social welfare programmes. (3) Due to external factors, the provision of trainings is just one in many factors to maintain farmer loyalty. However, if farmers choose to grow cotton, **CmiA-verified companies are more attractive than non-verified companies** as they are perceived to have a long-term interest in the farmers’ well-being.

### 4.1.3. Economic and Social Impacts

Through the support of farmer trainings and the verification process, CmiA aims to generate positive economic and social impacts for the cotton farmers. By raising the farmers’ productivity, the initiative seeks to increase the farmers’ cotton yields and consequently also their income from cotton (while reducing their input costs). According to CmiA’s impact hypothesis, this will then lead to better overall living conditions for the farmers. At the same time, CmiA wants to have a direct positive impact on the social dimensions of gender equality, children’s education as well as environmental protection through its trainings.

**Economic impacts**

Regarding the hypothesis on economic impacts - meaning an increased cotton yield and income - the survey results first of all show that the **trainings funded by CmiA have a positive influence on the farmers’ productivity** in Zambia. When comparing the cotton yield of those farmers who did not attend any training to those who attended one or more trainings, it becomes apparent that training attendance contributes to the farmers’ productivity. While farmers with less than one training contact had an average cotton yield of 296 kg per hectare in 2020, those farmers with at least one training contact were able to harvest 346 kg cotton per hectare on average. Farmers who attended at least three trainings report on average an even higher yield with 366 kg per hectare (see Figure 11, Figure 12 and Figure 13).

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17 These absolute numbers regarding the yield need to be treated with caution though, as it is possible that farmers who are especially motivated also participate more frequently in trainings.
Figure 11: Yield of farmers with less than one training contact 2020

Figure 12: Yield of farmers with at least one training contact 2020
The qualitative data mostly sustains the findings from the farmer survey: Farmers, cotton companies and experts report that the average yield of a Zambian cotton farmer lies between 300 and 500 kg (per hectare), and could be potentially higher if good farming conditions prevail. Overall, the trainings are seen as a positive factor influencing the productivity of the farmers. All interview partners alike confirm that a consequent application of the practices taught in the trainings usually improves the cotton harvest.

However, at the same time the evaluation results show that the increase in the farmers’ productivity does not automatically result in a higher income and better living conditions resulting from cotton farming. This is because there are several hindering factors that impede cotton production in Zambia, according to the interview partners. The most important factor is the market price for cotton, which has decreased in the past few years when incorporating the inflation rate. As shown in Figure 14, the inflation-adjusted market price for cotton has dropped from 2.9 (Partner 2) respectively 2.7 (Partner 1) Kwacha per kilogram in 2014 to 1.7 Kwacha per kilogram in 2020 (both partners). This means that the farmers who sell their yield to the cotton companies receive less revenue for their cotton today than in the past years.
According to the interviewed experts and cotton company staff, the unfavourable market conditions (decreasing cotton price) in Zambia reduce the farmers’ motivation to invest a lot of energy in the cotton production and apply labour-intensive agricultural practices. Instead, a lot of farmers drop in and out of cotton every season or decide to grow other crops altogether. Furthermore, it is also common for farmers to change cotton companies every season or to engage in side-selling of the harvest, in order to gain the best available prices on the market. Consequently, this prevents the farmers from developing long-term know-how on cotton production, which has a negative effect on their productivity. Moreover, the unstable farmer pool and side-selling practices reduce the cotton companies’ willingness to invest in trainings and other services to the farmers, as they cannot be sure to get a return on their investment. Apart from the market price, climatic conditions in Zambia have not been favourable for cotton production in recent years, as reported by the interview partners.

In addition, a low quality of the cotton seeds and other inputs such as pesticides, and consequently frequent attacks by pests is seen as a hindering factor by many farmers to increase their yield. According to the farmers, the seed quality has deteriorated substantially in recent years, as many cotton companies buy the inputs from Asian producers offering cheaper prices. Furthermore, the lack of guidance and monitoring by extension officers is another impeding factor for productivity, according to the interviewed experts and farmers. Most importantly though, the interview partners point towards the lacking motivation of many Zambian farmers to invest time and energy in the cotton production due to a cotton price that does not render high profitability.

These context factors together have a negative influence on the farmers’ total cotton yield per hectare, which also becomes apparent when looking at the survey results: According to the numbers from 2020 and 2013-2016 for each season, the average cotton yield increased from 537 kg to 595 kg between 2013 and 2014. In 2015, the numbers reached a peak with an average yield of 709 kg cotton per farmer. In 2016, the yield decreased again to an average of 555 kg, and reached a low point of 308 kg per farmer in 2020 (see Figure 15).

![Figure 15: Total average cotton yield per hectare per farmer](image-url)
Consequently, overall cotton production in Zambia was lower than expected by the cotton companies in 2020: While the Cotton Board of Zambia projected an overall yield of 98,000 tons for the season 2019/2020, the actual yield was reported with 45,000 tons.

The complex interplay between the various context factors and CmiA’s training engagement regarding their influence on the farmers’ cotton yield is depicted in the following figure. Please note that the figure provides a rough sketch of the market context in Zambia and may not include all individual factors at play (see Figure 16).

Figure 16: Intervention context in Zambia

Regarding the influence of the COVID-19 pandemic in 2020, the survey results indicate that this global crisis has not had a noteworthy effect on the cotton production in Zambia so far. 95% of the farmers state that the COVID-19 pandemic did not affect their cotton production and 90% do not see their income from cotton affected by the turmoil (see Figure 17). In the interviews, this impression was confirmed: The farmers, cotton company staff as well as external experts all note that the cotton season 2019/2020 was hardly influenced by the pandemic, as farming activities, trainings and guidance by the cotton companies could proceed as usual.

Figure 17: Influence of the COVID-19 pandemic in 2020

<table>
<thead>
<tr>
<th>Question</th>
<th>N</th>
<th>Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did the COVID-19 pandemic affect your cotton production this season?</td>
<td>209</td>
<td>95%</td>
</tr>
<tr>
<td>Did the COVID-19 pandemic affect your income from cotton this season?</td>
<td>196</td>
<td>90%</td>
</tr>
</tbody>
</table>

In summary, the study results on the cotton yield demonstrate two opposite dynamics: First, trainings can help to increase the farmers’ productivity and thus increase the cotton yield. Second, there are various structural factors in the Zambian cotton market that impede cotton farming and have therefore led to lower cotton yields in the past few years, despite CmiA’s engagement in the trainings.
Further along the impact logic of CmiA, it is assumed that a higher cotton yield leads to a higher income for the farmers, and consequently to better living conditions. However, looking at the gross income gained from the cotton yield, the results of the longitudinal data analysis corroborate the finding that the profitability of cotton production in Zambia has decreased. According to the 2020 farmer survey, farmers received 736 Kwacha for their cotton yield on average, which is much less than in the previous years. In 2013, farmers gained 1163 Kwacha on average from cotton that year, increasing to 1680 (2014) and 1445 Kwacha (2015) in the following two years. In 2016, the income already started to decrease with 1110 Kwacha on average per cotton farmer (see Figure 18).

![Figure 18: Estimated income (Based on inflation-adjusted cotton price and production) in Zambia](image)

The qualitative data from the interviews and focus group discussions complements this picture: According to some interview partners, the farmers’ overall income has increased in the last few years, while the share of the income gained from cotton has decreased. The overall higher income can rather be attributed to an enhanced crop diversity, as explained by the interview partners. Nearly all farmers in Zambia grow a variety of crops such as maize, soybeans, groundnuts and sunflowers. Cotton is not a priority crop in the farmers’ portfolio, as it is just a ‘cash crop’ instead of a ‘food crop’ and hence entails more risks in terms of food safety (as prices can vary and cotton cannot be consumed as food). In the past years, cotton companies and other donors have therefore promoted crop diversity in rural communities as a strategy for risk minimization. If a farmer grows several crops at the same time, the household is less vulnerable to the availability of inputs, market prices, pests or climate conditions with regards to one individual product. The results of the farmer survey confirm that most farmers in Zambia follow the crop diversity approach: More than half of the farmers who grow cotton also produce maize (94%), groundnut (67%) or soybean (54%). Sunflower (37%) and sweet potato (21%) are also common crops in the farmers’ portfolio (see Figure 19).

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18 The data shows the total income from cotton per farmer. The prices stated by the farmers in the respective surveys were adapted based on the yearly consumer price inflation rate in Zambia (IMF database). The first available survey data from 2013 served as the starting point. Prices were not translated into euro in order to avoid distortions from changing currency rates.
The income gained from cotton production is not only determined by the rate at which the farmer can sell his yield though, but also by the input costs. Besides the actual cotton seeds, inputs consist of insecticides, herbicides, fertilizer, equipment and labour resources. According to the interview partners, the overall input costs have increased in recent years, which can be partly explained by the unfavourable currency exchange rate of the Zambia Kwacha, according to their view. As most inputs are purchased outside of Zambia, the currency rate is a key factor in determining the input costs. Furthermore, although most experts state that the market price for cotton is less volatile than for other commodities, the analysis of the farmer survey shows that the market price for cotton has decreased over the past years (when incorporating the inflation rate). Hence, the input costs for cotton farming have increased, while the market price has simultaneously decreased. This has led to a deteriorating relation between input costs and sales revenue for the Zambian farmers. At the same time, several interview partners mention that the trainings have resulted in a better input factor management among the farmers, as they use insecticides and herbicides more purposefully. However, the overall data on the farmers’ income again points towards the difficult market conditions for cotton production in Zambia.

As such, the data indicates that the positive effect of CmiA’s intervention on the farmers’ productivity has not led to an increase in the farmers’ income from cotton. According to the evaluation results, this is because the structural hindering factors in the Zambian cotton market meant that (1) the average cotton yield could not be increased, and (2) the profitability of cotton production (input-revenue ratio) has deteriorated in the past few years.

Social impacts
Consequently, this also means that the study could not find a clear correlation between CmiA’s engagement and an improvement in the farmer’s living conditions. In terms of the frequency of child labour and school attendance, the results from the farmer survey suggest that almost half of the boys and girls aged 7-14 help on the farm sometimes (boys 46%, girls 48%). During weeding and harvesting, 15% of the boys and 19% of the girls spend most of the time on the field; and there is still a substantial number of children who are always involved in farming whenever there is work to be done (boys 17%, girls 14%)19. Accordingly, farmers report that about one third of the children have helped on the field last week (boys 33%, girls 28%), while 10-13% of the children have been involved in field work on the same day of the survey (see Figure 20). According to several interview partners, these numbers are common in Zambia though, and are likely to be found among non-CmiA farmers as well.

19 Data from the previous years is not available, so the longitudinal analysis is not feasible with regards to child labour and school attendance.
At the same time, most interview partners report that children’s attendance at primary school has already been quite common in Zambia in previous years, so they do not see a significant improvement regarding basic education since 2013. However, in the perspective of several interview partners, the farmer trainings have contributed continuously to raise awareness on the importance of education and the adverse effects of child labour. As a result, the interviewed farmers and sector experts explain that most children today only carry out lighter tasks related to cotton production on an occasional basis (e.g. in harvesting season). While it is still common for children to support their families on the cotton fields (as demonstrated in the survey results and noted by most interview partners), parents are now more aware of the importance of education and potential health risks resulting from farm work for children and thus pay more attention to the tasks carried out by children. The same applies to the awareness for gender roles. Several interview partners note that there is a higher awareness in Zambian farmer communities today concerning health risks for pregnant women and equal rights to education for girls. It needs to be noted though that the data does not show a direct link between farmer trainings and children’s education levels, the frequency of child labour or gender norms. Further, context factors such as government education programmes are also likely to have an influence in this regard, so that a direct attribution to CmiA’s engagement is not possible to state here.
Similarly, CmiA’s engagement does not seem to have a positive impact in terms of the farmers’ food security in Zambia. Although the farmer trainings have resulted in higher yields for some farmers who attended the trainings regularly, they have not led to an increase of the farmers’ income from cotton, so a potentially higher overall income cannot be attributed to CmiA’s intervention. Furthermore, the results from the farmer survey indicate that hunger is still a pervasive problem in Zambia’s rural areas: 85% of the farmers interviewed in 2020 reported having experienced a hunger period in the past 12 months, compared to 29% in 2015. Moreover, 57% of the farmers in 2020 who experienced hunger perceived this hunger period to be worse than the year before – compared to 22% of the farmers in 2015 (see Figures 21 and 22). These numbers suggest that food security in the cotton-growing areas in Zambia has rather deteriorated than improved, as the cotton production has not resulted in higher incomes for the majority of farmers. However, as in the case of child labour and school attendance, it is not possible to assume a direct link between CmiA’s intervention and the local food security situation, because various context factors such as weather conditions and pests have an influence in this regard. In this context, other studies have also found that household income and food security are not directly correlated.20

Figure 21: Farmers’ perception of hungry periods in 2015

Figure 22: Farmers’ perception of hungry periods in 2020

Regarding the health situation of the cotton farmers in Zambia, the qualitative data suggests that the access to medical care has generally improved in the past ten years. As several interview partners note, the availability of doctors and medicines has increased, while financial resources to pay those services are still scarce. The results of the farmer survey confirm these insights: More than half of the farmers (54%) state that they are always able to get medical care for their household members if necessary. In terms of medicines, the majority of farmers report that they get access to those needed medicines sometimes (66%), while 30% of the farmers get access always or most of the time. In contrast, the financial means to pay the needed medical care or medicines are rarely available, as 69% of the farmers state they can never pay for the medical care, and 59% state only being able to pay the medicines sometimes (see Figure 23).

Figure 23: Access to medical care and medicines 2020
As similar data from the previous years is not available, it is not possible at this point to analyse the development over time, but it needs to be mentioned here again that the access to medical care and medicines depends on a variety of context factors that do not lie within CmiA’s scope of influence. The only mechanism through which CmiA could influence the access to medical care and medicines is through enabling the cotton farmers to increase their cotton yield and consequently their income from cotton. As the majority of Zambian farmers has not been able to increase their yield through the participation in regular trainings, there is currently no evidence for any impact related to medical care stemming from CmiA’s engagement.

However, there is one aspect concerning the farmers’ health situation that does indicate a positive correlation to CmiA’s intervention: The data suggests that the trainings contribute to the farmers’ health through the education on pest management. In the trainings, farmers learn essential information on how to handle insecticides and herbicides to avoid any health hazards and also protect the environment. According to many interview partners, the CmiA-supported trainings have an essential influence on reducing the use of and safe disposal of chemicals, by raising awareness and effecting a change in the farmers’ attitude.

Assessment
The analysis reveals that the Zambian cotton market presents a challenging environment for the Cotton made in Africa initiative in its endeavour to improve the living conditions of cotton farmers. Due to various impeding structural factors such as the market structure, cotton price, seed quality, and climatic conditions, CmiA has not been able to achieve a significant positive economic and social impact on the farmers’ lives. However, the initiative has succeeded in lessening the detrimental effects of the unfavourable environment and thus helped to prevent further deterioration of the situation for the Zambian cotton farmers to some extent.

First of all, the results of the study demonstrate that the trainings supported by CmiA do have a positive influence on the farmers’ productivity and thus contribute to higher cotton yields - when implemented on a regular basis.

At the same time though, the findings show that a better productivity does not lead to higher incomes among the cotton farmers, because external market factors have reduced the profitability and thus attractiveness of cotton farming for many smallholder farmers in recent years. Hence, a lot of farmers have stopped growing cotton. Of those who have continued to grow cotton, the majority has not been able to increase their income from cotton, although some farmers managed to increase their yield through regular trainings. Because of the deteriorating relationship between input costs and sales revenues, even those farmers with a higher yield have mostly not received more revenue from it. While several farmers have experienced an overall higher income and thus better living conditions in recent years, this is rather based upon a higher crop diversity and other sources of income than cotton farming. In consequence, improvements in the farmers’ economic situation cannot be attributed to CmiA’s engagement in Zambia, as the intervention did not lead to higher incomes from cotton farming.

Based on the available data, it can thus be concluded that CmiA’s approach to improve the farmers’ situation is only successful if the trainings are conducted regularly (i.e. at least 2-3 training contacts per season21) and external market conditions allow for profitable cotton farming. As neither of these two conditions consistently prevailed in Zambia throughout the period of 2013-2021, CmiA was not able to contribute to a significant positive economic impact among the farmers.

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21 There were only extremely few farmers who reported having attended more than three trainings, so the evaluation team cannot derive any conclusions on the effect of more than three training contacts per season.
In terms of the social impacts, it can be noted positively that CmiA's support for trainings has plausibly contributed to cultural changes in the farmer communities. The results of the study indicate that the trainings have improved the farmers’ attitudes and practices regarding the protection of the environment and health through better handling of chemicals. Furthermore, the trainings seem to contribute to a higher awareness for the importance of education vs. child labour as well as gender equality. However, these changes cannot be solely attributed to CmiA's engagement, as they are likely to be influenced by other educational campaigns and societal developments as well.

Overall, it can thus be stated that through the support for trainings and the cotton companies’ management, CmiA has been able to counteract the negative structural market factors in Zambia to a certain extent, helping the farmers to increase their productivity and preventing an even worse economic situation for the farmers. Furthermore, CmiA has been able to contribute to a higher awareness for environmental and societal concerns within farmer communities. However, the initiative operates in an extremely challenging environment, in which the context factors currently prevent CmiA from achieving a bigger economic and social impact on the farmers' lives.
4.2. CÔTE D’IVOIRE

4.2.1. Trainings

A central element of the Cotton made in Africa initiative consists in the provision of trainings for smallholder cotton farmers in the partner countries. As outlined in further detail in chapters 2.3 and 4.1.1, AbTF thereby follows the underlying assumption that the trainings will help increase farmers’ productivity, improve their income and living conditions, and protect the environment as well as their health.

**Content of trainings**

As a first step in assessing the contribution of the trainings to the envisaged impacts, the evaluation examined the content of the trainings. According to the cotton companies, agricultural advisors (*conseillers agricoles*, C/A), and farmers themselves, the majority of trainings in Côte d’Ivoire follows the production cycle of cotton and covers different Good Agricultural Practices (GAP). Starting with information on plant removal and land preparation, the cotton companies continue to teach the farmers on planting methods, weeding, gap filling, pest control as well as the use of phytosanitary products and fertilisers. At the end of the season, the trainings are concluded with information on harvesting and storage. Cross-cutting issues such as CmiA child labour criteria, gender roles, business skills and HIV prevention are integrated in the annual training cycle based on the farmers’ demand. In addition, the qualitative interviews revealed that instructors tend to use popular topics with high participation rates to integrate aspects from other modules with lower attention rates, including content from trainings on cross-cutting issues. In addition, the training cycle also considers external influencing factors. For example, the training on clearing (of new cultivation areas) is offered increasingly less often, which is linked to a growing shortage of cultivable land.

In this regard, the survey data shows that the vast majority of farmers in Côte d’Ivoire participated in at least one training with farmers participating in an average of 3-7 training sessions per year (see also following sections). As confirmed by both the survey data and the focus groups, the training on phytosanitary treatments and the application of fertilisers as well as on land preparation were particularly popular among the Ivorian farmers (see Figure 24). The focus groups and in-depth interviews further revealed that farmers – while already having received trainings on GAP before the verification by CmiA – specifically associated the trainings on topics such as child labour and work security with the verification by CmiA.
Didactical approach and quality of the trainings

As outlined before, CmiA’s impact logic is based on the assumption that the trainings can only contribute to the desired impact if they follow a suitable methodological approach and fulfil the needs and expectations of the farmers regarding quality. Hence, the study also investigated the organisation and methodological design of the trainings in Côte d’Ivoire.

In this regard, the evaluation results point out that both CO.I.C and Ivoire Coton organize the majority of their trainings through a system of agricultural consultants, who are permanently present in the cultivation area (see below). These mostly hold agricultural diplomas and are further trained by the cotton companies. The training systems of CO.I.C. and Ivoire Coton thus are centred around train-the-trainer approaches. (Few) additional/specialised trainings are provided by external providers such as CNRA (Centre National de Recherche Agronomique) or producers of phytosanitary products.

Each agricultural consultant (C/A) is responsible for up to 200 farmers and hence assigned to two to three villages on average, depending on the population density of the region. As the C/A are based in the respective locality, they tend to know their audience and can thus ensure a close monitoring of and support to the farmers. Focus groups discussions and interviews with lead farmers and C/A revealed in this regard that their support goes beyond the trainings themselves: They are also approachable to answer questions and are present on site throughout the season. In carrying out the trainings (e.g. gathering of the cotton farmers), the C/A are supported by the lead farmers (chef de OPA).

Figure 24: Training topics 2020

<table>
<thead>
<tr>
<th>Topic</th>
<th>Percentage</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weed control (Timely weeding, weed control methods, herbicide use)</td>
<td>90.8%</td>
<td>(n=207)</td>
</tr>
<tr>
<td>Integrated pest management</td>
<td>83.8%</td>
<td>(n=191)</td>
</tr>
<tr>
<td>Proper use and storage of pesticides</td>
<td>80.3%</td>
<td>(n=183)</td>
</tr>
<tr>
<td>Harvest techniques</td>
<td>73.7%</td>
<td>(n=168)</td>
</tr>
<tr>
<td>Soil fertility techniques (composting, mulching, manure tea, etc.)</td>
<td>71.9%</td>
<td>(n=164)</td>
</tr>
<tr>
<td>Land preparation</td>
<td>68.0%</td>
<td>(n=155)</td>
</tr>
<tr>
<td>Crop rotation</td>
<td>62.7%</td>
<td>(n=143)</td>
</tr>
<tr>
<td>Correct plant population (plant spacing, gap filling, thinning)</td>
<td>61.0%</td>
<td>(n=139)</td>
</tr>
<tr>
<td>Problems with child labour</td>
<td>58.2%</td>
<td>(n=87)</td>
</tr>
<tr>
<td>Gender roles</td>
<td>171%</td>
<td>(n=39)</td>
</tr>
<tr>
<td>HIV prevention</td>
<td>11.4%</td>
<td>(n=26)</td>
</tr>
<tr>
<td>Early planting</td>
<td>11.0%</td>
<td>(n=25)</td>
</tr>
<tr>
<td>Business skills</td>
<td>8.3%</td>
<td>(n=19)</td>
</tr>
<tr>
<td>Other</td>
<td>1.8%</td>
<td>(n=4)</td>
</tr>
<tr>
<td>No trainings</td>
<td>0.9%</td>
<td>(n=2)</td>
</tr>
<tr>
<td>Do not know</td>
<td>0.9%</td>
<td>(n=2)</td>
</tr>
</tbody>
</table>

On which of the following topics have you received training?
In terms of training methods, the C/A use didactical tools such as visual material, handbooks, and demo plots. It was highlighted in the interviews that the quality of trainings has increased following the verification by CmiA. This was due to the provision of didactical tools like manuals/handbooks and image boxes. The results of the in-depth interviews and focus group discussions further reveal that most farmers who have attended a training in Côte d’Ivoire are satisfied with the quality, and generally confirm its positive effect on their (good agricultural) farming practices, as explained in the following section.

Training attendance and application of agricultural techniques

With regards to the overall number and frequency of trainings in Côte d’Ivoire, the quantitative and qualitative data indicates that in the 2020/21 season more trainings were attended than earlier. This finding refers to all training topics, as the results from the farmer survey show: In 2015, there was an average of 2.19 training contacts, which increased in the following years to an average of 5.1 training contacts in 2020 (see Figure 25). This is equally confirmed by the qualitative data, as the agricultural advisors report an average of four to eight training contacts per farmer per season. It needs to be noted though that these numbers only include “official trainings” offered by the cotton companies. According to the interview partners, knowledge transmission can also take place in informal meetings as well as through advice and guidance by the agricultural advisors.

The survey data further reveals slight differences between the two cotton companies in Côte d’Ivoire. Training contacts of farmers of Partner 1 increased from two contacts per farmer and season in 2015 to 6.83 contacts on average in 2020. Cotton farmers producing for Partner 2 equally reported an average of about two training contacts in 2015; however, training contacts here only increased to 3.34 contacts on average per season (see Figures 26 and 27). Hence, with both cotton companies having had similar attendance levels in 2015 with an average of

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22 A training contact is defined as a group training session, one-on-one briefing or instruction by cotton company staff / external trainers. Training contacts can take place in a formal or informal setting.

23 In the examined season (2020/21), the COVID-19 pandemic impacted the mode of conduct of the trainings, while not generating any fundamental disruptions to the training cycle. Due to social distancing regulations, trainings could only be carried out in smaller groups than usually (up to 60 participants normally). This in turn led to a higher number of training sessions conducted per C/A. As the C/A are located in the area of the villages they assist, they were not impeded by travel restrictions.
around two training contacts per season, the overall increase is largely driven by Partner 1.

Figure 26:
Number of training sessions attended by farmers per CmiA partner 2015

![Bar chart showing the number of training sessions attended by farmers per CmiA partner in 2015 for Côte d'Ivoire. Partner 1 has a mean of 2.01 sessions per farmer, and Partner 2 has a mean of 2.29 sessions per farmer.]

Figure 27:
Number of training sessions attended by farmers per CmiA partner 2020

![Bar chart showing the number of training sessions attended by farmers per CmiA partner in 2020 for Côte d'Ivoire. Partner 1 has a mean of 6.83 sessions per farmer, and Partner 2 has a mean of 3.34 sessions per farmer.]

A similar picture emerges with regard to the different zones (i.e. geographic entities). As Figure
28 shows, training contacts per farmer and seasons (in 2020/21) vary between six and eight for the zones covered by Partner 1 and between 3.5 and four trainings by Partner 2. Conclusions about the influence of the distance from the respective directorate of the cotton company on the frequency of trainings, however, are neither recognisable on the basis of the quantitative nor the qualitative data. Instead, due to the decentralised system of the C/A, the cotton companies are generally able to serve all cotton growing areas equally.

Figure 28: Average number of training sessions attended by farmers by geographical area (zone) 2020
Tengrela, also part of Partner 2 territory, shows a particularly low number of training contacts per farmer and seasons (1.5 on average). According to the qualitative data, this is due to an increased interest in gold mining in the region. At the same time, the cotton farmers interviewed here also reported difficulties in applying the GAP. This observation – specific to an individual case – already points towards a link between training attendance and confident application of good agricultural practices that will be explored further in the following paragraphs.

In order to positively affect farmers’ income from cotton and hence livelihoods, the farmers need to apply the techniques and skills acquired in the trainings, as formulated in CmiA’s impact hypothesis. In this regard, the qualitative data shows a high level of application of Good Agricultural Practices (GAP) by the Ivorian farmers. According to the C/A, cotton companies’ management and experienced farmers, reasons for not applying the training content include the adherence to old cultivation methods, negligence, lack of time and labour force (manpower) due to the cultivation of other crops, and lack of equipment.

As reported in focus group discussions and in-depth interviews, crop rotation poses a particular challenge, which – in part – can serve as an example for reasons why the GAP are not applied. Crop rotation is encouraged by the GAP in order to maintain/increase soil fertility. However, farmers in Côte d’Ivoire report several disincentivising factors. As the interviews reveal, the area used for cotton can often not be entirely covered by other crops planted in a crop rotation system. That is, there is no full complementarity between crops in crop rotation. Moreover, the prices farmers can achieve with the other crops do not necessarily provide strong incentives for engaging in a full crop rotation system.

Despite these challenges with regard to a complete rotation system, the vast majority of cotton farmers in Côte d’Ivoire grow maize (92%), rice (88%), groundnut (72%) or cashew (49%) (see Figure 29).

**Figure 29: Crop diversity among farmers**

Besides cotton, what are your most important crops? Select up to four.

<table>
<thead>
<tr>
<th>Crop</th>
<th>Percentage</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maize</td>
<td>91.7%</td>
<td>(n=221)</td>
</tr>
<tr>
<td>Rice</td>
<td>88.4%</td>
<td>(n=213)</td>
</tr>
<tr>
<td>Groundnut</td>
<td>71.8%</td>
<td>(n=173)</td>
</tr>
<tr>
<td>Cashew</td>
<td>48.5%</td>
<td>(n=117)</td>
</tr>
<tr>
<td>Beans</td>
<td>12.9%</td>
<td>(n=31)</td>
</tr>
<tr>
<td>Millet</td>
<td>5.4%</td>
<td>(n=13)</td>
</tr>
<tr>
<td>Other</td>
<td>4.1%</td>
<td>(n=10)</td>
</tr>
<tr>
<td>Sorghum</td>
<td>2.5%</td>
<td>(n=6)</td>
</tr>
<tr>
<td>Sweet potato</td>
<td>1.7%</td>
<td>(n=4)</td>
</tr>
<tr>
<td>Do not know</td>
<td>1.2%</td>
<td>(n=3)</td>
</tr>
<tr>
<td>Soybean</td>
<td>0.8%</td>
<td>(n=2)</td>
</tr>
<tr>
<td>Sesame</td>
<td>0.8%</td>
<td>(n=2)</td>
</tr>
<tr>
<td>Refused</td>
<td>0.4%</td>
<td>(n=1)</td>
</tr>
<tr>
<td>Cassava</td>
<td>0.4%</td>
<td>(n=1)</td>
</tr>
</tbody>
</table>

0% 20% 40% 60% 80% 100%
The evaluation further examined whether the trainings play a role in the farmers’ decision for a certain technique. Here, the data reveals that even though the evaluation results emphasise the relevance of the trainings and especially the C/A’s follow-up support in fostering the application of agricultural techniques, the main factor for determining farmers’ decisions with regard to weed control, planting, and gap filling remains the farmers’ own experience (see Figure 30). Among the interviewed farmers – trained and untrained – the majority state that their agricultural practices draw on their proper experience, for example, when deciding on what type of weeding to use (81%), when to weed (81%), when to plant the cotton (62%), or when to do gap filling (76%).

At the same time, between 34% and 46 % of farmers in Côte d’Ivoire (depending on the technique) indicate that the C/A (equivalent to extension agents) were important for them in deciding on the application of agricultural practices; more important than turning towards other farmers and/or family members (see Figure 30). The evaluation results suggest that this may be due to the strong presence and availability of the C/A (being assigned to a fixed group of villages/farmers and located in the same area).

Figure 30: Knowledge sources of trained and untrained farmers 2020

The important role of the C/A further manifests itself in the fact that farmers identified their acquired knowledge more strongly with the C/A than with a particular training: While almost no farmers indicate that having learned about a specific aspect in a training gave them reason for applying a technique (see above, Figure 30), the proportion of farmers who say they turn to the C/A is significantly higher. This is particularly high among farmers who have participated in at least one training: Among them, between 46 % and 63 % turn towards the C/A for guidance on decisions that concern the application of specific agricultural techniques (see Figure 31 below). Especially when it comes to the question of when to plant cotton, the C/A seem to play a decisive role. In this case, the farmers who have participated in trainings rely more frequently on the C/A’s advice than on their own experience. All in all, the evaluation data shows that the C/A constitute an integral part of the CmiA training system in Côte d’Ivoire (see Figure 31 below). Their advice is equated with training content on GAP – an observation, which was equally confirmed in in-depth interviews and focus group discussions.
Finally, interviewed farmers and C/A indicate that the trainings contribute to a change in awareness among Ivorian farmers. For example, interviewees report an increased awareness for health protection measures when applying pesticides, or the use of less aggressive products. Others report better maintenance of the fields, e.g. due to fewer spraying packages being left behind, or better financial management among the farmers.\(^{24}\)

### Assessment

Based on the analysis of the data with regards to the effectiveness of trainings in contributing to CmiA’s intended impacts, three main results can be found: (1) First of all, the **quality of the trainings** in Côte d’Ivoire can be noted positively. Training systems of both CmiA partners are based on a decentralised structure: Agricultural advisors (conseillers agricoles), who already possess relevant professional expertise by training and are further trained by the cotton companies; who are permanently present in the cultivation area; and responsible for up to 200 farmers (approx. 2-3 villages) each, form the core of this training system. The evaluation confirms that this system ensures extensive and regular input through trainings as well as the follow-up/monitoring of the application of good agricultural techniques and occasional and demand-oriented consultations.

(2) In the past years, this training system in Côte d’Ivoire was further professionalised, inter alia through CmiA, as manifested in the introduction of **new trainings topics** (such as child labour) and a higher frequency of trainings. In particular, the prevention of child labour or measures for environmental protection are perceived as related to CmiA’s engagement. Farmers from both companies are highly satisfied with the content and quality of trainings. This is a necessary pre-requisite for the application of the training contents, in particular good agricultural practices, and for behaviour change through sensitisation.

(3) Besides farmers’ own experience, the presence of and personal relation to the agricultural advisors favour the uptake of training content in Côte d’Ivoire. Farmers, in particular those who regularly participate in trainings, strongly orientate themselves towards the agricultural

\(^{24}\) The application of health protection measures and the disposal of empty packaging are, however, among the aspects (from the CmiA Standard criteria), for which both cotton companies still see room for improvement for themselves (see also chapter 4.2.2 on the management of cotton companies).
advisors, meaning that they are accepted as knowledgeable resource persons, even before other farmers or family members. The advisors’ (physical) proximity to the farmers – being permanently based in the area where they conduct trainings – hence constitutes one of the key success factors of the training system. This makes it possible for the farmers to easily get advice also outside of the trainings, which is gladly used by the farmers, and which seems to have considerably fostered the application of GAP.

All in all, it can be concluded that CmiA in Côte d’Ivoire was able to build on good conditions for an effective training system, used them sensibly and effectively, and contributed to the further professionalisation of the system.

### 4.2.2. Management of cotton companies

One of the other assumptions in CmiA’s impact logic is that the management of the cotton companies constitutes an important lever for improving farmers’ living conditions. Through CmiA’s verification process, cotton companies are supposed to improve their management capacities. In turn, better management is assumed to lead to a better work relationship with the farmers, which is expected to eventually contribute to improved living conditions of farmers (see also chapter 2.3 and 4.1.2).

During the evaluation, the verification process in Côte d’Ivoire was found to be properly implemented according to the CmiA guidelines. The process encompasses two steps: In the first part, the cotton companies in Côte d’Ivoire fill in a self-assessment once per year. These are reviewed by AbTF; missing parts are subsequently filled in or clarifications undertaken by the cotton companies. In the second part of the verification process, every company undergoes a yearly audit. Audits are carried out alternatingly at the field and ginnery level. Independent auditors check the cotton company’s compliance against CmiA’s criteria during field visits. The results are documented in an audit report. On this basis, management plans are drawn up by the cotton companies which outline activities to improve until the next audit. These are then reviewed with regards to their implementation in the next audit.

According to the analysed verification reports 2016-2019 and the interview results, the verification process in Côte d’Ivoire works as foreseen and its various steps are implemented in their entirety: Self-assessments, AbTF-reviews and audits are complete and management improvement plans from the cotton companies are available. Interviews with the companies’ management, the heads of zones and agricultural advisors further confirm that the management (across the different levels) has a good knowledge of the CmiA criteria, their requirements, and their implications. Finally, interviewees did not identify any fundamental challenges or difficulties with the process.

As outlined above, an important part of the verification process is the implementation of continuous improvement plans. Both interviewed cotton companies in Côte d’Ivoire state the high priority of the continuous improvement plans and their willingness and commitment to their implementation. The verification process is seen as a tool to identify areas for improvement, to get feedback and to identify strengths and weaknesses of the cotton companies. On the one side, interviewees stated that cotton companies, for example, were able to improve pesticide storage, to clarify procedures for grading seed cotton, and to kick-start efforts – implemented with the C/A – regarding threshold treatment and pest control. On the other side, interview partners from the companies’ management were also well aware of areas that still need further improvement (which matched the ones identified in the analysed verification reports 2016-
Case Study: Research on impacts of the CmiA initiative on livelihoods of small-holder farmers in sub-Saharan Africa

2019). Among these, both companies in Côte d’Ivoire mention crop rotation (see also previous chapter). In the perception of interview partners, crop rotation is effective among the majority of cotton producers who alternate cotton cultivation with other crops during two consecutive cropping seasons, but the integration of food crops in the rotation system remains weak and is not yet systematic.

According to the interview partners, the verification process also supports the Ivorian cotton companies to further improve their management abilities. In this context, interviewees stated that since the verification with CmiA, they were able to increase the number of field visits of the Agricultural Production Department (Direction Production Agricole). During the interviews, experts further reported a positive spill-over effect as the improved management of the CmiA verified cotton companies influences the management of non-verified cotton companies positively. As an example, it was mentioned that Partner 1 had started using Biosol (organic fertiliser), which shows good results in responding to the challenge of decreasing soil quality. Other cotton companies have now equally started to apply Biosol instead of conventional NPK fertilisers. Overall, experts, however, did not report significant differences between the verified and non-verified cotton companies in Côte d’Ivoire (in terms of cotton yield25 and quality), inter alia due to this imitation effect.

Despite the positive influence of the verification process on the companies’ management though, the companies’ scope of action regarding farmer services is also determined by external factors, most importantly the structure of the cotton sector in Côte d’Ivoire. Being fundamentally different from the – mostly inhibiting – conditions in Zambia (see chapter 4.1.2), the structure of the cotton sector here provides a conducive environment for cotton production, and thus for CmiA’s engagement and the hypotheses on which the verification grounds itself.

Operational since the beginning of the 2017/18 campaign, the zoning of the cotton basin (zonalage26) put an end to the challenge of farmer retention. This reform consisted of a division of the cotton basin into Exclusive Activity Zones (Zones Exclusives d’Activités, ZEA) around existing cotton companies (see Figure 32). Thus 18 zones were identified on the basis of administrative boundaries. The ZEAs are optimal production and collection areas defined around the 14 ginning units.

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25 The national average yield for the 2020/21 season was at 1.2 t per hectare. For comparison, the annual yield for the same season amounted to 1.3 t/ha for Partner 1; Partner 2 reported an annual yield of 1.1 t/ha (see also chapter 4.2.3).

26 This zoning of the cotton basin was introduced after a period of free competition between (mainly private) ginner from the year 2000. Earlier, the Ivorian cotton sector had been centralised first under the Compagnie Francaise de Développement du Textile (CFDT) (1945-1975), then by the parastatal company CIDT (1975-1998) (Gerely, Nicolas (2010). La filière Coton de Côte d’Ivoire. Africa Region Working Paper Series No. 130 (b). World Bank, Washington, DC.).
The objective of this decision was to optimise the logistical cost of transporting cotton to the industrial units, to limit wastage in the industrial units, to limit losses in the supervision, to secure the productions, to ensure the professionalization of producers as well as the improvement of the living conditions of cotton producers. Based on the zoning, farmers in Côte d’Ivoire are automatically assigned to a cotton company based on their location; farmers can neither choose which cotton company to sell to nor switch between companies. Therefore, retaining farmer loyalty against other cotton companies does not affect the cotton companies in Côte d’Ivoire. In line with objectives of the zoning, interview partners also confirmed further advantages of the zoning, as it ensures that the cotton companies’ investments in the form of trainings can pay off over the years.

The complex interplay between the various context factors and CmiA’s training engagement regarding their influence on the farmers’ cotton yield is depicted in the following figure. Please note that the figure provides a rough sketch of the market context in Côte d’Ivoire and may not include all individual factors at play (see Figure 33).
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Figure 33: Intervention context in Côte d’Ivoire

Against this backdrop, farmer retention is much more concerned with the farmers’ decision to continue growing cotton - a decision which is taken every year anew. Here too, as the evaluation data shows, the verification provides positive incentives for farmers to continue cotton cultivation – reinforced by favourable framework conditions.

Firstly, the verification by CmiA allows cotton companies to obtain better prices for their cotton on the markets. This also benefits the attractiveness of cotton for Ivorian smallholder farmers if the prices achieved are “passed on” by the cotton companies to the farmers. The relative profitability (for farmers) of Ivorian cotton is further supported by a relatively stable cotton price in Côte d’Ivoire (see Figure 39 in chapter 4.2.3; the price is stabilized by the Ivorian government through subsidies). Both the good prices that the cotton companies can achieve, and the relative price stability provide farmers with a high degree of stability, planning reliability and secure expected incomes. This makes cotton the most attractive cash crop for farmers in the cotton growing zone in the north of Côte d’Ivoire (see Figure 33 above). Focus group discussions and interviews with (lead) farmers confirmed that farmers either did not perceive high incentives to switch to other cash crops as often or their attractiveness is diminished by higher price fluctuation and hence lower reliability.

Secondly, according to the interviewees, the verification itself also contributes to the farmers’ loyalty: Their perception that the company structures are part of a larger system as well as the high degree of professionalisation (e. g. through the system of the C/A) build trust among farmers that they will be compensated for their efforts. According to lead farmers, this conviction is one of the main factors for farmers when deciding whether to continue cotton cultivation.

Thirdly, the cotton companies themselves incentivize continuous cotton production by proffering credits to the farmers. With these, the farmers can purchase the necessary production inputs. Later, the credit amount is deducted from revenue that the farmer gains from the respective season’s production.

All in all, the interviewed C/A, heads of zones and cotton company management stressed that the both CmiA partners, have a relatively stable pool of farmers and that the numbers of farmers abandoning cotton are very low. A certain pressure only arises (depending on the locality) from gold mining. With the promise of quick profits, gold panning lures unskilled workers away.

Source: Syspons, 2021
from cotton production and absorbs a labour force of people who would otherwise be employed as seasonal/temporary workers (e.g. during harvesting). However, according to experts, this does not directly affect cotton producers and their decision to continue growing cotton (see also chapter 4.2.3).

Trust as a major factor also became evident in the COVID-19 pandemic: According to the heads of zones and the cotton company management (Partner 1), an impact of COVID-19 has been felt through the accumulation and storage of cotton bales from two seasons (2018/2019 and 2019/2020) in factories of Partner 1. But despite this, all cotton farmers received their payment in time, which proves the good financial management and resilience of the cotton companies’ management system, according to the interviewees. Management representatives furthermore report that the verification along with a stable network of buyers and suppliers gave the companies in Côte d’Ivoire the confidence not to hold back any payments. In addition, Partner 2 reported having felt an impact of COVID-19 on its activities in the supply of inputs (Uree fertiliser) to producers during the 2020/21 season (Partner 1 did not face the same challenge as they had purchased fertiliser before the closure of the borders). However, both companies confirm that the pandemic overall did not cause any major disruptions to the production cycle – a perception equally shared by the farmers. In the survey, 72% of Ivorian farmers state that the pandemic had no impact at all on their cotton production and the income from cotton, while 24% and 25% respectively state that the pandemic affected production and income only a little (see Figure 34 below).

![Figure 34: Influence of the COVID-19 pandemic in 2020](image)

Assessment
Based on the collected evidence, the evaluation team comes to the following three main conclusions regarding the management of the cotton companies in Côte d’Ivoire: (1) The verification process works as planned and its various steps are implemented in their entirety. Furthermore, the cotton companies’ management (including heads of zones and agricultural advisors) has a good knowledge of the CmiA criteria, their requirements, and their implications and commits to the implementation of continuous improvement plans. Consequently, the cotton companies, over the past years, were able to improve their performance on the CmiA criteria and increase their overall management capabilities. (2) The verification process and (consequently) the management of the cotton companies also affect the work relationship with the farmers positively. This became apparent in the context of the COVID-19 pandemic when the CmiA verification and respective professionalisation of the cotton production system conveyed security and stability and consequently retained trust and loyalty among farmers.
(3) Context factors (e.g., cotton price, market structure) in the Ivorian cotton market provide a conducive environment for CmiA and its underlying hypotheses: Firstly, the zoning of the cotton basin (zonage) ensures that the cotton companies’ investments in the form of trainings can pay off over the years without the danger of side-selling and fluctuation within the farmer pool. Secondly, a relatively stable cotton price as well as the perceived reliability of the companies motivate farmers to continue cultivating cotton. As a result, abandonment is rare and the number of farmers producing cotton increases.

4.2.3. Economic and Social Impacts

Through the support of farmer trainings and the verification process, CmiA aims to generate positive economic and social impacts for the cotton farmers. As outlined in chapter 2.3, it is assumed that living conditions of farmers improve due to an increase in productivity, yield and hence income from cotton. At the same time, the trainings are expected to have a direct positive impact on the social dimensions of gender equality, children’s education as well as environmental protection.

Economic impacts

The impact hypothesis is that the CmiA supported trainings have a positive economic impact for the farmers, in terms of an increased cotton yield and as a result in terms of an increased income. This hypothesis is largely confirmed by both the interviews and the survey data. Firstly, there is a strong link between trainings and cotton yields in Côte d’Ivoire. When analysing the yields of farmers in the season 2020/2021 with regards to the number of trainings they attended, it becomes clear that frequent training attendance is linked with an increase in farmers’ productivity. For those farmers who attended an average of one to five trainings, yields amounted to 1010 kg per hectare on average (see Figure 35). In contrast, farmers who attended more than five trainings, were able to obtain significantly higher yields of 1165 kg per hectare on average. Within this group, the most important increase in average yields can be observed among farmers who attended six to ten trainings. These farmers were able to harvest 1148 kg per hectare (see Figure 36). Farmers with an even higher training attendance of more than double the average attendance, i.e. more than ten trainings, achieved a yield of 1189 kg per hectare (see Figure 37).27

27 These absolute numbers regarding the yield need to be treated with caution though, as it is possible that farmers who are especially motivated also participate more frequently in trainings.
Figure 35: Yield of farmers with 1-5 training contacts 2020

Figure 36: Yield of farmers with 6-10 training contacts 2020
Only very few farmers surveyed in Côte d’Ivoire attended no trainings at all (N=26). Therefore, the data does not allow one to draw strong conclusions about the difference between the yield of trained and completely untrained farmers. The untrained farmers surveyed had an average cotton yield of 995 kg per hectare in 2020, which is only slightly less than farmers who attended one to five trainings. Hence, it is not just training attendance per se, but a frequent one, that has contributed to farmers’ productivity in Côte d’Ivoire.

The evaluation data further corroborates the positive link between the training frequency and cotton yields. As explained in chapter 4.2.1, training attendance per season rose from an average of two training contacts per farmer in 2015 to an average of five training contacts in 2020. As Figure 38 depicts, in the same time frame, average yields slightly increased from 1077 kg per hectare to 1137 kg per hectare. However, it should be noted that according to the qualitative data, reduced precipitation in 2020/21 led to lower yields than expected in that season. This means that the training effect on yields would be even more strongly visible, had there been no reduced precipitation in 2020/2021 in Côte d’Ivoire.
The qualitative data from the interviews concurs with these findings and equally establishes a clear link between trainings and yields in Côte d’Ivoire: The interview partners largely confirm that the farmers who apply the GAP acquired through the trainings generally tend to obtain higher yields. For example, input factor management has been improved over the last years, e.g., through a more targeted application of pesticides. However, the interviewees also agree that yields could be increased further by an even more consistent and comprehensive application of GAP. This is especially the case for organic manure, which would enhance soil fertility if used more extensively. Another means to increase cotton yields, according to the interview partners, is optimising the application of phytosanitary treatments. Representatives from the management of the Ivorian cotton companies estimate that under good conditions and through even better application of GAP, yields could potentially amount to 1.5-2 t per hectare\(^{28}\). For comparison, the actual yield obtained by the two CmiA partners in the 2020/2021 season was at 1.3t per hectare for Partner 1 (with a range from 1.1 t to 1.5 t per hectare) and at 1.1t per hectare for Partner 2 (wider margins of yields from 400 kg per hectare to 1.8 t per hectare\(^{29}\)), as reported by the cotton companies, the C/A, farmers, and sectoral experts.

Moreover, in Côte d’Ivoire higher cotton yields translate fairly directly into an increase in farmers’ income. This can be observed in the survey data on farmers’ income (based in cotton production and inflation adjusted). Whereas in 2015, the farmers surveyed had an average income of around 1,236,000 CFA, in the 2020/2021 season it amounted to an average of about 1,456,000 CFA. This represents an increase of almost 18% to 2015. This increase can be largely linked to the increase in cotton yields that results from the positive training effects, as described above. For, while over the last five years, there has been a slight increase in the national cotton price in Côte d’Ivoire it has mostly been stable (see Figure 39). This suggests that the main factor for the increase in income is the increase in cotton yields. The stability of the nationally determined cotton price (as compared to Zambia) is a key factor that enables higher cotton yields to be translated fairly directly into higher income for farmers. It provides cotton farmers with a high degree of planning reliability and expected incomes. This means that the increased income that speaks from both qualitative and quantitative data can be linked to the increase in average yields, which went up by 5% over the last five years (see Figure 38 above). The higher yields, in turn, can be attributed to the trainings as explained above.

\(^{28}\) This estimate is adapted to existing conditions in the cotton areas. Sectoral experts reported that research trials by the CNRS under laboratory conditions showed that the available cotton seeds can yield up to 4t per hectare. The discrepancy between the two estimates is largely explained by factors such as soil quality, climatic conditions and an ideal application of GAP.

\(^{29}\) In this case, the farmer who reported 400 kg yield per hectare can be seen as an outlier, because he stated having overfertilized the plot.
The analysis further shows that the farmers’ income in Côte d’Ivoire is strongly influenced by their input costs. Input costs make up around 40-50% of farmers’ total costs, as sectoral experts confirmed, and are largely made up of expenses for fertilizer, followed by expenses for labour force and mechanisation (e.g. renting a tractor). Farmers as well as representatives from the cotton companies point out that although input costs have slightly diminished in the recent past, they continue to make up a large part of farmers’ expenses and, through reductions, could hence be a key lever for further increasing farmers’ income. For example, consequent use of organic manure as part of the GAP would reduce the costs for fertilisers, according to some interviewees. With regards to the input costs related to the labour force, interview partners reported that they currently faced a shortage and high costs for labour. As indicated above, it was reported that gold panning constitutes a major concern for cotton farmers as an attractive occupation that absorbs the work force of seasonal workers that would otherwise work in the cotton fields. Crop diversification is another challenge for Ivorian farmers in this regard, because it can considerably absorb the work force and time needed for cotton production, as many interview partners reported. This can be the case, in particular, when work-intensive periods in the different crops’ production cycles overlap. As a consequence, farmers face higher costs for additional labour. In response to these different challenges concerning the cost and shortage of the work force, farmers offer each other help in groups (Groupes d’entraide).

Lastly, other factors detracting from farmers’ yields in Côte d’Ivoire and hence their income, are the impacts of climate change, pests and decreasing soil fertility. Especially the impact of climate change is a challenge mentioned by farmers in all surveyed villages. This manifests itself mainly in disruptions or shifts in the usual precipitation periods (rather than in reduced rainfall in general). This poses problems that can affect the entire cotton production cycle when required amounts of precipitation do not materialise in key periods, such as the time after sowing. While these negative impacts of climate change are increasingly palpable for the cotton farmers, they have not reached dramatic levels so far. According to the cotton companies’ management, precipitation levels are still above the minimum threshold of rainfall of 800 mm per year, which is favourable for planting cotton. Besides climate change (in terms of changing rain patterns), both farmers and representatives from the cotton companies report that pests were a persistent problem and that decreasing soil fertility had been posing a growing challenge for the cotton production in recent years. Soil quality and availability are also threatened by the (illegal) activity of gold mining which is spreading in the surveyed region and through which cultivable land is destroyed.
Social impacts
Concerning the social impact of CmiA’s engagement in Côte d’Ivoire, the evaluation examined the impact hypothesis that farmers’ living conditions are expected to improve through the trainings and an increase in farmers’ income. The aspects of child labour and children’s school attendance, (access to) medical care, and food security were of particular interest among CmiA’s social impact. On the one hand, the hypothesis is that trainings lead to higher awareness among farmers such as for health protection. On the other, an increase in farmers’ income is expected to enable them to spend more money on schooling and medicine.

In general, the evaluation shows that the social situation of cotton producers in Côte d’Ivoire has significantly improved in the last five years. Firstly, the prevalence of child labour in Côte d’Ivoire has significantly diminished in the last years according to the qualitative and quantitative data. The majority of farmers’ children regularly attend school and farmers overall have a higher awareness for the importance of education and the implications of child labour. This is a positive development that can be at least partly attributed to the CmiA-funded trainings; interview partners report that prevention of child labour was one of the key topics farmers associated with the CmiA programme. However, as in the case of Zambia, it needs to be noted that context factors such as government education programmes are also likely to have reduced the prevalence of child labour, thus, a direct attribution to CmiA’s engagement is not possible in this context.

Concerning child labour, interview partners in Côte d’Ivoire also report that in many cases, children continue to help their parents with cotton farming on the weekends and during school holidays, i.e. when there is no immediate conflict with school attendance (holidays were reported to overlap partially with some of the most work-intensive periods of the cotton production cycle, such as seeding and harvesting). As the survey data shows in more detail (see Figure 40), farmers state that 76% of boys and 68% of girls between 7 and 14 years “sometimes” help on the fields (e.g. on weekends). In contrast, the number of boys and girls helping their parents on the field “most of the time” and “always (whenever there is work to be done)” is significantly lower. Among those, only a fraction of boys and girls were reported to help on the field most of the time (3% and 4% respectively). However, a considerable share of children is said to be always helping on the field (12% of boys, 10% of girls). In the same vein, the survey reveals that about half of the children have recently helped on the fields, i.e. in the week that the survey took place (53% of boys, 51% of girls), while 7% and 5% respectively have helped on the day of the survey itself. Again, this can be explained by the qualitative data: As the majority of Ivorian farmers were interviewed on weekdays, this observation is generally in line with the farmers’ statement that children helped during weekends when there was no school and field work had to be done.
Case Study: Research on impacts of the CmiA initiative on livelihoods of small-holder farmers in sub-Saharan Africa

Secondly, with regards to **health and medical care**, the situation of farmers in Côte d’Ivoire has seen an improvement. For example, comparing survey data from 2010 and 2020 shows that 8% fewer farmers report that a member of their household needed medical care (e.g. due to accidents) or were sick in the previous year (80% vs. 88%, see Figures 41 and 42). Yet, this cannot only be linked to CmiA’s activities. While the overall improvement of farmers’ medical situation is potentially linked to a variety of contextual factors that were not examined in the evaluation, the evaluation shows that CmiA’s engagement has somewhat contributed to this general trend in one of two examined ways. On the one hand, a general trend that can be observed according to the interview partners is that farmers encounter fewer health problems due to improved handling of chemicals and related package waste. For example, many C/A report that more farmers use protective gear, properly dispose of package waste from chemicals and adequately store chemicals themselves. This is a result that can be directly traced back to the trainings, as farmers strongly associate these aspects with the CmiA intervention. Next to protecting farmers’ health, improved handling of chemicals and their package waste also contributes to protecting the environment.
picture emerges from the survey data (see Figures 41 and 42). The share of farmers in Côte d’Ivoire who indicate that one of their household members had difficulties in getting the needed medical care and medicines decreased a little in comparison with 2010. Around 7% fewer households report that they are never or only sometimes able to pay for the necessary medical care. However, no change can be detected in farmers’ ability to pay for necessary medicines. In fact, fewer Ivorian farmers in 2020 state that their household was always able to pay for necessary medical care (8% less) and for necessary medicines (14% less).

Figure 41: Access to medical care and medicines 2010

<table>
<thead>
<tr>
<th>N</th>
<th>mean</th>
<th>Never</th>
<th>Sometimes</th>
<th>Most of the time</th>
<th>Always</th>
<th>Not needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>252</td>
<td>2.23</td>
<td>23%</td>
<td>25%</td>
<td>23%</td>
<td>44%</td>
<td></td>
</tr>
</tbody>
</table>

Response
- Never
- Sometimes
- Most of the time
- Always
- Not needed

Has any member of this household been sick (not a chronic illness or disease) or needed medical care (because of an accident, for example) in the last 12 months (since October 2019)?

<table>
<thead>
<tr>
<th>N</th>
<th>20%</th>
<th>80%</th>
</tr>
</thead>
</table>

Response
- No
- Yes
Lastly, with regards to social impacts in terms of food security, CmiA’s potential indirect impact through enhancing the farmers’ income is limited.\(^32\) However, there is a potential contribution to the degree that the verification process helps to improve the management of cotton companies. For example, interview partners in Côte d’Ivoire report that cotton companies can play a positive role in assuring farmers’ food security, as can be seen in the case of Partner 1, which offers farmer loans in a hungry season. Overall, periods of food insecurity still exist according to the survey participants, with 72% of farmers indicating that in the last 12 months there was a time during which their household lacked food and hence had to leave out a meal (see Figure 43). However, while 36% of Ivorian farmers report that this period was worse than the year before, an equally large share of farmers (34%) report that the hungry season was not as bad for them as the year before. 29% of farmers indicate it was about the same (see Figure 43). According to the interviewees, the hungry periods are less pronounced though, and longer periods of a month only occur during the heat spells from August to October. With regard to the season 2020/21, farmers specifically voiced concerns about food shortages due to changed rain patterns.

\(^{32}\) This reflects previous findings in other evaluations, which often show that an increase in income rarely leads to improved food security because people tend to spend the additional income on other household items or on education (cf. Syspoms (2021) Evaluation of the Food & Business Global Challenges Programme (GCP) and Applied Research Fund (ARF) – Synthesis report, conducted for NOW-WOTRO).
Assessment

The evaluation overall shows that the efforts of the Cotton made in Africa initiative have a positive impact on the living conditions of cotton farmers in Côte d’Ivoire, mainly in terms of the farmers’ economic situation and to a lesser extent, concerning their social living conditions.

Based on the collected evidence, the evaluation team concludes the following regarding the analysed impact hypotheses of CmiA: (1) Farmers yields tend to increase with more frequent participation in trainings, as the trainings lead to a better application of good agricultural practices. However, the potentials for increasing cotton yields (e.g., by applying organic manure) are not yet fully explored. At the same time, Ivorian farmers face a number of challenges in their cotton production that diminish their yields, such as the increasingly tangible impacts of climate change (in particular through a destabilisation of rain patterns), pests and deceasing soil fertility. Based on the available data, it can be concluded that CmiA’s approach to improve the farmers’ situation is more successful if farmers attend more than just a few trainings per season and if the training system is embedded into a decentralized counselling structure.

(2) The increase in yields linked to the trainings effects translate into a higher income for farmers. As the cotton price in Côte d’Ivoire remains relatively stable, higher yields are directly linked to a higher income. However, there are still untapped potentials for increasing farmers’ yields further. This is notably the case for a more rigorous application of good agricultural practices, through which farmers can further reduce their input costs and hence increase their incomes.

The economic impact hypotheses behind the CmiA initiative can thus largely be confirmed by the analysis in Côte d’Ivoire. The impact chain in this regard is crucially enabled by one key context factor. This is the stability of the nationally fixed cotton price, which also gives farmers a high degree of income and planning security. Thereby, the structure of the Ivorian cotton production system (zoning) further improves income security for the farmers and incentives to stick to cotton farming. The training system in Côte d’Ivoire finally also favours continuous capacity development and thus an increase in productivity through a well-organized decentralized training structure, a high training frequency as well as close assistance and immediate availability of counselling by the C/A.
(3) Concerning the social impacts, it can be noted positively that CmiA’s support to trainings has plausibly contributed to cultural changes in the farmer communities in Côte d’Ivoire. This is mainly the case for the improvements concerning prevention of child labour and children’s school attendance, and to a lesser degree for the farmers’ health situation. These effects are largely achieved by a sensitisation on topics of socio-economic relevance in trainings (although this link is subject to a relatively long impact chain). In this regard, the evaluation data confirms a high awareness among farmers for the importance of education of their children and for the implications of child labour, which are at least partly associated with the trainings. Moreover, the trainings are also associated with farmers’ awareness in terms of protecting their health (and the environment) by handling chemicals and their package waste better and using protective gear more diligently.
5. Conclusions

Based on the analysis of the case studies in Zambia and Côte d’Ivoire, several overarching conclusions can be drawn regarding success factors, obstacles and important context conditions influencing CmiA’s engagement for smallholder cotton farmers.

Overall, it was found that the Cotton made in Africa can contribute to positive economic and social impacts for the cotton farmers: Through the support for farmer trainings and the cotton companies’ management, the initiative fosters the application of Good Agricultural Practices and thus helps to increase the farmers’ productivity. An increased cotton yield has the potential to generate a higher income and thus result in better overall living conditions for the farmers.

At the same time though, the evaluation results also show that CmiA’s verification process and support to trainings does not automatically lead to an increased productivity, higher incomes and consequently a better economic and social situation for the cotton farmers. The findings clearly demonstrate that CmiA does not operate independently from external circumstances; instead, the market structure of the cotton system in the respective partner country was found to be a crucial factor influencing the extent to which CmiA can effectively contribute to the intended impacts. In this regard, the analysis shows that CmiA can plausibly contribute to improvements in the farmers’ living conditions when intervening in a functional production system (such as Côte d’Ivoire). In contrast, when engaging in a cotton production system that does not work well on its own on the world market (such as Zambia), CmiA is not able to achieve a significant positive economic and social impact in the farmers’ lives. In this case, the initiative can reduce the detrimental effects of the unfavourable market conditions for the smallholder cotton farmers.

The evaluation results hence demonstrate that the context conditions, including, for example, the institutional market structure, cotton price, seed quality and climate conditions, can work as a facilitating or inhibiting factor with regards to CmiA’s objectives. A market structure that provides income security for the farmers and incentives to stick to cotton farming is more likely to enable a continuous capacity development and thus lead to increases in productivity. This means that the Cotton made in Africa initiative has a higher potential to contribute to positive changes in countries where the external market conditions allow for profitable cotton farming (as in the case of Côte d’Ivoire), than in countries where cotton production is economically disincentivised (e.g. Zambia).

When there is an overall conducive environment for cotton farming, two main success factors can be identified with regards to the trainings: First, a regular and frequent implementation of farmer trainings according to the CmiA standard is important in order to achieve changes in the farmers’ agricultural practices and thus positively influence their productivity levels. The data shows that a minimum number of two to three trainings per season is needed for a farmer to adapt his or her agricultural habits. Second, continuous support, follow-up and monitoring by trainers or extension officers throughout the entire cotton season ensure that farmers apply the newly acquired techniques and knowledge correctly. This also relates to the management of cotton companies: Clear responsibilities within the cotton companies and the continuous presence of extension officers in the field help to turn knowledge into practice and thus increase the likelihood that productivity will increase, as the case of Côte d’Ivoire demonstrates.

In this context, the verification process was also found to be an important factor for improving the farmers’ living conditions, as the CmiA criteria help the companies to enhance their management abilities and safeguard certain standards, e.g., regarding child labour, gender or work safety. The verification process keeps the cotton companies committed to continuously improve their processes, and thus their cooperation with the smallholder farmers. In this regard,
a close alignment of the verification process with the needs and interests of the cotton companies has proven to be a success factor.

Finally, the evaluation results confirm that the trainings supported by CmiA have a direct positive influence on the social dimensions of gender equality, children’s education as well as environmental protection and health. However, it needs to be noted that the socio-economic development of farmer communities in these dimensions is subject to various factors of influence, so the evaluation results do not allow inference to a direct causal relationship between the trainings and social markers of development.
Recommendations

Overall, the evaluation team concludes that CmiA’s engagement with regards to farmer trainings and the management of cotton companies (Managing Entities) has the potential to influence the living conditions of smallholder farmers in a positive way. However, in order to unlock this potential, the evaluation team has identified several opportunities for improvement. From the evaluation results, the following three fields of action have been derived and were developed into specific recommendations together with the Aid by Trade Foundation in the final workshop.

1 STRATEGIC ORIENTATION

Recommendation 1: CmiA should conduct a strategic reflection process on the selection of partner countries and/or supported commodity sectors.

The evaluation results clearly show that CmiA has a higher potential to create a positive impact in the farmers’ lives when intervening in countries where the external market conditions are favourable to cotton growing. For this reason, the evaluation team recommends CmiA to conduct a strategic reflection process with the objective to decide which partner countries will be supported in the future and how. This is a priority field of action, as all measures to improve farmers’ lives can only result in positive changes if the market forces do not work against CmiA’s engagement. At the moment, three scenarios for a future strategic orientation emerge:

a. CmiA continues to focus on the cotton sector and only supports those partner countries, in which support of cotton farming is likely to achieve significant positive economic and social impacts for the farmers.

b. CmiA continues to support the partner countries in which it is currently active, but shifts its support to other commodity sectors where the cotton sector does not provide sufficient potential to achieve positive economic and social impacts in the farmers’ lives (e.g. Zambia). Given the overarching objective of the Aid by Trade Foundation to promote sustainable development, protect the environment, and improve the living conditions of farmers through trade, other commodities besides cotton may also provide new strategic opportunities to support existing partner countries.

c. CmiA continues to support the partner countries in which it is currently active, while keeping its focus on the cotton sector. In those countries where the context conditions for cotton farming are unfavourable, CmiA reduces its aspirations with regards to the impacts that can realistically be achieved.
2 TRAININGS: FREQUENCY AND CROSS-CUTTING THEMES

Recommendation 2: CmiA should ensure a frequent implementation of trainings and monitor the implementation and attendance in detail, for instance by collecting information from the Managing Entities on the number of trainings conducted by area/location as well as the number of trainings attended by individual farmers.

Based on the findings, it can be concluded that the frequency of the trainings is a main factor for increasing the probability that the cotton farmers will apply their knowledge on good agricultural practices. Therefore, CmiA should set a focus on encouraging and monitoring the regular implementation of farmer trainings across all supported cotton-growing areas, as the frequent attendance of trainings was found to be a prerequisite to positively influence farmers’ productivity levels.

Recommendation 3: CmiA should support the inclusion of topics of socio-economic relevance into the training concepts. This entails for example financial and conceptual support for train-the-trainer events and training materials on environmental protection, health and gender equality.

Furthermore, it was found that cross-cutting themes within the trainings contribute to the socio-economic development in terms of environmental protection, education and health within the farmer communities. In line with its pillars “people”, “planet” and “prosperity”, CmiA should therefore focus on supporting the inclusion of these cross-cutting topics in the trainings.

3 PROFESSIONALISATION AND EXTENSION SERVICES OF COTTON COMPANIES

Recommendation 4: CmiA should encourage the Managing Entities to invest in extension services and ensure a steady professional support of contracted farmers across all cotton-growing areas.

The evaluation results indicate that decentralised structures within the Managing Entities with a strong physical presence of extension officers on the ground are a success factor in ensuring continuous support to the cotton farmers. Hence, CmiA should encourage the Managing Entities to invest in extensions services and ensure a steady support of contracted farmers across all cotton-growing areas. Criteria in this regard are already (partially) included in the revised verification process, but CmiA could further support this by additional criteria and through a continuous dialogue with the Managing Entities on potential challenges in this context.
Annex

I BIBLIOGRAPHY

II. EVALUATION MATRIX

III. DATA COLLECTION INSTRUMENTS ZAMBIA

IV. DATA COLLECTION INSTRUMENTS CÔTE D’IVOIRE
Annex I: Bibliography


Annex II: Evaluation Matrix

<table>
<thead>
<tr>
<th>Activities: To what extent do cotton companies conduct trainings on:</th>
<th>Evaluation Question</th>
<th>Indicator / Descriptor</th>
<th>Data Collection Instruments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservation Techniques to improve soil fertility / health (water management);</td>
<td>1. Number of trainings conducted per year / per cotton company / adjusted by cotton company size (number of farmers) across CmiA</td>
<td>Semi-remote field studies (Zambia and Côte d’Ivoire)</td>
<td>Online and Desk Research</td>
</tr>
<tr>
<td>Integrated Pest Management (IPM);</td>
<td></td>
<td></td>
<td>Programme documents</td>
</tr>
<tr>
<td>proper use and storage of pesticides; post-harvest handling and grading; business skills; CmiA Child Labour Criteria, Gender and HIV?</td>
<td></td>
<td></td>
<td>Sample-based Surveys, NORC Baseline &amp; Endline Data, Cotton companies’ recording data, self-assessment, monitoring data, training data sheets, external monitoring data, audit data, assessment reports and external audits</td>
</tr>
<tr>
<td>Outputs: To what extent are farmers trained in:</td>
<td></td>
<td></td>
<td>Sustainable Data on Zanzibar’s Côte d’Ivoire</td>
</tr>
<tr>
<td>Basic Agricultural Techniques; Conservation Techniques to improve soil fertility / health (water management); Integrated Pest Management (IPM); proper use and storage of pesticides; post-harvest handling and grading; business skills; CmiA Child Labour Criteria, Gender and HIV?</td>
<td>1. Number of farmers attending each training on average / max / min across CmiA</td>
<td></td>
<td>Standardized Farmer Surveys</td>
</tr>
<tr>
<td></td>
<td>2. Number of trainings attended by each farmer on average / max / min</td>
<td></td>
<td>Interviews with cotton company / lead farmers</td>
</tr>
<tr>
<td></td>
<td>3. Assessment of the quality of the trainings (training material, trainers, content, didactical methods)</td>
<td></td>
<td>Interviews with external stakeholders (associations, farmers)</td>
</tr>
<tr>
<td>Outcomes: To what extent do farmers apply knowledge on:</td>
<td>1. Extent of application of acquired techniques, skills and knowledge (see training topics)</td>
<td>(✓)</td>
<td>(✓)</td>
</tr>
<tr>
<td>Basic Agricultural Techniques; Conservation Techniques to improve soil fertility / health (water management); Integrated Pest Management (IPM); proper use and storage of pesticides; post-harvest handling and grading; business skills; CmiA Child Labour Criteria, Gender and HIV?</td>
<td>2. Share of farmers who apply of acquired techniques, skills and knowledge (see training topics)</td>
<td>(✓)</td>
<td>(✓)</td>
</tr>
<tr>
<td>Outputs/Outcomes: Which factors facilitate or hinder the application of knowledge?</td>
<td>1. Qualitative description of factors facilitating the application of techniques/skills/knowledge</td>
<td>(✓)</td>
<td>(✓)</td>
</tr>
<tr>
<td></td>
<td>2. Qualitative description of factors hindering the application of techniques/skills/knowledge</td>
<td>(✓)</td>
<td>(✓)</td>
</tr>
</tbody>
</table>

Annex Case Study: Research on impacts of the CmiA initiative on livelihoods of small-holder farmers in sub-Saharan Africa
## Impact Evaluation

### Economic Impacts

<table>
<thead>
<tr>
<th>Evaluation Aspects</th>
<th>Evaluation Question</th>
<th>Indicator / Descriptor</th>
<th>Data Collection Instruments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Online and Desk Research</td>
</tr>
<tr>
<td></td>
<td>To what extent do farmers have a diversified crop portfolio?</td>
<td>1. Crop diversification among farmers measured by the number of crops (Comparison over time) 2. Qualitative description of factors determining crop diversification among farmers</td>
<td>(✓)</td>
</tr>
<tr>
<td></td>
<td>To what extent do farmers have higher yields?</td>
<td>1. Annual cotton yield per ha among farmers (Comparison over time) (retrospective yield report) a) mean b) median 2. Qualitative description of factors determining cotton yields among farmers</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>To what extent do farmers have lower input costs?</td>
<td>1. Annual (mean, max, min) (Comparison over time) spending for a) seeds b) organic fertilizers (compost, mulching, manures) c) chemical fertilizers (NPK, urea) d) pesticide e) herbicide f) rental of agricultural equipment / other non-labour inputs g) hired labour / labour costs 2. Qualitative description of factors determining input costs</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>To what extent do farmers have higher incomes?</td>
<td>1. Amount of cotton sold in the last season (Comparison over time) a) mean b) median 2. Money received for cotton (Comparison over time) a) mean b) median 3. Poverty probability of farmers according to PPI 4. Qualitative description of factors determining household incomes of the farmers (poverty level)</td>
<td>✓</td>
</tr>
</tbody>
</table>

### Outcomes / Impact: Which factors facilitate or hinder the improvement of the farmers’ economic situation?

1. Qualitative description of factors facilitating the improvement of the farmers’ economic situation 2. Qualitative description of factors hindering the improvement of the farmers’ economic situation 3. Quantitative relationship between the development of the farmers’ economic situation and: a) the participation in trainings b) the application of techniques/knowledge acquired in the trainings c) other factors (e.g. world market prices, climatic conditions, policy framework, COVID-19)

### Social Impacts

<table>
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<tr>
<th>Evaluation Aspects</th>
<th>Evaluation Question</th>
<th>Indicator / Descriptor</th>
<th>Data Collection Instruments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Online and Desk Research</td>
</tr>
<tr>
<td></td>
<td>To what extent are the living conditions of farmers and farmers’ families improved?</td>
<td>(Comparison over time) 1. Proportion of children in the household regularly attending school 2. Duration and severity of hunger season 3. Access to medical care 4. Proportion of children working on the field</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Economic impacts / Social Impact: Which factors facilitate or hinder the improvement of the farmers’ social situation?</td>
<td>1. Qualitative description of factors facilitating the improvement of the farmers’ social situation 2. Qualitative description of factors hindering the improvement of the farmers’ social situation 3. Qualitative relationship between the development of the farmers’ social situation and: a) the participation in trainings b) the application of knowledge &amp; skills c) the economic situation of the farmers d) other factors (e.g. macro-economic factors, political factors, COVID-19)</td>
<td>✓</td>
</tr>
</tbody>
</table>

### Unintended Outcomes / Impacts

<table>
<thead>
<tr>
<th>Evaluation Aspects</th>
<th>Evaluation Question</th>
<th>Indicator / Descriptor</th>
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Introduction

To improve the living conditions of smallholder cotton farmers, the Cotton made in Africa Initiative (CmiA) collaborates with cotton companies to support them in their efforts to provide farmers with know-how on improved and sustainable farming practices. The evaluation conducted by Syspons seeks to (1) identify which results have been achieved so far, and (2) identify which elements of CmiA work well and which ones do not in order to improve the initiative in the future. For this purpose, Syspons and local evaluators are conducting a survey with cotton-growing farmers as well as qualitative interviews with (lead) farmers, cotton companies, extension agents and experts.

➢ Syspons GmbH (Prinzenstraße 84, 10969 Berlin) was commissioned by the Aid by Trade Foundation to carry out the evaluation of the Cotton made in Africa Initiative and to report the relevant results to the Aid by Trade Foundation.
➢ We will document the interview in a protocol of results. We will treat this protocol of results as confidential.
➢ By participating in the interview, you agree to the data protection consent, which you can find on the last page of this guide.

Contact:
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10969 Berlin

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E-Mail: motje.seidler@syspons.com

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Introduction
1. Please briefly explain your role/profession and the tasks involved.
2. How long have you been working for the cotton company?
3. Please explain briefly if and to what extent your tasks are related to the Cotton made in Africa Initiative (CmiA).

The Training Process
The Cotton made in Africa Initiative aims at improving living conditions of smallholder cotton farmers by providing know-how on improved and sustainable farming practices. The initiative certifies the cotton companies, if they comply with certain requirements, and provides funds and materials for trainings.

1. How do you organize farmer trainings at your cotton company since you started participating in CmiA/COMPACI?
   a) Who conducts the trainings? (lead farmers, extension agents etc.)
   b) What is the content of the trainings?
   c) What formats are used to provide the trainings and how are they conducted? (Workshop format, practical demonstration at a farmer’s plot etc.)
   d) How many trainings were provided in the last season?
   e) How many farmers attended each training in the last season? If possible, distinguish between men and women.
   f) How many training contacts has a typical farmer during a season – is he/she only trained once or several times?
   g) How many / what percentage of contracted cotton farmers participate in at least one training per season?
   h) What works well and what could be improved with regards to the different trainings? Please specify for each training type.
   i) What training topics have a positive impact on farmers’ practices (more successful) and what topics do not have an impact on farmers’ practices (less successful)? Why is this the case?

2. If you have worked as an extension agent for this company before CmiA/ CAMPACI (year) on board: How did you organize farmer trainings at your cotton company before joining CmiA / COMPACI? What has changed?

3. From your point of view, which factors influence whether the farmers apply the techniques and skills acquired in a training?
   a) Why do farmers apply some techniques but not all techniques?

4. In your perspective, what is the most important change that the trainings have generated for cotton farmers?

5. How has the COVID-19 pandemic influenced the training process at your cotton company this year?

Management of the Cotton Company
To be part of the Cotton made in Africa Initiative, the participating cotton companies must undergo a verification process managed by the Aid by Trade Foundation. Part of the verification process is a management plan/continuous improvement plan updated each year during verifications.

1. If you have worked for the cotton company even before joining CmiA: Have you perceived any difference (positive or negative) in the management of the cotton company since its verification by the Cotton made in Africa Initiative?
   a) How did the farmer pool of the company develop in the last years? Are there many farmers going in and out of cotton or do most of your farmers continuously grow cotton?
b) Do you see a lot of farmers switching companies?

2. What makes farmers stay or switch cotton companies?

3. How has the COVID-19 pandemic influenced the operations of your cotton company this year?

### Economic Impacts

To evaluate the economic impacts of the Cotton made in Africa Initiative we would like to know your opinion about the following questions:

1. What are the characteristics of a "successful cotton farmer"?

2. What are the main factors influencing the farmers’ incomes?
   a) How can the farmers influence these factors?
   b) How can trainings on different farming aspects influence the farmers’ incomes?
   c) Do you know if the farmers’ income from cotton farming has increased or decreased since the cotton company was verified by CmiA?
   d) Can you estimate what effect the COVID-19 pandemic has on the farmers’ income from cotton this year?

3. What are the main factors that influence if a farmer grows many different crops (compares to farmers that only grow a few crops)?
   a) If you have worked for this cotton company even before joining CmiA: To what extent has farmers’ crop diversity changed since the beginning of CmiA?

4. What is the average yield of a cotton farmer in this country per hectare?
   a) How can the farmers’ yields be increased?

5. Do you see that trainings supported by CmiA can influence the cotton yields of farmers? If yes – How? If not – why not/ what would need to change? What are the main input costs that cotton farmers have?
   a) What are the main factors influencing the farmers’ input costs?
   b) How have these factors changed over the last few years?

Which other external factors have an effect on the farmers’ economic situation?

### Social Impacts

To evaluate the social impacts of the Cotton made in Africa Initiative, we would like to know your opinion about the following questions:

1. How do you assess the development of the cotton farmers’ social situation in this area?
   a) Was there a hungry season in this region since CmiA/COMPACI (year) came on board, in which farmers experienced a hungry period? If yes, how long did this period last?
   b) To which extent do the cotton farmers in this region have access to medical care? How has this changed over the last few years?
   c) To what extent are the children of cotton farmers attending school? How has this changed over the last few years?

2. In general, how are the living conditions of cotton-growing farmers in this area today – in comparison to five years ago?

3. Which other (external) factors have an effect on the farmers’ social situation?

### Final questions

1. Are you aware of any unintended positive or negative consequences of the Cotton made in Africa initiative’s involvement?

2. In your view, are there any other important aspects relevant for this evaluation?

Thank you very much for your time and your support!
Declaration of consent to data protection policy

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Evaluation of the Cotton Made in Africa Initiative

Aid by Trade Foundation

Interview guide for management of cotton companies
Introduction

To improve the living conditions of smallholder cotton farmers, the Cotton made in Africa Initiative (CmiA) collaborates with cotton companies to support them in their efforts to provide farmers with know-how on improved and sustainable farming practices. The evaluation conducted by Syspons seeks to (1) identify which results have been achieved so far, and (2) identify which elements of CmiA work well and which ones do not in order to improve the initiative in the future. For this purpose, Syspons and local evaluators are conducting a survey with cotton-growing farmers as well as qualitative interviews with (lead) farmers, cotton companies, extension agents and experts.

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E-Mail: motje.seidler@syspons.com

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Introduction

1. Please briefly explain your role/profession and the tasks involved.
2. How long have you been working for the cotton company?
3. Please explain briefly if and to what extent your tasks are related to the Cotton made in Africa Initiative (CmiA).

The Training Process
The Cotton made in Africa Initiative aims at improving living conditions of smallholder cotton farmers by providing know-how on improved and sustainable farming practices.

1. How do you organize farmer trainings at your cotton company since you started participating in CmiA/COMPACI?
   a) Who provides the trainings?
   b) What is the content of the trainings?
   c) What formats are used to provide the trainings?
   d) How many trainings were provided in the last season throughout all regions?
   e) How many farmers attended each training in the last season throughout all regions? If possible, distinguish between men and women.
   f) How many training contacts has a typical farmer during a season – is he/she only trained once or several times?
   g) How many / what percentage of contracted cotton farmers participate in at least one training per season?
   h) What works well and what could be improved with regards to the different trainings? Please specify for each training type.

2. How did you organize farmer trainings at your cotton company before joining CmiA / COMPACI? What has changed?
3. From your point of view, which factors influence whether the farmers apply the techniques and skills acquired in a training?
4. In your perspective, what is the most important change that the trainings have generated for cotton farmers?
5. How has the COVID-19 pandemic influenced the training process at your cotton company this year?

Management & The Verification Process
To be part of the Cotton made in Africa Initiative, the participating cotton companies must undergo a verification process managed by the Aid by Trade Foundation. Part of the verification process is a management plan/continuous improvement plan updated each year during verifications.

1. Can you please describe your company’s management plan / continuous improvement plan?
   a. What are your company’s current priorities regarding the verification process of CmiA?
2. To what extent have you implemented the activities described in your continuous improvement plan? Please describe the activities regarding type and scope of the activity.
3. What are challenges in the implementation of your continuous improvement plan?
4. If you have worked for the cotton company even before joining CmiA: Have you perceived any difference (positive or negative) in the management of the cotton company since its verification by the Cotton made in Africa Initiative?
5. What role do the farmer trainings play for the verification process? Could your company pass the certification requirements without the trainings?
6. How did the farmer pool of the company develop in the last years?
   a) Do you see a lot of farmers switching companies or do most farmers remain with the company for several years?
   b) What makes farmers stay or switch cotton companies?
7. How has the COVID-19 pandemic influenced the operations of your cotton company this year?

**Economic Impacts**

To evaluate the economic impacts of the Cotton made in Africa Initiative we would like to know your opinion about the following questions:

1. What are the main factors influencing the farmers’ incomes?
   a) How can the farmers influence these factors?
   b) How can trainings on different farming aspects influence the farmers’ incomes?
   c) Do you know if the farmers’ income from cotton farming has increased or decreased since the cotton company was verified by CmiA?
   d) Can you estimate what effect the COVID-19 pandemic has on the farmers’ income from cotton this year?
2. What are the main factors that influence if a farmer grows many different crops (compared to farmers that only grow a few crops)?
   a. If you have worked for this cotton company even before joining CmiA: To what extent has farmers’ crop diversity changed since the beginning of CmiA?
3. What are your objectives regarding the cotton yield of farmers?
4. What was your overall production (estimation) for cotton this year (all contracted farmers combined) - and what is the actual overall production?
   a. What influence did COVID-19 have on the overall cotton yield?
5. What is the average yield of a cotton farmer in this country per hectare?
   a) Do you see that trainings supported by CmiA can influence the cotton yields of farmers? If yes – How? If not – why not/ what would need to change?
   b) Which other factors could help to increase the farmers’ yields?
6. What are the main input costs that cotton farmers have?
   a) What are the main factors influencing the farmers’ input costs?
   b) How have these factors changed over the last few years?
7. Which other external factors influence the farmers’ economic situation?
Social Impacts
To evaluate the social impacts of the Cotton made in Africa Initiative, we would like to know your opinion about the following questions:

1. How do you assess the development of the cotton farmers' social situation in this area?
   a) Was there a hungry season in the regions where you have operations in the last years, in which farmers experienced a hungry period? If yes, how long did this period last?
   b) To which extent do the cotton farmers in the regions where you have operations have access to medical care? How has this changed over the last few years?
   c) To what extent are the children of cotton farmers attending school? How has this changed over the last few years?

2. Which other (external) factors influence the farmers' social situation?

Final questions

1. Are you aware of any unintended positive or negative consequences of the Cotton made in Africa initiative's involvement?

2. In your view, are there any other important aspects relevant for this evaluation?

Thank you very much for your time and your support!
Declaration of consent to data protection policy

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Evaluation of the Cotton made in Africa Initiative

Focus Group Guide

This focus group guide aims to facilitate the implementation of focus groups during the evaluation mission. This guide should be seen as a frame of reference which can be used in a flexible manner as the context and unfolding interactions require.

What is the purpose of the focus group discussion?

- The short focus group discussion serves multiple purposes:
  - Introduce the evaluation and explain the procedure of the individual interviews
  - Check attendance for the interviews
  - Gather first information about the trainings

Procedure

1. **Introduce the evaluation team** to the farmers and extension agents / representatives of cotton companies

2. **Present the context and objectives** of the evaluation mission to the farmers:
   a. The evaluation is conducted on behalf of Aid by Trade Foundation, a German non-governmental organisation. Aid by Trade Foundation implements the so-called "Cotton made in Africa initiative" since 2012 in various African countries.
   b. The initiative supports trainings for cotton farmers, which are conducted by the extension staff of the cotton companies, so that cotton productivity can grow and have a positive impact on their income and living situation.
   c. The aim of the evaluation is to assess the impact of the initiative and to identify which elements of the implementation work well and which ones do not, in order to improve the initiative in the future.

3. **Clarify if all farmers selected in the sample are present**
   a. If this is not the case, please ask the lead farmer/distributor/extension agent to contact the missing farmers or another person from the replacement list (if this is logistically possible).

4. **Ask the representatives of cotton companies / extension agents to leave the focus group, in order to create an atmosphere in which the farmers can speak freely**

5. **Explain the procedure of the survey**: After the group discussion, the enumerators will hold individual interviews with each selected farmer (1-2 hours)

6. **Inform farmers about their rights:**
   a. The participation in the survey is voluntary
   b. The information provided by farmers will be treated confidentially
   c. Even after giving their consent, they can withdraw their consent at any point in time

7. **Give farmers the opportunity to ask questions** they might have about the evaluation

8. **Thank farmers** for their participation in the evaluation

9. **Brief discussion with the farmers about these questions:**
a. What challenges do you encounter in cotton farming?
b. Whom do you ask if you need advice on your cotton crop?
c. Who of you participated in a cotton training session last season? Who participated in
   trainings in the previous years?
d. What do you like best about the trainings?
e. What do you like least about the trainings?
f. Did you experience any changes due to the trainings? If yes, what are the most im-
   portant changes for you since you started participating in trainings on cotton farming
   practices?

Duration of focus group meetings: ca. 30 minutes

• While the focus groups are an important step in the data collection process, the interviews with
  individual farmers will serve as main data sources. The focus groups should therefore only take
  up a small amount of the overall time frame for the data collection.

Who takes part in the focus group?

• Cotton farmers who were selected as the sample for the evaluation should take part in the focus
  group.
• Please clarify at the beginning of the meeting if all selected farmers are present (step 3).

Which setting is needed for the focus group?

• The focus group should take place in a setting with few disturbances and where all attendees
  can actively participate. For example, this can be a central meeting point in a village where
  other community gatherings typically take place.

Documentation of results

• Please take detailed notes of the information collected during the discussion and use the tablet
  for typing the notes.
• The notes should include the farmers’ answers to these questions:
  o What challenges do you encounter in cotton farming?
  o What do you like best about the trainings?
  o What do you like least about the trainings?
  o What are the most important changes for you since participating in trainings on cotton
    farming practices?

If you have questions about this guide or regarding the implementation of the focus group, please
contact the Syspons Team via telephone or WhatsApp:

Felix Kess: +49 151 2646 04 74
Motje Seidler: +49 151 2646 04 95
Evaluation of the Cotton Made in Africa Initiative

Aid by Trade Foundation

Interview guide
Lead farmers
Introduction

To improve the living conditions of smallholder cotton farmers, the Cotton made in Africa Initiative (CmiA) aims to provide know-how on improved and sustainable farming practices. The evaluation conducted by Syspons seeks to (1) analyse which results have been achieved so far, and (2) identify which elements of the implementation work well and which ones do not in order to improve the initiative in the future. For this purpose, Syspons and local evaluators are conducting a survey with cotton-growing farmers as well as qualitative interviews with (lead) farmers, cotton companies, extension agents and experts.

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E-Mail : motje.seidler@syspons.com

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Introduction
1. Please briefly explain your role / profession and the tasks involved.
   a) Since when did you become a lead farmer?
   b) Why did you become a lead farmer?
   c) Do you want to remain a lead farmer? Why / Why not?
2. Do you know CmiA / the Cotton made in Africa Initiative? If yes, what do you know about it?

Your role as a lead farmer
1. Why has the cotton company chosen you as the lead farmer in this area, according to your perspective?
2. Please describe your relationship with the cotton company.
3. Please describe your relationship with the other farmers.

The Training Process
The Cotton made in Africa Initiative aims at improving living conditions of smallholder cotton farmers by providing know-how on improved and sustainable farming practices. The initiative certifies the cotton companies, if they comply with certain requirements, and provides funds and materials for trainings.

1. How are the farmer trainings at your cotton company organized?
   a) Do you as the lead farmer receive trainings? If yes, how often and on which topics?
   b) Do you as the lead farmer also train other farmers? If yes:
      1- What are the different contents of the trainings?
      2- In which way (formats/settings) do you provide the trainings?
      3- Do you use material for the trainings? If yes, what kind of material and who provides it?
      4- How many trainings did you provide in the last season?
      5- How many farmers attended a typical training session in the last season? If possible, distinguish between men and women.
   c) Who else (from your cotton company) provides the trainings for farmers in this area?
      1- What are the different contents of these trainings provided by the company?
      2- In which way (formats/settings) are the trainings provided?
      3- Is there any material used for the trainings? If yes, what kind of material and who provides it?
      4- How many trainings were given in the last season?
      5- How many farmers attended a typical training session in the last season?
   d) How many training contacts has a typical farmer during a season – is he/she only trained once or several times?
   e) What works well and what could be improved with regards to the different trainings? Please specify for each training type.
   f) What training topics have a positive impact on farmers in this area (more successful) and what topics do not have an impact on farmers (less successful)? Why is this the case?
2. What are best practices of cotton growing, according to your opinion? Do you agree with the “best practices” that are promoted by the cotton companies?

3. From your point of view, which factors influence whether the farmers apply the techniques and skills acquired in a training?
   1. Why do farmers apply some techniques but not all techniques?

4. In your perspective, what is the most important change that the trainings have generated for cotton-growing farmers in this area?

5. Do you always apply the good agricultural practices acquired in the trainings? Are there any circumstances in which you do not apply the techniques? Why not?

6. Do other farmers always apply the good agricultural practices acquired in the trainings? When and why do they not apply the techniques?

7. In your perspective, what is the most important change that you have observed since the beginning of the Cotton made in Africa Initiative / COMPACI?

**The Company’s Management**

1. Have you perceived any difference in the way that your cotton company works in the last years?

2. How do you decide whether you stay with the same cotton company in the next season or whether you switch to another company (or stop growing cotton at all)?

3. How do other farmers decide whether they stay with the same cotton company in the next season or whether they switch to another company (or stop growing cotton at all)?

**Economic Impacts**

1. Please describe your general economic situation.

2. What are the main factors influencing the income from your farming activities?
   a) How can you and other farmers influence these factors?
   b) Are there any agricultural practices that help you to improve your income?
   c) How can trainings provided by the cotton company influence your income?
   d) Are there any aspects in the training you provide to other farmers that can help them to increase their income?"

3. What type of crops are generally grown by farmers in this region? Is it more common to focus on a few crops (which ones?) or grow many different crops at the same time?

4. What was the average cotton yield on your demo plot in the last 5 years?

5. What was the average cotton yield on your other cotton plots in the last 5 years?
   a. Is there anything you could do to increase your cotton yield?

6. What is the average cotton yield of other farmers in this region per hectare?

7. What would you suggest to a farmer who wants to increase his/her cotton yield?

8. What are the main input costs that cotton farmers have?
   a) Have the input costs for cotton farming changed over the last few years? If yes, in what way?

9. Are there possibilities to reduce the input costs without reducing cotton yields? Do you have any idea how your economic situation as a farmer (and the situation of other farmers) could be improved? What makes it difficult to improve the situation?
Social Impacts

1. Did you experience a period in which your family did not have enough food to eat in the last 5 years? If yes, how long did this period last?

2. How many / what percentage of your follower farmers experienced a period in which they did not have enough to eat?

3. To which extent do the cotton farmers in this region have access to medical care? Has this changed over the last few years – and if yes, how?

4. To what extent are the children of cotton farmers attending school? Has this changed over the last few years – and if yes, how?

Thank you very much for your time and your support!
Declaration of consent to data protection policy

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Evaluation of the Cotton Made in Africa Initiative

Aid by Trade Foundation

Farmer Survey
1 Background

Dear enumerator,

all instructions and questions to you are written in italics. Everything that should be read out to the farmer is not written in italics. Please interview the person in the household who is responsible for cotton farming. This may not be the person who is officially registered with the cotton company. Please start by verifying with the interview partner that they are currently growing cotton. If they are not growing cotton, please stop the interview.

General points in filling out the survey:
- If there are questions about money (income or spending), please enter the value in the local currency (Zambian Kwacha)
- If there is a question with a numeric answer (e.g. number of days, money spent) and the answer is “none” or “nothing”, please enter 0.

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</table>

Please enter some background information before starting the interview with the farmer.

Farmer interview starts here. To start, please read the consent form to the farmer and make sure they understand the context and their rights.

| consent          | 06. [background] Declaration of Consent
|                  | Important information on this survey:
|                  | 1. Participating in the survey is completely voluntary.
|                  | 2. We will work with your data anonymously, meaning that we will not identify your replies by your name.
|                  | 3. The cotton company will not know what you said individually. They will only receive the data on the whole village or province.
|                  | 4. If you agree now, it is not permanent. You can decide any time during the interview that you do not want to participate in the survey or that you want us to delete your responses. |
| currentlygrowing | 07. [background] Did you plant cotton this season (2019/2020) ? |

<table>
<thead>
<tr>
<th>Reply Options</th>
<th>1 Yes, I consent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 No</td>
</tr>
</tbody>
</table>
## 2 Household and Education

To better understand your situation, we would like to know something about you and your family/household.

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Survey Question (English)</th>
<th>Reply Options (English)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>household</strong></td>
<td>01. [household] How many members does this household have (i.e., how many people in this household eat together regularly)?</td>
<td>numeric</td>
</tr>
<tr>
<td><strong>boys</strong></td>
<td>02. [household] How many girls of primary school age (7-14) are in this household?</td>
<td>numeric</td>
</tr>
<tr>
<td><strong>girls</strong></td>
<td>03. [household] How many boys of primary school age (7-14) are in this household?</td>
<td>numeric</td>
</tr>
<tr>
<td><strong>hhm65plus</strong></td>
<td>04. [household] How many persons in this household are 65 years old or older?</td>
<td>numeric</td>
</tr>
<tr>
<td><strong>poverty_04z</strong></td>
<td>05. [household] Is your house connected to electricity?</td>
<td>1 Yes 2 No</td>
</tr>
<tr>
<td><strong>poverty_05z</strong></td>
<td>06. [household] Does this household own a Television?</td>
<td>1 Yes 2 No</td>
</tr>
<tr>
<td><strong>poverty_06z</strong></td>
<td>07. [household] Does this household own a Mbaua/Brazier?</td>
<td>1 Yes 2 No</td>
</tr>
<tr>
<td><strong>poverty_07z</strong></td>
<td>08. [household] Does this household own a Gas or Electric stove?</td>
<td>1 Yes 2 No</td>
</tr>
<tr>
<td><strong>poverty_08z</strong></td>
<td>09. [household] Does this household own an Iron?</td>
<td>1 Yes, Electric 3 Yes, Non-electric 2 No</td>
</tr>
<tr>
<td><strong>poverty_09z</strong></td>
<td>10. [household] Does this household own a Lounge Suite/Sofa?</td>
<td>1 Yes 2 No</td>
</tr>
<tr>
<td><strong>poverty_10z</strong></td>
<td>11. [household] Did this household purchase/consume/receive milk (fresh), milk (powdered, excl. baby milk), cheese, or other dairy products during the last 2 weeks?</td>
<td>1 Yes 2 No</td>
</tr>
</tbody>
</table>
| farmerlocalability   | 01. [education] Are you able to read and write in [locallanguage]?
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>farmerlangability</td>
<td>02. [education] Are you able to read and write in English?</td>
</tr>
</tbody>
</table>
| headlocalability    | 03. [education] Is the head of the household able to read and write in [locallanguage]?
| headlangability     | 04. [education] Is the head of the household able to read and write in English? |
| spouseengability    | 05. [education] Is your spouse able to read and write in [locallanguage]?
| spouselocalability  | 06. [education] Is your spouse able to read and write in English? |
| educ                | 07. [education] What is the highest school level you completed?    |
| headeduc            | 08. [education] What is the highest school level the head of the household completed? |
| educspouse          | 09. [education] What is the highest school level completed by your spouse? |

- 1 Yes, with difficulty
- 2 Yes, easily
- 7777 No
- 8888 Don't know
- 9999 Refused
### Variable Name | Survey Question | Reply Options
---|---|---
boyschool | 10. [education] How many BOYS 7-14 years old in this household are regularly attending school (at least four days a week) when the school is in session? | numeric

girlschool | 11. [education] How many GIRLS 7-14 years old in this household are regularly attending school (at least four days a week) when the school is in session? | numeric

boywork | 12. [education] How often do the BOYS (7-14 years) help on the farm? | 0 Never
1 Sometimes (e.g. on weekends, sometimes during weeding / harvesting)
2 Most of the time during weeding / harvesting
3 Always (whenever there is work to be done)
8888 Don't know
9999 Refused

girlwork | 13. [education] How often do the GIRLS (7-14 years) help on the farm? | 0 Never
1 Sometimes (e.g. on weekends, sometimes during weeding / harvesting)
2 Most of the time during weeding / harvesting
3 Always (whenever there is work to be done)
8888 Don't know
9999 Refused

boyworklast | 14. [education] When did the BOYS (7-14 years) help the last time on the field? | 0 They never help
4 More than a month ago
1 Some time in the last month
2 Some time in the last week
3 Today
8888 Don't know
9999 Refused

girlworklast | 15. [education] When did the GIRLS (7-14 years) help the last time on the field? | 0 They never help
4 More than a month ago
1 Some time in the last month
2 Some time in the last week
3 Today
8888 Don't know
9999 Refused

### Variable Name | Survey Question | Reply Options
---|---|---
leanperiod | 01. [hungry season] In the last 12 months was there a period in which the household did not have enough food to eat, meaning that your household had to leave out meals (e.g. eating 2 meals instead of 3 meals)? | 1 Yes
2 No
8888 Don't know
9999 Refused

leanperiodmb | 02. [hungry season] In which month did this period begin (that the household did not have enough food to eat)? | 1-12 January - December
8888 Don't know
9999 Refused
### Training

Now, we would like to find out about the trainings that you have received from the cotton company.

**Enumerator, ask the farmers:** On what topics have you received training? Then, identify the topics that they mention and answer question 05 for them.

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Survey Question</th>
<th>Reply Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>training</td>
<td>01. [training] Has any member of this household been sick (not a chronic illness or disease) or needed medical care (because of an accident, for example) in the last 12 months (since October 2019)?</td>
<td>1 Yes 2 No 8888 Don't know 9999 Refused</td>
</tr>
<tr>
<td>trainingfirst</td>
<td>02. [training] When was the first time you got a training from the cotton company?</td>
<td>season 1 I have never attended a training Don't know 9999 Refused</td>
</tr>
</tbody>
</table>
03. [training] What is the main reason you did not attend any training sessions related to cotton given by the cotton company and/or lead farmer?

- 1 No trainings available in village
- 2 Too busy to attend
- 3 Did not know about trainings in time to attend
- 4 No interest in training because training subject/methods
- 5 I sent someone else to attend the training for me
- 6 No interest
- 7 Other
- 8888 Don't know
- 9999 Refused

<table>
<thead>
<tr>
<th>Topic</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crop rotation</td>
<td>0 False</td>
</tr>
<tr>
<td>Soil fertility techniques</td>
<td>1 True</td>
</tr>
<tr>
<td>Early planting</td>
<td>0 False</td>
</tr>
<tr>
<td>Correct plant population</td>
<td>1 True</td>
</tr>
<tr>
<td>Weed control (Timely weeding, weed control methods, herbicide use)</td>
<td>0 False</td>
</tr>
<tr>
<td>Integrated pest management</td>
<td>1 True</td>
</tr>
<tr>
<td>Proper use and storage of pesticides</td>
<td>0 False</td>
</tr>
<tr>
<td>Harvest techniques</td>
<td>1 True</td>
</tr>
<tr>
<td>Business skills</td>
<td>0 False</td>
</tr>
<tr>
<td>Problems with child labour</td>
<td>0 False</td>
</tr>
<tr>
<td>Gender roles</td>
<td>0 False</td>
</tr>
<tr>
<td>HIV prevention</td>
<td>0 False</td>
</tr>
</tbody>
</table>

05. [training] On which of the following topics have you received training?
### 4 Cotton Farming & Cotton Production

Next, we would like to know how you grow your cotton.

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Survey Question (English)</th>
<th>Reply Options (English)</th>
</tr>
</thead>
<tbody>
<tr>
<td>years</td>
<td>01. [cotton farming] For how long (how many years) have you been growing cotton?</td>
<td>numeric</td>
</tr>
</tbody>
</table>
| method                | 04. [cotton farming] What was the most important method for doing the land preparation (soil tillage) of your cotton plots? (The method you used on all or most of your cotton plots in 2019 / 2020) | 1 Ploughing
2 Ripping
3 Potholing
4 Ridging
6 Zero tillage
7 Other
8888 Don't know
9999 Refused |
| rowsorseeddrilling    | 05. [cotton farming] How did you plant your cotton in the 2019 / 2020 season?            | 1 Station planting
2 Seed drilling
8888 Don't know
9999 Refused |
| rainpdays             | 06. [cotton farming] How many days before or after the first good planting rains did you plant your cotton? | 1 More than 7 days before
2 1-7 days before
3 0-7 days after
4 8-14 days after
5 15 or more days after
8888 Don't know
9999 Refused |
### Rain Pad Advice

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Reply Options</th>
</tr>
</thead>
</table>
| What helped you to decide when to plant your cotton?                           | 1. My own experience  
2. Advice from another farmer / my family  
3. Advice from extension agency / lead farmer  
4. I learned it in training  
5. Other  
8888 Don't know  
9999 Refused                                                                 |

### Any Other Plants

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Reply Options</th>
</tr>
</thead>
</table>
| Did you intercrop your cotton with any other plants?                           | 1. Yes  
2. No  
8888 Don't know  
9999 Refused                                                                 |

### Gapfill

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Reply Options</th>
</tr>
</thead>
</table>
| Did you do any gap filling?                                                      | 1. Yes  
2. No  
8888 Don't know  
9999 Refused                                                                 |

### Gapfill Advice

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Reply Options</th>
</tr>
</thead>
</table>
| What helped you to decide when to do gap filling?                               | 1. My own experience  
2. Advice from another farmer / my family  
3. Advice from extension agency / lead farmer  
4. I learned it in training  
5. Other  
8888 Don't know  
9999 Refused                                                                 |

### All Crops

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Reply Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many hectares do you use for cultivating all crops including cotton in the current crop year (2019-2020)?</td>
<td>numeric</td>
</tr>
</tbody>
</table>

### Cotton Labour

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Reply Options</th>
</tr>
</thead>
</table>
| Did anyone who does not belong to your household help you with the work on your cotton fields this season (including land preparation, planting, tending the plants, weeding, pesticide application and harvesting)? | 1. Yes, I paid workers  
3. Yes, I got unpaid help (e.g. from extended family, community)  
2. No, I did not get additional help  
8888 Don't know  
9999 Refused                                                                 |

### Spend Labour

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Reply Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>How much did you spend on paying workers (labour) in the entire season (2019-2020)?</td>
<td>numeric</td>
</tr>
</tbody>
</table>

### Spend Equipment

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Reply Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>How much did you spend on renting or buying agricultural equipment or any other non-labour inputs for the entire season (2019-2020)?</td>
<td>numeric</td>
</tr>
</tbody>
</table>

### Spend Inputs

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Reply Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>If you paid a lump sum for herbicides, seeds and fertilisers, how much did you spend in the entire season (2019/2020)? If you bought herbicides, seeds and fertilisers in individual packages, please skip this question.</td>
<td>numeric</td>
</tr>
</tbody>
</table>

### Variable Name | Survey Question | Reply Options
--- | --- | ---
justcotton | 01. [cotton estimate] How many hectares (ha) do you use for cultivating just cotton in the most recent crop year (2019-2020)? | numeric
numofseedpacks1 | 02. [cotton estimate] How many seed packets did you receive from the cotton company to grow cotton? Number of ½-hectare packets: | numeric
income_cotton_other | 02. [income] How much money did you receive for the cotton that you sold to anyone outside the cotton company? | numeric
spend_seeds | 03. [cotton estimate] How much did you spend on cotton seeds in the most recent crop year (2019-2020)? | numeric
area | 04. [cotton estimate] Enumerator: How many hectares is the largest plot? Check with cotton company staff or lead farmer. | numeric
kg1farmer | 06. [cotton estimate] What was the cotton production (kg) this season? | numeric
<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Survey Question</th>
<th>Reply Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>crops_BEANS</td>
<td>[crops] Besides cotton, what are your most important crops? Select up to four.</td>
<td>Beans, Cassava, Cow pea, Groundnut,</td>
</tr>
<tr>
<td>crops_CASSAVA</td>
<td></td>
<td>maize, Millet, Pigeon pea, Rice,</td>
</tr>
<tr>
<td>crops_COW_PEA</td>
<td></td>
<td>Sorghum, Soybean, Sunflower, Sweet</td>
</tr>
<tr>
<td>crops_GROUNDNUTS</td>
<td></td>
<td>potato, Tobacco, Sesame</td>
</tr>
<tr>
<td>crops_MAIZE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>crops_MILLET</td>
<td></td>
<td></td>
</tr>
<tr>
<td>crops_PIGEON_PEA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>crops_RICE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>crops_SORGHUM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>crops_SOYBEAN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>crops_SUNFLOWER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>crops_SWEET_POTATO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>crops_TOBACCO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>crops_SESAME</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## 5 Soil Fertility, Weed Control and Pest Control

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Survey Question</th>
<th>Reply Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>rotatecrops15</td>
<td>01. [soil fertility] Thinking of your cotton plots during 2019/2020, which crop did you mainly plant in the previous season 2018/2019?</td>
<td>1 Maize, 2 Groundnuts, 3 Sunflower, 4 Sorghum, 5 Tobacco, 6 Millet, 7 Rice, 8 Soybean, 9 Cow pea, 10 Pigeon pea, 11 Cotton, 12 Beans, 13 Sweet potato, 14 Cassava, 15 Fallow (no crop planted), 16 Other, 8888 Don’t know, 9999 Refused</td>
</tr>
<tr>
<td>rotatecrops14</td>
<td>02. [soil fertility] Thinking of your cotton plots during 2019/2020, which crop did you mainly plant there two seasons ago (2017/2018)?</td>
<td>1 Maize, 2 Groundnuts, 3 Sunflower, 4 Sorghum, 5 Tobacco, 6 Millet, 7 Rice, 8 Soybean, 9 Cow pea, 10 Pigeon pea, 11 Cotton, 12 Beans, 13 Sweet potato, 14 Cassava, 15 Fallow (no crop planted), 16 Other, 8888 Don’t know, 9999 Refused</td>
</tr>
<tr>
<td>rotation</td>
<td>03. [soil fertility] On how much of your cotton plots do you practice crop rotation (changing the plants in a 3-year cycle)?</td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>-------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>cotfertprac_COMPOST</td>
<td>Compost</td>
<td></td>
</tr>
<tr>
<td>cotfertprac_RESIDUE_MANAGEMENT</td>
<td>Residue management / mulching (green manure)</td>
<td></td>
</tr>
<tr>
<td>cotfertprac_ANIMAL_MANURE</td>
<td>Animal manure</td>
<td></td>
</tr>
<tr>
<td>cotfertprac_NPK_FERTILIZER</td>
<td>NPK fertilizer</td>
<td></td>
</tr>
<tr>
<td>cotfertpracUREA</td>
<td>Urea</td>
<td></td>
</tr>
<tr>
<td>cotfertprac_FOLiar_FERTILIZER</td>
<td>Foliar fertilizer</td>
<td></td>
</tr>
<tr>
<td>cotfertprac_APPLICATION_OF_LIME</td>
<td>Application of lime</td>
<td></td>
</tr>
<tr>
<td>cotfertprac_ANY_FORM_OF_MINIMUM_</td>
<td>Any form of minimum tillage</td>
<td></td>
</tr>
<tr>
<td>cotfertprac_CONTOUR_PLOUGHING</td>
<td>Contour ploughing</td>
<td></td>
</tr>
<tr>
<td>cotfertprac_Erosion_WALLS_AROUN</td>
<td>Erosion walls (around or within the plot)</td>
<td></td>
</tr>
<tr>
<td>cotfertprac_FERTILIZER_TREES_ARO</td>
<td>Fertilizer trees around cotton plot</td>
<td></td>
</tr>
<tr>
<td>cotfertprac_OTHER_1</td>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>cotfertprac_OTHER_2</td>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>cotfertprac_NOTHING</td>
<td>Nothing</td>
<td></td>
</tr>
<tr>
<td>cotfertprac_DON_T_KNOW</td>
<td>Don’t know</td>
<td></td>
</tr>
<tr>
<td>cotfertprac_REFUSED1</td>
<td>Refused</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>noncotfertprac_RESIDUE_MANAGEMENT</th>
<th>04. [soil fertility] Other than crop rotation, what other practices do you use on your cotton plots this crop year (2019-2020) to improve soil fertility? Mark all that apply.</th>
</tr>
</thead>
<tbody>
<tr>
<td>noncotfertprac_ANIMAL_MANURE</td>
<td>Animal manure</td>
</tr>
<tr>
<td>noncotfertpracAPPLICATION_OF_LIME</td>
<td>Application of lime</td>
</tr>
<tr>
<td>Variable Name</td>
<td>Survey Question</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>noncotfertprac_ANY_FORM_OF_MINIMUM</td>
<td>Any form of minimum tillage</td>
</tr>
<tr>
<td>noncotfertprac_CONTOUR_PLOUGHING</td>
<td>Contour ploughing</td>
</tr>
<tr>
<td>noncotfertprac_EROSION_WALLS_AR</td>
<td>Erosion walls (around or within the plot)</td>
</tr>
<tr>
<td>noncotfertprac_FERTILIZER_TREES_</td>
<td>Fertilizer trees around plot</td>
</tr>
<tr>
<td>noncotfertprac_GROWING_OF_LEGUMI</td>
<td>Growing of leguminous crops</td>
</tr>
<tr>
<td>noncotfertprac_OTHER_1</td>
<td>Other</td>
</tr>
<tr>
<td>noncotfertprac_OTHER_2</td>
<td>Other</td>
</tr>
<tr>
<td>noncotfertprac_NOTHING</td>
<td>Nothing</td>
</tr>
<tr>
<td>noncotfertprac_REFUSED1</td>
<td>Don't know</td>
</tr>
<tr>
<td>spend_fertiliser</td>
<td>06. [soild fertility] How much did you spend on fertiliser (NPK, urea, foliar) for cotton this cropping season (2019-2020)?</td>
</tr>
<tr>
<td>spend_compost</td>
<td>07. [soild fertility] How much did you spend on compost for cotton this cropping season (2019-2020)?</td>
</tr>
<tr>
<td>weed</td>
<td>01. [weed control] How did you do most of your weed control?</td>
</tr>
<tr>
<td>firstweeding</td>
<td>02. [weed control] How many days after plant emergence did you BEGIN weeding?</td>
</tr>
<tr>
<td>completeweeding</td>
<td>03. [weed control] How many days after plant emergence did you COMPLETE weeding?</td>
</tr>
<tr>
<td>weedingttypeadvice</td>
<td>04. [weed control] What helped you to decide what TYPE of weeding to use?</td>
</tr>
<tr>
<td>weedingtimeadvice</td>
<td>05. [weed control] What helped you to decide WHEN to weed?</td>
</tr>
</tbody>
</table>
Annex Case Study: Research on impacts of the CmiA initiative on livelihoods of small-holder farmers in sub-Saharan Africa

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Survey Question (English)</th>
<th>Reply Options (English)</th>
</tr>
</thead>
<tbody>
<tr>
<td>scouttrain</td>
<td>01. [pesticide] Did you receive training in scouting with pegboards or notebooks in the last five cropping seasons?</td>
<td>1 Yes 2 No 8888 Don't know 9999 Refused</td>
</tr>
<tr>
<td>spraytrain</td>
<td>02. [pesticide] Did you receive training in threshold spraying in the last five cropping seasons?</td>
<td>1 Yes 2 No 8888 Don't know 9999 Refused</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Survey Question (English)</th>
<th>Reply Options (English)</th>
</tr>
</thead>
<tbody>
<tr>
<td>herbapp</td>
<td>06. [weed control] What type of equipment was used for herbicide application?</td>
<td>1 Knapsack sprayer 2 ULV sprayer 3 Both 4 Other 5 I do not apply herbicides 8888 Don't know 9999 Refused</td>
</tr>
<tr>
<td>herbicide_REFUSED</td>
<td></td>
<td>Refused 0 False 1 True</td>
</tr>
<tr>
<td>herbicide_ARMADILLO_SAPPHIRE</td>
<td></td>
<td>Armadillo/Sapphire 0 False 1 True</td>
</tr>
<tr>
<td>herbicide_METOLACHLOR</td>
<td></td>
<td>Metolachlor 0 False 1 True</td>
</tr>
<tr>
<td>herbicide_OTHER_1</td>
<td></td>
<td>Other 0 False 1 True</td>
</tr>
<tr>
<td>herbicide_SPRINGBOK_ROUNDP__GL</td>
<td></td>
<td>Springbok/Roundup - Glyphosate 0 False 1 True</td>
</tr>
<tr>
<td>herbicide_STELLAR_STAR</td>
<td></td>
<td>Stellar star 0 False 1 True</td>
</tr>
<tr>
<td>herbicides_none</td>
<td>07. [weed control] Which herbicides did you use (up to 2 answers)?</td>
<td>Do not apply herbicides 0 False 1 True</td>
</tr>
<tr>
<td>spend_herbicide</td>
<td>08. [weed control] How much did you spend on herbicide (armadillo/sapphire, metolachlor, springbok/roundup-glyphosate) for cotton this season (2019-2020)</td>
<td>numeric</td>
</tr>
</tbody>
</table>

Variable Name | Survey Question (English) | Reply Options (English) |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>scouttrain</td>
<td>01. [pesticide] Did you receive training in scouting with pegboards or notebooks in the last five cropping seasons?</td>
<td>1 Yes 2 No 8888 Don't know 9999 Refused</td>
</tr>
<tr>
<td>spraytrain</td>
<td>02. [pesticide] Did you receive training in threshold spraying in the last five cropping seasons?</td>
<td>1 Yes 2 No 8888 Don't know 9999 Refused</td>
</tr>
<tr>
<td>intervals</td>
<td>03. [pesticide] When do you apply pesticides?</td>
<td>1 Regular intervals 2 Only when thresholds were exceeded 3 Both (some sprays at intervals and some only after thresholds were exceeded) 4 Other 8888 Don't know 9999 Refused</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>scouttimes</td>
<td>04. [pesticide] If you used scouting, how many times did you scout in total this cropping season (2019-2020)?</td>
<td>numeric</td>
</tr>
<tr>
<td>scouttimes</td>
<td>04. [pesticide] If you used scouting, how many times did you scout with a pegboard or a notebook this cropping season (2019-2020)?</td>
<td>numeric</td>
</tr>
<tr>
<td>preharvestscout</td>
<td>05. [pesticide] How many times after scouting did you spray as a result of exceeding the pest threshold?</td>
<td>numeric</td>
</tr>
<tr>
<td>spray</td>
<td>06. [pesticide] How many times did you spray this cropping season (2019-2020) without using scouting?</td>
<td>numeric</td>
</tr>
<tr>
<td>supply_COTTON_COMPANY</td>
<td>07. [pesticide] Where did you get your pesticides used for your cotton for this cropping season (2019-2020)? Mark all that apply.</td>
<td>Cotton Company 0 False 1 True</td>
</tr>
<tr>
<td>supply_INPUT_SUPPLIER</td>
<td>Input supplier 0 False 1 True</td>
<td></td>
</tr>
<tr>
<td>supply_LOCAL_MARKET</td>
<td>Local market 0 False 1 True</td>
<td></td>
</tr>
<tr>
<td>supply_AGRO_SHOP</td>
<td>Agro shop 0 False 1 True</td>
<td></td>
</tr>
<tr>
<td>supply_LEFT_OVER_FROM_LAST_YEAR</td>
<td>Don't know 0 False 1 True</td>
<td></td>
</tr>
<tr>
<td>supply_OTHER_1</td>
<td>Other 0 False 1 True</td>
<td></td>
</tr>
<tr>
<td>supply_DON_T_KNOW</td>
<td>Don't know 0 False 1 True</td>
<td></td>
</tr>
<tr>
<td>supply_REFUSED1</td>
<td>Refused 0 False 1 True</td>
<td></td>
</tr>
<tr>
<td>clothing_NONE1</td>
<td>08. [pesticide] What protective clothing does the person who sprays wear for spraying? Mark all that apply.</td>
<td>None 0 False 1 True</td>
</tr>
<tr>
<td>clothing_LONG_SLEEVE_SHIRT</td>
<td>Long sleeve shirt 0 False 1 True</td>
<td></td>
</tr>
<tr>
<td>clothing_LONG_TROUSERS</td>
<td>Long trousers 0 False 1 True</td>
<td></td>
</tr>
</tbody>
</table>
## Annex Case Study: Research on impacts of the CmiA initiative on livelihoods of small-holder farmers in sub-Saharan Africa

<table>
<thead>
<tr>
<th>clothing CLOSED SHOES BOOTS</th>
<th>Closed shoes/boots</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 False 1 True</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>clothing OVERALLS</th>
<th>Overalls</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 False 1 True</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>clothing GOGGLES</th>
<th>Goggles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 False 1 True</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>clothing MOUTH MASK</th>
<th>Mouth mask</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 False 1 True</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>clothing GLOVES</th>
<th>Gloves</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 False 1 True</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>clothing OTHER 1</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 False 1 True</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>clothing DON T KNOW</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 False 1 True</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>clothing REFUSED1</th>
<th>Refused</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 False 1 True</td>
</tr>
</tbody>
</table>

### Q9. [pesticide] Has any female in this household sprayed the cotton in the last 12 months?
- **09.** 1 Yes 2 No 8888 Don't know 9999 Refused

### Q10. [pesticide] Has any person in this household under the age of 18 years sprayed the cotton in the last 12 months?
- **10.** 1 Yes 2 No 8888 Don't know 9999 Refused

### Q11. [pesticide] Did the person who sprayed experience negative health effects after spraying pesticides or herbicides?
- **11.** 1 Yes 2 No 8888 Don't know 9999 Refused

<table>
<thead>
<tr>
<th>negativehealth HEADACHES OR MEM</th>
<th>Headaches or memory problems</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 False 1 True</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>negativehealth SKIN RASH OR IRR</th>
<th>Skin rash or irritation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 False 1 True</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>negativehealth BREATHING PROBLE</th>
<th>Breathing problems</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 False 1 True</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>negativehealth EYE OR VISION PR</th>
<th>Eye or vision problems</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 False 1 True</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>negativehealth JOINT OR MUSCLE_</th>
<th>Joint or muscle pain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 False 1 True</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>negativehealth NAUSEA OR DIGESI</th>
<th>Nausea or digestive problems</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 False 1 True</td>
</tr>
<tr>
<td>negativehealthe_REPRODUCTIVE_PRO</td>
<td>Reproductive problems</td>
</tr>
<tr>
<td>negativehealthe_DIZZINESS</td>
<td>Dizziness</td>
</tr>
<tr>
<td>negativehealthe_OTHER_1</td>
<td>Other</td>
</tr>
<tr>
<td>negativehealthe_DON_T_KNOW</td>
<td>Don’t know</td>
</tr>
<tr>
<td>negativehealthe_REFUSED1</td>
<td>Refused</td>
</tr>
<tr>
<td>store_IN_MY_HOUSE</td>
<td>13. [pesticide] Where do you store the pesticides and/or herbicides used for your cotton for the cropping season (2019-2020)? Mark all that apply.</td>
</tr>
<tr>
<td>store_IN_A_SHED_WITH_DOOR</td>
<td>In a shed with door</td>
</tr>
<tr>
<td>store_IN_AN_OPEN_SHED</td>
<td>In an open shed</td>
</tr>
<tr>
<td>store_OUTSIDE</td>
<td>Outside</td>
</tr>
<tr>
<td>store_I_DON_T_STORE__SPRAYING_PR</td>
<td>I don’t store spraying products</td>
</tr>
<tr>
<td>store_OTHER_1</td>
<td>Other</td>
</tr>
<tr>
<td>store_DON_T_KNOW</td>
<td>Don’t know</td>
</tr>
<tr>
<td>store_REFUSED1</td>
<td>Refused</td>
</tr>
<tr>
<td>store_SERVICE_PROVIDER_KEPT_CHEM</td>
<td>Service provider kept the chemicals</td>
</tr>
<tr>
<td>bollworm</td>
<td>14. [pesticide] How many times did you apply BOLLWORM/STAINER chemicals?</td>
</tr>
<tr>
<td>aphid</td>
<td>15. [pesticide] How many times did you apply APHID chemicals to your cotton plants during the last cropping (2012-2013) season?</td>
</tr>
<tr>
<td>bwbottle</td>
<td>16. [pesticide] How many bottles of BOLLWORM/STAINER chemicals did you use in total?</td>
</tr>
<tr>
<td>bwbottlem</td>
<td>17. [pesticide] How many ml is there in a bottle of BOLLWORM/STAINER chemical?</td>
</tr>
<tr>
<td>bwsachet</td>
<td>18. [pesticide] How many sachets of BOLLWORM/STAINER chemicals did you use in total?</td>
</tr>
<tr>
<td>bwsachetg</td>
<td>19. [pesticide] How many grams is there in a sachet of BOLLWORM/STAINER chemicals?</td>
</tr>
</tbody>
</table>
6 Wrap-Up

Thank the farmer for doing the interview.

Explain to the farmer that we will treat her/his information carefully.

Press "Finish"-Button.
Annex IV: Data Collection Instruments Cote d’Ivoire

Évaluation de l’initiative « Cotton Made in Africa »

Fondation Aid by Trade

Focus groupe
Bienvenue et introductions
1. Introduction des évaluateurs et présentation de l’évaluation
2. Présentation des participants, par ex. des chefs des villages, des OPA etc. qui sont présents
3. Pour nous donner une idée : depuis combien de temps produisez-vous du coton et travaillez-vous avec la société cotonnière Ivoire Coton / CO.I.C. SA ?

La culture du coton
Voici quelques questions qui pourraient être posées. Toutefois, il ne s'agit que d'une suggestion et elle peut bien sûr être adaptée dans la conversation.
1. Quels sont les défis que vous rencontrez dans la culture du coton ?
2. À qui s’adresser si vous avez besoin de conseils sur votre culture de coton ?

Les formations
Voici quelques questions qui pourraient être posées. Toutefois, il ne s'agit que d'une suggestion et elle peut bien sûr être adaptée dans la conversation.
1. Qui d’entre vous a participé à la session de formation sur le coton la saison dernière ? Qui a participé aux formations les années précédentes ?
2. Qu’est-ce qui vous plaît le plus dans les formations dispensées ?
3. Qu’est-ce qui vous plaît le moins dans les formations ?
4. Avez-vous constaté des changements dus aux formations ? Si oui, quels sont les changements les plus importants pour vous depuis que vous avez participé aux formations sur les pratiques de la culture du coton ?

Remerciements et prochaines étapes
Remerciez les participants et expliquez que les évaluateurs vont demander à plusieurs d’entre eux des entretiens individuels.
Annex Case Study: Research on impacts of the CmiA initiative on livelihoods of small-holder farmers in sub-Saharan Africa
Introduction

Afin d'améliorer les conditions de vie des petits producteur·rice·s de coton, l'initiative Cotton made in Africa (CmiA) collabore avec les sociétés cotonnières pour les soutenir dans leurs efforts visant à fournir aux agriculteur·rice·s un savoir-faire en matière de capacités agricoles améliorées et durables. L'évaluation menée par Syspons vise à (1) identifier les résultats obtenus jusqu'à présent, et (2) identifier les éléments de CmiA qui fonctionnent bien et ceux qui ne fonctionnent pas afin d'améliorer l'initiative à l'avenir. À cette fin, Syspons et les évaluateur·rice·s locaux·ales mènent une enquête auprès des agriculteur·rice·s cultivant le coton ainsi que des entretiens qualitatifs avec les chef·fe·s de l’OPA, les sociétés cotonnières, les conseiller·ière·s agricoles (C/As), et des expert·e·s.

➢ SYSPONS GmbH (Prinzenstraße 84, 10969 Berlin, Allemagne) a été chargé par la Fondation Aid by Trade d’évaluer l’initiative « Cotton made in Africa » et de communiquer les résultats pertinents à la Fondation Aid by Trade.
➢ Nous documenterons l’entretien dans un protocole de résultats. Nous traiterons ce protocole de résultats comme confidentiel.
➢ En participant à l’entretien, vous acceptez le consentement à la protection des données que vous pouvez trouver à la dernière page de ce guide.

Contact :
Syspons GmbH
Prinzenstraße 84
10969 Berlin, Allemagne

Motje Seidler
Consultante senior
Téléphone : + 49 151/2646 0495
E-Mail : motje.seidler@syspons.com

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Introduction

1. Veuillez expliquer brièvement votre rôle/profession et les tâches que cela implique.
   a) Depuis quand êtes-vous chef·fe de l’OPA ?
   b) Pourquoi êtes-vous devenu chef·fe de l’OPA ?
   c) Voulez-vous rester chef·fe de l’OPA ? Pourquoi / pourquoi pas ?

2. Connaissez-vous CmiA / l’initiative « Cotton made in Africa » ? Si oui, que savez-vous sur l’initiative ? Motivation des agriculteur·rice·s à rester dans la société cotonnière (seulement Z) et dans l’activité cotonnière en tant que telle (CIV, Z) et la relation avec a) une meilleure gestion des sociétés cotonnières b) les projets communautaires soutenus par CmiA

Votre rôle en tant que chef de l’OPA

Motivation des agriculteur·rice·s à rester dans la société cotonnière (seulement Z) et dans l’activité cotonnière en tant que telle (CIV, Z) et la relation avec a) une meilleure gestion des sociétés cotonnières b) les projets communautaires soutenus par CmiA

1. Quelles sont vos tâches en tant que chef·fe de l’OPA ?
2. Pourquoi la société cotonnière vous a-t-elle choisi comme chef·fe de l’OPA dans cette région, selon vous ?
3. Veuillez décrire votre relation avec la société cotonnière.
4. Veuillez décrire votre relation avec les autres agriculteur·rice·s Description qualitative des facteurs favorisant l’application des techniques/compétences/connaissances ; Description qualitative des facteurs défavorisant l’application des techniques/compétences/connaissances

Note pour l’enquêteur·rice : L’objectif est de comprendre comment ils·elles perçoivent leur rôle dans le système de service de vulgarisation de la société cotonnière (sont-ils·elles davantage des représentant·e·s de la société cotonnière ou des agriculteur·rice·s ?)

Le processus de formation

Afin d’améliorer les conditions de vie des petits producteurs de coton, l’Initiative Cotton made in Africa (CmiA) vise à leur fournir un savoir-faire en matière de capacités agricoles améliorées et durables. L’initiative certifie les sociétés cotonnières, si elles respectent certaines exigences, et fournit des fonds et du matériel pour les formations.

1. Comment les formations, sont-elles organisées par votre société cotonnière ? Description qualitative des formations en ce qui concerne les techniques didactiques, la combinaison des sujets, etc.
   a) En tant que chef·fe de l’OPA, recevez-vous des formations ? Si oui, à quelle fréquence et sur quels sujets ? Description qualitative des formations en ce qui concerne les techniques didactiques, la combinaison des sujets, etc.
   b) En tant que chef·fe de l’OPA, formez-vous également d’autres agriculteur·rice·s ? Si oui : Description qualitative des formations en ce qui concerne les techniques didactiques, la combinaison des sujets, etc.

1- Quels sont les différents contenus des formations ?
2- De quelle manière (formats/contextes) donnez-vous les formations ?
3- Utilisez-vous du matériel pour les formations ? Si oui, quel type de matériel et qui le fournit ?
4- Combien de formations avez-vous données au cours de la dernière campagne agricole ? Nombre de formations données
Annex Case Study: Research on impacts of the CmiA initiative on livelihoods of small-holder farmers in sub-Saharan Africa

5- Combien d’agriculteur·rice·s ont participé à une session de formation typique au cours de la dernière campagne agricole ? Nombre d’agriculteur·rice·s ayant participé·e·s à chaque formation

c) Qui d’autre (de votre société cotonnière) donne les formations aux agriculteur·rice·s dans cette région ? Description qualitative des formations en ce qui concerne les techniques didactiques, la combinaison des sujets, etc.

1- Quels sont les différents contenus des formations ?

2- De quelle manière (formats/contextes) donnez-vous les formations ?

3- Utilisez-vous du matériel pour les formations ? Si oui, quel type de matériel et qui le fournit ?

4- Combien de formations avez-vous données au cours de la dernière campagne agricole ? Nombre de formations données

5- Combien d’agriculteur·rice·s ont participé à une session de formation typique au cours de la dernière campagne agricole ? Nombre d’agriculteur·rice·s ayant participé·e·s à chaque formation

d) Combien de contacts de formation un·e agriculteur·rice typique a-t-il-elle pendant une campagne agricole - est-il·elle formé·e seulement une ou plusieurs fois ? Nombre de formations suivies par chaque agriculteur·rice

e) Qu’est-ce qui fonctionne bien et qu’est-ce qui pourrait être amélioré en ce qui concerne les différentes formations ? Veuillez préciser pour chaque type de formation. Évaluation de la qualité des formations (matériel de formation, formateurs, contenu, méthodes didactiques)

f) Quels sont les thèmes de formation qui ont un impact positif sur les pratiques des agriculteur·rice·s (plus fructueux) et quels sont les thèmes qui n’ont pas d’impact sur les pratiques des agriculteur·rice·s (moins fructueux) ? Pourquoi est-ce le cas ? Degré d’application des techniques, compétences et connaissances acquises (voir thèmes de formation) ; Part des agriculteur·rice·s qui appliquent les techniques, compétences et connaissances acquises (voir thèmes de formation)

Note pour l’enquêteur·rice : Découvrez comment ils·elles définissent la formation - uniquement comme des « séances formelles » ou aussi comme conseils informels ? Quels sont les thèmes abordés, à qui s’adresse la formation (un groupe permanent d’agriculteur·rice·s ou différent·e·s agriculteur·rice·s, en groupe ou individuellement ) ?

2. Quelles sont les meilleures pratiques de la culture du coton, selon vous ? Êtes-vous d’accord avec les « meilleures pratiques » qui sont promues par les sociétés cotonnières ? Description qualitative des formations en ce qui concerne les techniques didactiques, la combinaison des sujets, etc.

3. De votre point de vue, quels sont les facteurs qui influencent la mise en pratique par les agriculteurs·rices des techniques et compétences acquises lors d’une formation ou pas ? Description qualitative des facteurs favorisant l’application des techniques/compétences/connaissances ; Description qualitative des facteurs défavorisant l’application des techniques/compétences/connaissances

a) Pourquoi les agriculteur·rice·s appliquent-ils·elles certaines techniques mais pas toutes ?

4. Selon vous, quel est le changement le plus important que les formations ont généré pour les agriculteur·rice·s cultivant le coton ? Question ouverte concernant les impacts sociaux et économiques des formations

5. Appliquez-vous toujours les bonnes pratiques agricoles acquises lors des formations ? Y a-t-il des circonstances dans lesquelles vous n’appliquez pas les techniques ? Pourquoi pas ? Description qualitative des facteurs favorisant l’application des techniques/compétences/connaissances ; Description qualitative des facteurs défavorisant l’application des techniques/compétences/connaissances
6. Les autres agriculteur·rice·s appliquent-ils·elles toujours les bonnes pratiques agricoles acquises lors des formations ? Quand et pourquoi n’appliquent-ils·elles pas les techniques ? Description qualitative des facteurs favorisant l’application des techniques/compétences/connaissances ; Description qualitative des facteurs défavorisant l’application des techniques/compétences/connaissances

1. Selon vous, quel est le changement le plus important que vous avez observé depuis le début de l’initiative « Cotton made in Africa » / COMPACI ? Question ouverte concernant les impacts sociaux et économiques de l’initiative « Cotton made in Africa » / COMPACI

Gestion de la société

1. Avez-vous perçu une différence dans le fonctionnement de votre société cotonnière au cours des dernières années ? Évaluation externe de l’évolution de la gestion de la société cotonnière (par les agriculteur·rice·s et acteur·rice·s externes)

2. Quels sont les facteurs qui déterminent votre décision de cultiver ou non du coton pour une campagne donnée ? Motivation des agriculteur·rice·s à rester avec la société cotonnière (seulement Z) et dans l’activité cotonnière en tant que telle (CIV, Z) et la relation avec a) une meilleure gestion des sociétés cotonnières b) les projets communautaires soutenus par CmiA

3. Quels facteurs déterminent la décision des autres agriculteur·rice·s de cultiver ou non le coton une campagne donnée ? Motivation des agriculteur·rice·s à rester avec la société cotonnière (seulement Z) et dans l’activité cotonnière en tant que telle (CIV, Z) et la relation avec a) une meilleure gestion des sociétés cotonnières b) les projets communautaires soutenus par CmiA

Les impacts économiques

1. Veuillez décrire votre situation économique globale.

2. Quels sont les principaux facteurs qui influencent les revenus de vos activités agricoles ? Description qualitative des facteurs déterminant les revenus des ménages d’agriculteur·rice·s
   a) Comment vous et les autres agriculteur·rice·s pouvez-vous influencer ces facteurs ?
   b) Existe-t-il des pratiques agricoles qui vous aident à augmenter vos revenus ?
   c) Comment les formations données par les sociétés cotonnières peuvent-elles influencer votre revenu ?
   d) Y a-t-il des aspects de la formation que vous donnez aux autres agriculteur·rice·s qui peuvent les aider à augmenter leurs revenus ?

3. Quel type de cultures sont généralement pratiquées par les agriculteur·rice·s de cette région ? Est-il plus courant de se concentrer sur quelques cultures (lesquelles ?) ou de cultiver plusieurs cultures différentes en même temps ? Description qualitative des facteurs déterminant la diversification des cultures chez les agriculteur·rice·s

4. Quel a été le rendement moyen du coton sur votre parcelle de démonstration au cours des 5 dernières années ? Rendement annuel du coton par ha (rapport rétrospectif sur le rendement)

5. Quel a été le rendement moyen du coton sur vos autres parcelles au cours des 5 dernières années ? Rendement annuel du coton par ha (rapport rétrospectif sur le rendement)
   a. Y a-t-il quelque chose que vous pourriez faire pour augmenter votre rendement en coton ? Description qualitative des facteurs déterminant le rendement du coton chez les agriculteur·rice·s

6. Quel est le rendement moyen d’un-e agriculteur·rice cultivant le coton dans cette région par hectare ? Rendement annuel du coton par ha (rapport rétrospectif sur le rendement) a) moyenne b) médiane

7. Que proposeriez-vous à un-e agriculteur·rice qui souhaite augmenter son rendement de coton ? Description qualitative des facteurs déterminant le rendement du coton chez les agriculteur·rice·s

8. Quels sont les principaux coûts des intrants pour les agriculteur·rice·s cultivant le coton ? Description qualitative des facteurs déterminant le coût des intrants
a) Les coûts des intrants pour la culture du coton ont-ils changé au cours des dernières années ? Si oui, de quelle manière ?

9. Existe-t-il des possibilités de réduire les coûts des intrants sans réduire les rendements du coton ? Avez-vous une idée de la manière dont votre situation économique en tant qu'agriculteur·rice (et celle des autres agriculteur·rice·s) pourrait être améliorée ? Qu'est-ce qui rend difficile l'amélioration de la situation ? Description qualitative des facteurs déterminant les revenus de ménage des agriculteur·rice·s

Les impacts sociaux

1. Avez-vous connu une période au cours des 5 dernières années, pendant laquelle votre famille n'avait pas assez à manger ? Si oui, combien de temps cette période a-t-elle duré ? Durée et gravité de la saison de la faim

2. Combien d'agriculteur·rice·s de votre OPA ont connu une période pendant laquelle ils-elles n'avaient pas assez à manger ? Durée et gravité de la saison de la faim

3. Dans quelle mesure les agriculteur·rice·s de cette région cultivant le coton ont-ils-elles accès aux soins médicaux ? Comment cela a-t-il évolué ces dernières années ? Accès aux soins médicaux

4. Est-ce que la majorité des enfants des ménages cultivant le coton ont-ils été scolarisés ? Comment cela a-t-il évolué ces dernières années ? Proportion d'enfants dans le ménage fréquentant régulièrement l’école ; Proportion d'enfants travaillant dans les champs

Merci beaucoup pour votre temps et votre soutien !
Déclaration de consentement à la politique de protection des données

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Le traitement est exclusivement destiné à recueillir des avis, des expériences et des opinions en rapport avec l’objet de l’enquête.

La participation à l’entretien est volontaire. Si vous souhaitez participer, la déclaration de votre consentement est requise pour le traitement des données, car le traitement des données susmentionnées est nécessaire pour l’exécution de l’enquête et nous ne sommes pas autorisés à traiter ces données à cette fin sans votre consentement conformément à la loi applicable sur la protection des données.

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Évaluation de l’initiative « Cotton Made in Africa »
Fondation Aid by Trade
Guide d’entretien
Direction des sociétés cotonnières
Mars 2020
Introduction

Afin d’améliorer les conditions de vie des petits producteur·rice·s de coton, l’initiative Cotton made in Africa (CmiA) collabore avec les sociétés cotonnières pour les soutenir dans leurs efforts visant à fournir aux agriculteur·rice·s un savoir-faire en matière de capacités agricoles améliorées et durables. L’évaluation menée par Syspons vise à (1) identifier les résultats obtenus jusqu’à présent, et (2) identifier les éléments de CmiA qui fonctionnent bien et ceux qui ne fonctionnent pas afin d’améliorer l’initiative à l’avenir. À cette fin, Syspons et les évaluateur·rice·s locaux-ales mènent une enquête auprès des agriculteur·rice·s cultivant le coton ainsi que des entretiens qualitatifs avec les chef·fe·s de l’OPA, les sociétés cotonnières, les conseiller·ière·s agricoles (C/As), et des expert·e·s.

➢ SYSPONS GmbH (Prinzenstraße 84, 10969 Berlin, Allemagne) a été chargé par la Fondation Aid by Trade d’évaluer l’initiative « Cotton made in Africa » et de communiquer les résultats pertinents à la Fondation Aid by Trade.
➢ Nous documenterons l’entretien dans un protocole de résultats. Nous traiterons ce protocole de résultats comme confidentiel.
➢ En participant à l’entretien, vous acceptez le consentement à la protection des données que vous pouvez trouver à la dernière page de ce guide.
Introduction

1. Veuillez expliquer brièvement votre rôle/profession et les tâches que cela implique.
2. Depuis combien de temps travaillez-vous pour la société cotonnière ?
3. Veuillez expliquer brièvement si et dans quelle mesure vos tâches sont liées à l’Initiative Cotton made in Africa (CmiA).

Le processus de formation

Afin d’améliorer les conditions de vie des petits producteurs de coton, l’Initiative Cotton made in Africa (CmiA) vise à leur fournir un savoir-faire en matière de capacités agricoles améliorées et durables. L’initiative certifie les sociétés cotonnières, si elles respectent certaines exigences, et fournit des fonds et du matériel pour les formations.

1. Comment organisez-vous les formations des agriculteur·rice·s dans votre société cotonnière depuis que vous avez commencé à participer à CmiA/COMPACI ? Description qualitative des formations en ce qui concerne les techniques didactiques, la combinaison des sujets, etc.

a) Qui donne les formations ?

b) Quel est le contenu des formations ?

c) Quels sont les formats utilisés pour donner les formations ?

d) Combien de formations ont été données au cours de la dernière campagne agricole ? Nombre de formations données

e) Combien d’agriculteur·rice·s ont participé à chaque formation au cours de la dernière campagne agricole ? Nombre d’agriculteur·rice·s participant à chaque formation

f) Combien de contacts de formation un·e agriculteur·rice typique a-t-il-elle pendant une campagne agricole - est-il-elle formé·e seulement une ou plusieurs fois ? Nombre de formations suivies par chaque agriculteur·rice

g) Combien / quel pourcentage d’agriculteur·rice·s cultivant le coton sous contrat participent à au moins une formation par campagne agricole ? Nombre de formations données par an / par société cotonnière / ajusté en fonction de la taille de la société cotonnière (nombre d’agriculteur·rice·s) dans l’ensemble du CmiA

h) Qu’est-ce qui fonctionne bien et qu’est-ce qui pourrait être amélioré en ce qui concerne les différentes formations ? Veuillez préciser pour chaque type de formation. Évaluation de la qualité des formations (matériel de formation, formateurs, contenu, méthodes didactiques)

2. Comment avez-vous organisé des formations pour les agriculteur·rice·s dans votre société cotonnière avant de rejoindre CmiA / COMPACI ? Qu’est-ce qui a changé ? Évaluation de la qualité des formations (matériel de formation, formateur·rice·s, contenu, méthodes didactiques)

3. De votre point de vue, quels sont les facteurs qui influencent la mise en pratique par les agriculteur·rice·s des techniques et compétences acquises lors d’une formation?

1. Pourquoi les agriculteur·rice·s appliquent-ils·elles certaines techniques mais pas toutes ? Description qualitative des facteurs favorisant l’application des techniques/compétences/connaissances ; Description qualitative des facteurs défavorisant l’application des techniques/compétences/connaissances

4. Selon vous, quel est le changement le plus important que les formations ont généré pour les agriculteur·rice·s cultivant le coton ? Question ouverte concernant les impacts sociaux et économiques des formations

5. Comment la pandémie COVID-19 a-t-elle influencé le processus de formation dans votre société cotonnière l’année dernière ? Description qualitative des facteurs favorisant l’application des techniques/compétences/connaissances ; Description qualitative des facteurs défavorisant l’application des techniques/compétences/connaissances
Gestion de la société cotonnière

Pour faire partie de l'initiative Cotton made in Africa, les sociétés cotonnières participantes doivent se soumettre à un processus de certification géré par la fondation Aid by Trade. Une partie du processus de certification est un plan de gestion/plan d’amélioration continue mis à jour chaque année lors des certifications.

1. Si vous avez travaillé pour la société cotonnière avant qu'elle ait rejoint CmiA : Avez-vous perçu une différence (positive ou négative) dans la gestion de la société cotonnière depuis sa certification par l’initiative Cotton made in Africa ? Auto-évaluation de l’évolution de la gestion de la société cotonnière (par le personnel de la société cotonnière)

2. Comment le pool d’agriculteur·rice·s de la société s’est-il développé ces dernières années ?
   Description qualitative de la taille et de la continuité du pool d’agriculteur·rice·s et de sa relation avec a) l’amélioration de la gestion des sociétés cotonnières b) les projets communautaires soutenus par CmiA
   a) Existe-t-il des agriculteur·rice·s qui ont arrêté de cultiver le coton ou est-ce que la plupart de vos agriculteur·rice·s continuent de cultiver du coton ? Motivation des agriculteur·rice·s à rester dans la société cotonnière (seulement Z) et dans le secteur du coton en tant que tel (CIV, Z) et sa relation avec a) une meilleure gestion des sociétés cotonnières b) les projets communautaires soutenus par CmiA


Les impacts économiques

Pour évaluer les impacts économiques de l'initiative Cotton made in Africa, nous aimerions connaître votre avis sur les questions suivantes :

1. Quelles sont les caractéristiques d’un-e « cultivateur·rice de coton prospère » ? Description qualitative des facteurs promouvant l’amélioration de la situation économique des agriculteur·rice·s ; Description qualitative des facteurs empêchant l’amélioration de la situation économique des agriculteur·rice·s

2. Quels sont les principaux facteurs qui influencent les revenus des agriculteur·rice·s ? Description qualitative des facteurs déterminant les revenus des ménages d’agriculteur·rice·s
   a) Comment les agriculteur·rice·s peuvent-ils-elles influencer ces facteurs ?
   b) Comment les formations sur les différents aspects de l'agriculture peuvent-elles influencer les revenus des agriculteur·rice·s ?
   c) Savez-vous si les revenus des agriculteur·rice·s provenant de la culture du coton ont augmenté ou diminué depuis que la société cotonnière a été certifiée par CmiA ?
   d) Pouvez-vous estimer l’effet de la pandémie COVID-19 sur les revenus des cultivateur·rice·s de coton cette campagne ?

3. Quels sont les principaux facteurs qui influencent si un-e agriculteur·rice cultive plusieurs cultures différentes (par rapport aux agriculteur·rice·s qui ne cultivent que quelques cultures) ? Description qualitative des facteurs déterminant la diversification des cultures chez les agriculteur·rice·s
   a. Si vous avez travaillé pour cette société cotonnière avant qu'elle ait rejoint CmiA : Dans quelle mesure la diversité des cultures des agriculteur·rice·s a-t-elle changé depuis le début de CmiA ?

4. Quel est le rendement moyen d’un-e agriculteur·rice cultivant le coton dans ce pays par hectare ? Rendement annuel du coton par ha (rapport rétrospectif sur le rendement) ; Description qualitative des facteurs déterminant le rendement du coton chez les agriculteur·rice·s
   a) Comment les rendements peuvent-ils être augmentés ?

5. Pensez-vous que les formations soutenues par CmiA peuvent influencer le rendement du coton des agriculteur·rice·s ? Si oui - Comment ? Si non -Pourquoi pas/ que faudrait-il changer ?
Quels sont les principaux coûts des intrants pour les agriculteur·rice·s cultivant le coton ?

*Description qualitative des facteurs déterminant le coût des intrants*

a) Quels sont les principaux facteurs qui influencent le coût des intrants pour les agriculteur·rice·s ?

b) Comment ces facteurs ont-ils évolué au cours des dernières années ?

Quels autres facteurs externes ont un effet sur la situation économique des agriculteur·rice·s ?

*Description qualitative des facteurs déterminant les revenus de ménage des agriculteur·rice·s*

**Les impacts sociaux**

Pour évaluer les impacts sociaux de l’initiative Cotton made in Africa, nous aimerions connaître votre avis sur les questions suivantes :

1. Comment évaluez-vous l’évolution de la situation sociale des cultivateur·rice·s de coton ?
   a) Y a-t-il eu ces dernières années dans cette région, une période, au cours de laquelle les agriculteur·rice·s ont connu la famine ? Si oui, combien de temps cette période a-t-elle duré ? *Durée et gravité de la saison de la faim*
   b) Dans quelle mesure les agriculteur·rice·s de cette région cultivant le coton ont-ils·elles accès aux soins médicaux ? Comment cela a-t-il évolué ces dernières années ? *Accès aux soins médicaux*
   c) Est-ce que la majorité des enfants des ménages des agriculteur·rice·s cultivant le coton ont-ils·elles été scolarisés ? Comment cela a-t-il évolué ces dernières années ? *Proportion d’enfants travaillant dans les champs* *Proportion d’enfants dans le ménage fréquentant régulièrement l’école ; Proportion d’enfants travaillant dans les champs*

2. D’une manière générale, quelles sont les conditions de vie des cultivateur·rice·s de coton dans cette région aujourd’hui - par rapport à il y a cinq ans ? *Question d’évaluation globale : Dans quelle mesure les conditions de vie des agriculteur·rice·s et de leurs familles sont-elles améliorées ?*

3. Quels autres facteurs (externes) ont un effet sur la situation sociale des agriculteur·rice·s ?
   *Description qualitative des facteurs promouvant l’amélioration de la situation sociale des agriculteur·rice·s ; Description qualitative des facteurs empêchant l’amélioration de la situation sociale des agriculteur·rice·s*

**Questions finales**

1. Avez-vous connaissance de conséquences positives, négatives non intentionnelles de l’implication de l’initiative Cotton made in Africa ? *Description qualitative des conséquences positives non intentionnelles de l’implication de CmiA ; Description qualitative des conséquences négatives non intentionnelles de l’implication de CmiA.*

2. À votre avis, y a-t-il d'autres aspects importants à prendre en compte dans cette évaluation ?

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Déclaration de consentement à la politique de protection des données

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Évaluation de l’initiative « Cotton Made in Africa »

Fondation Aid by Trade

Guide d’entretien
Conseiller-ière-s agricoles (C/As) des sociétés cotonnières
Mars 2020
Introduction

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Introduction
1. Veuillez expliquer brièvement votre rôle/profession et les tâches que cela implique.
2. Depuis combien de temps travaillez-vous pour la société cotonnière ?
3. Veuillez expliquer brièvement dans quelle mesure vos tâches sont liées à l’initiative Cotton made in Africa (CmiA).

Le processus de formation
Afin d’améliorer les conditions de vie des petits producteurs de coton, l’Initiative Cotton made in Africa (CmiA) vise à leur fournir un savoir-faire en matière de bonne pratiques agricoles. L’initiative certifie les sociétés cotonnières, si elles respectent certaines exigences, et fournit des fonds et du matériel pour les formations.

1. Comment organisez-vous les formations des agriculteur·rice·s dans votre société cotonnière depuis que vous avez commencé à participer à CmiA/COMPACI ?
   a) Qui donne les formations ? Indiquer le profil du ou des formateur·rice·s (Agronome, entomologiste, etc.)
   b) Quel est le contenu des formations ? Indiquer les thèmes abordés
   c) Quels sont les formats utilisés pour donner les formations ? Indiquer le type de supports de formation (présentation power point, vidéo, manuels, etc.)
   d) Combien de formations ont été données au cours de la dernière campagne agricole ? Nombre de formations données
   e) Combien d’agriculteur·rice·s ont participé à chaque formation au cours de la dernière campagne agricole ? Nombre d’agriculteur·rice·s participant à chaque formation
   f) Combien de formations un·e agriculteur·rice a-t-il-elle suivi·e pendant une campagne agricole ? Nombre de formations suivies par chaque agriculteur·rice
   g) Combien / quel pourcentage d’agriculteur·rice·s cultivant le coton sous contrat participent à au moins une formation par campagne agricole ? Nombre / pourcentage d’agriculteur·rice·s au sein de la société cotonnière ayant participé à au moins une formation
   i) Quels sont les thèmes de formation qui ont un impact positif sur les pratiques des agriculteur·rice·s (plus fructueux) et quels sont les thèmes qui n’ont pas d’impact sur les pratiques des agriculteur·rice·s (moins fructueux) ? Pourquoi est-ce le cas ? Degré d’application des techniques, compétences et connaissances acquises (voir thèmes de formation) ; Part des agriculteur·rice·s qui appliquent les techniques, compétences et connaissances acquises (voir thèmes de formation)

2. Si vous avez travaillé longtemps comme C/A pour cette entreprise : Comment avez-vous organisé des formations pour les agriculteur·rice·s dans votre société cotonnière avant de rejoindre CmiA / COMPACI ? Qu’est-ce qui a changé ? Evaluation de la qualité des formations (matériel de formation, formateur·rice·s, contenu, méthodes didactiques)

3. Quels sont les facteurs qui influencent la mise en pratique ou non des techniques et compétences acquises au cours des formations ?
   a) Pourquoi les agriculteur·rice·s appliquent-ils·elles certaines techniques mais pas toutes ? Description qualitative des facteurs favorisant l’application des techniques/compétences/connaissances ; Description qualitative des facteurs défavorisant l’application des techniques/compétences/connaissances

4. Selon vous, quel est le changement le plus important que les formations ont généré pour les agriculteur·rice·s cultivant le coton ? Question ouverte concernant les impacts sociaux et économiques des formations

5. Comment la pandémie COVID-19 a-t-elle influencé le processus de formation dans votre société cotonnière l’année dernière ? Description qualitative des facteurs favorisant l’application des techniques/compétences/connaissances ; Description qualitative des facteurs défavorisant l’application des techniques/compétences/connaissances
Gestion de la société cotonnière

Pour faire partie de l’initiative Cotton made in Africa, les sociétés cotonnières participantes doivent se soumettre à un processus de certification géré par la fondation Aid by Trade. Une partie du processus de certification est un plan de gestion/plan d’amélioration continue mis à jour chaque année lors des certifications.

1. Si vous avez travaillé pour la société cotonnière avant qu’elle ait rejoint CmiA : Avez-vous perçu une différence (positive ou négative) dans la gestion de la société cotonnière depuis sa certification par l’initiative Cotton made in Africa ? Auto-évaluation de l’évolution de la gestion de la société cotonnière (par le personnel de la société cotonnière)

2. Comment le pool d’agriculteur·rice·s de la société s’est-il développé ces dernières années ?
   Description qualitative de la taille et de la continuité du pool d’agriculteur·rice·s et de sa relation avec a) l’amélioration de la gestion des sociétés cotonnières b) les projets communautaires soutenus par CmiA
   a) Existe-t-il des agriculteur·rice·s qui ont arrêté de cultiver le coton ou est-ce que la plupart continue de cultiver le coton ? Motivation des agriculteur·rice·s à rester dans la société cotonnière (seulement Z) et dans le secteur du coton en tant que tel (CIV, Z) et sa relation avec a) une meilleure gestion des sociétés cotonnières b) les projets communautaires soutenus par CmiA

3. Comment la pandémie COVID-19 a-t-elle influencé les activités de votre société cotonnière la dernière année ? Question ouverte concernant l’influence de la pandémie COVID-19

Les impacts économiques

Pour évaluer les impacts économiques de l’initiative Cotton made in Africa, nous aimerions connaître votre avis sur les questions suivantes :

1. Quelles sont les caractéristiques d’un-e « cultivateur·rice de coton prospère » ? Description qualitative des facteurs promouvant l’amélioration de la situation économique des agriculteur·rice·s ; Description qualitative des facteurs empêchant l’amélioration de la situation économique des agriculteur·rice·s

2. Quels sont les principaux facteurs qui influencent les revenus des agriculteur·rice·s ? Description qualitative des facteurs déterminant les revenus des ménages d’agriculteur·rice·s
   a) Comment les agriculteur·rice·s peuvent-ils-elles influencer ces facteurs ?
   b) Comment les formations sur les différents aspects de la culture du coton peuvent-elles influencer les revenus des agriculteur·rice·s ?
   c) Savez-vous si les revenus des agriculteur·rice·s provenant de la culture du coton ont augmenté ou diminué depuis que la société cotonnière a été certifiée par CmiA ?
   d) Pouvez-vous estimer l’effet de la pandémie COVID-19 sur les revenus des cultivateur·rice·s de coton cette campagne ?

3. Quels sont les principaux facteurs qui influencent l’agriculteur·rice qui cultive plusieurs cultures différentes (par rapport aux agriculteur·rice·s qui ne cultivent que quelques cultures) ? Description qualitative des facteurs déterminant la diversification des cultures chez les agriculteur·rice·s
   a. Si vous avez travaillé pour cette société cotonnière avant qu’elle ait rejoint CmiA : Dans quelle mesure la diversité des cultures des agriculteur·rice·s a-t-elle changé depuis le début de CmiA ?

4. Quel est le rendement moyen d’un-e agriculteur·rice cultivant le coton dans ce pays par hectare ? Rendement annuel du coton par ha (rapport rétrospectif sur le rendement) ; Description qualitative des facteurs déterminant le rendement du coton chez les agriculteur·rice·s
   a) Comment les rendements peuvent-ils être augmentés ?

5. Pensez-vous que les formations soutenues par CmiA peuvent influencer le rendement du coton des agriculteur·rice·s ? Si oui - Comment ? Si non - Pourquoi pas / que faudrait-il changer ?
Quels sont les principaux coûts des intrants pour les agriculteur·rice·s cultivant le coton ?

**Description qualitative des facteurs déterminant le coût des intrants**

a) Quels sont les principaux facteurs qui influencent le coût des intrants pour les agriculteur·rice·s ?

b) Comment ces facteurs ont-ils évolué au cours des dernières années ?

6. Quels autres facteurs externes ont un effet sur la situation économique des agriculteur·rice·s ?

**Description qualitative des facteurs déterminant les revenus de ménage des agriculteur·rice·s**

**Les impacts sociaux**

Pour évaluer les impacts sociaux de l’initiative Cotton made in Africa, nous aimerions connaître votre avis sur les questions suivantes :

1. Comment évaluez-vous l’évolution de la situation sociale des cultivateur·rice·s de coton ?

a) Y a-t-il eu ces dernières années dans cette région, une période au cours de laquelle les agriculteur·rice·s ont connu la famine ? Si oui, combien de temps cette période a-t-elle duré ? **Durée et gravité de la saison de la faim**

b) Dans quelle mesure les agriculteur·rice·s de cette région cultivant le coton ont-ils-elles accès aux soins médicaux ? Comment cela a-t-il évolué ces dernières années ? **Accès aux soins médicaux**

c) Est-ce que la majorité des enfants des agriculteur·rice·s cultivant le coton ont-ils été scolarisés ? Comment cela a-t-il évolué ces dernières années ? **Proportion d’enfants dans le ménage fréquentant régulièrement l’école ; Proportion d’enfants travaillant dans les champs**

2. D’une manière générale, quelles sont les conditions de vie des cultivateur·rice·s de coton dans cette région aujourd’hui - par rapport à il y a cinq ans ? **Question d’évaluation globale : Dans quelle mesure les conditions de vie des agriculteur·rice·s et de leurs familles sont-elles améliorées ?**

3. Quels autres facteurs (externes) ont un effet sur la situation sociale des agriculteur·rice·s ?

**Description qualitative des facteurs promouvant l’amélioration de la situation sociale des agriculteur·rice·s ; Description qualitative des facteurs empêchant l’amélioration de la situation sociale des agriculteur·rice·s**

**Questions finales**

1. Avez-vous connaissance de conséquences positives, négatives ou non intentionnelles de l’implication de l’initiative Cotton made in Africa ? **Description qualitative des conséquences positives non intentionnelles de l’implication de CmiA ; Description qualitative des conséquences négatives non intentionnelles de l’implication de CmiA.**

2. À votre avis, y a-t-il d’autres aspects importants à prendre en compte dans cette évaluation ?

**Merci beaucoup pour votre temps et votre soutien !**
Déclaration de consentement à la politique de protection des données

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Si vous participez à l’entretien, toutes les informations que vous avez fournies ("données de l'entretien") seront transférées à SYSPONS GmbH, stockées et évaluées par SYSPONS GmbH. La fondation Aid by Trade reçoit les résultats de l'évaluation de SYSPONS GmbH qui obtient et traite les données de l’enquête. Les résultats peuvent contenir des informations qui permettent d'attribuer les déclarations faites aux personnes interrogées. Si cela n’est pas dans votre intérêt, veuillez-nous le faire savoir afin que nous puissions nous assurer que vos données ne sont transmises que sous forme anonyme.

Vous trouverez de plus amples informations sur le traitement de vos données par SYSPONS GmbH dans la politique de confidentialité de SYSPONS GmbH, disponible à l’adresse https://www.syspons.com/fr/politique-de-confidentialite/.

Le traitement est exclusivement destiné à recueillir des avis, des expériences et des opinions en rapport avec l’objet de l’enquête.

La participation à l’entretien est volontaire. Si vous souhaitez participer, la déclaration de votre consentement est requise pour le traitement des données, car le traitement des données susmentionnées est nécessaire pour l’exécution de l’enquête et nous ne sommes pas autorisés à traiter ces données à cette fin sans votre consentement conformément à la loi applicable sur la protection des données.

Vous pouvez révoquer ce consentement à tout moment en nous contactant par téléphone ou par e-mail. En cas de révocation, le traitement des données effectué jusqu’à ce moment restera licite.
Annex Case Study: Research on impacts of the CmiA initiative on livelihoods of small-holder farmers in sub-Saharan Africa

Introduction

Afin d’améliorer les conditions de vie des petits producteur·rice·s de coton, l’initiative Cotton made in Africa (CmiA) collabore avec les sociétés cotonnières pour les soutenir dans leurs efforts visant à fournir aux agriculteur·rice·s un savoir-faire en matière de capacités agricoles améliorées et durables. L’évaluation menée par Syspons vise à (1) identifier les résultats obtenus jusqu’à présent, et (2) identifier les éléments de CmiA qui fonctionnent bien et ceux qui ne fonctionnent pas afin d’améliorer l’initiative à l’avenir. À cette fin, Syspons et les évaluateur·rice·s locaux-ales mènent une enquête auprès des agriculteur·rice·s cultivant le coton ainsi que des entretiens qualitatifs avec les chef·fe·s de l’OPA, les sociétés cotonnières, les conseiller·ière·s agricoles (C/As), et des expert·e·s.

➢ SYSPONS GmbH (Prinzenstraße 84, 10969 Berlin, Allemagne) a été chargé par la Fondation Aid by Trade d’évaluer l’initiative « Cotton made in Africa » et de communiquer les résultats pertinents à la Fondation Aid by Trade.
➢ Nous documenterons l’entretien dans un protocole de résultats. Nous traiterons ce protocole de résultats comme confidentiel.
➢ En participant à l’entretien, vous acceptez le consentement à la protection des données que vous pouvez trouver à la dernière page de ce guide.

Contact :
Syspons GmbH
Prinzenstraße 84
10969 Berlin, Allemagne

Motje Seidler
Consultante senior
Téléphone : + 49 151/2646 0495
E-Mail : motje.seidler@syspons.com

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Introduction

1. Veuillez expliquer brièvement votre rôle/profession et les tâches que cela implique.
2. Veuillez expliquer brièvement si et dans quelle mesure votre rôle est lié à l'initiative Cotton made in Africa (CmiA) et les sociétés cotonnières certifiées par CmiA.

Le secteur du coton dans votre pays

1. Selon vous, quels ont été les défis les plus importants dans le secteur du coton au cours des cinq dernières années ? Description qualitative des facteurs promouvant l'amélioration de la situation économique des agriculteur·rice·s ; Description qualitative des facteurs empêchant l'amélioration de la situation économique des agriculteur·rice·s
2. Selon vous, quels seront les plus grands défis pour le secteur du coton au cours des cinq prochaines années ? Description qualitative des facteurs promouvant l'amélioration de la situation économique des agriculteur·rice·s ; Description qualitative des facteurs empêchant l'amélioration de la situation économique des agriculteur·rice·s
3. Selon vous, quel est l'effet de la pandémie COVID-19 sur les sociétés cotonnières et les agriculteur·rice·s cultivant le coton ? Description qualitative des facteurs promouvant l'amélioration de la situation économique des agriculteur·rice·s ; Description qualitative des facteurs empêchant l'amélioration de la situation économique des agriculteur·rice·s
4. Que pourraient faire les sociétés cotonnières pour soutenir les agriculteur·rice·s cultivant le coton ?
   a. En améliorant leurs conditions de vie ? Évaluation externe de l'évolution de la gestion de la société cotonnière (par les agriculteur·rice·s et les acteur·rice·s externes)
   b. En devenant plus résistant·e·s aux chocs externes comme les extrêmes météorologiques ou les effets des pandémies comme COVID-19 ? Évaluation externe de l'évolution de la gestion de la société cotonnière (par les agriculteur·rice·s et les acteur·rice·s externes)

Le processus de formation

Afin d'améliorer les conditions de vie des petits producteurs de coton, l'Initiative Cotton made in Africa (CmiA) vise à leur fournir un savoir-faire en matière de capacités agricoles améliorées et durables. L'initiative certifie les sociétés cotonnières, si elles respectent certaines exigences, et fournit des fonds et du matériel pour les formations.

1. Comment les différentes sociétés cotonnières de ce pays organisent-elles des formations pour les agriculteur·rice·s cultivant le coton ? Description qualitative des formations en ce qui concerne les techniques didactiques, la combinaison des sujets, etc.

3. Qu'est-ce qui a changé en matière de formation des agriculteur·rice·s au cours des dernières années ? De quelle manière les initiatives COMPACI / CmiA ont-elles été impliquées dans ces changements ? Description qualitative des formations en ce qui concerne les techniques didactiques, la combinaison des sujets, etc. ; évaluation externe de l'évolution de la gestion des sociétés cotonnières (par agriculteur·rice·s et acteur·rice·s externes)

4. Quels sont les défis actuels pour les sociétés cotonnières en matière de formation des agriculteur·rice·s ? Évaluation externe de l'évolution de la gestion des sociétés cotonnières (par agriculteur·rice·s et acteur·rice·s externes)

5. De votre point de vue, quels sont les facteurs qui influencent la mise en pratique des techniques et compétences acquises lors d'une formation ? Description qualitative des facteurs favorisant l'application des techniques/compétences/connaissances ; Description qualitative des facteurs défavorisant l'application des techniques/compétences/connaissances

6. Selon vous, quel est le changement le plus important que les formations ont généré pour les agriculteur·rice·s cultivant le coton ? Question ouverte concernant les impacts sociaux et économiques des formations
Les sociétés cotonnières et le processus de certification de l’initiative

Pour faire partie de l’initiative Cotton made in Africa, les sociétés cotonnières participantes doivent se soumettre à un processus de certification géré par la fondation Aid by Trade. Savez-vous quelles sociétés cotonnières de votre pays sont certifiées par CmiA ?

1. Percevez-vous une différence dans la gestion des sociétés cotonnières certifiées par l’initiative Cotton made in Africa par rapport aux sociétés qui ne sont pas certifiées ? Évaluation externe de l’évolution de la gestion de la société cotonnière (par les agriculteur·rice·s et acteur·rice·s externes)

2. Quels sont les facteurs de succès des sociétés cotonnières en ce qui concerne
   a) Des rendements élevés pour le coton ? Description qualitative des facteurs déterminant les rendements du coton chez les agriculteur·rice·s
   b) La mise en œuvre de formations pour les agriculteur·rice·s ? Description qualitative des activités par société cotonnière, y compris a) le type d’activité b) l’étendue de l’activité

Les impacts économiques

Pour évaluer les impacts économiques de l’initiative Cotton made in Africa, nous aimerions connaître votre avis sur les questions suivantes :

1. Veuillez s’il vous plaît décrire les conditions de vie économiques et sociales des agriculteur·rice·s cultivant le coton dans le pays (ou dans une région spécifique) ? Description qualitative des facteurs déterminant les revenus des ménages d’agriculteur·rice·s ; Description qualitative des facteurs promouvant l’amélioration de la situation sociale des agriculteur·rice·s ; Description qualitative des facteurs empêchant l’amélioration de la situation sociale des agriculteur·rice·s
   a) Quels sont les principaux défis que rencontrent les agriculteur·rice·s cultivant le coton ?

2. Quels sont les principaux facteurs qui influencent les revenus des agriculteur·rice·s ? Description qualitative des facteurs déterminant les revenus des ménages d’agriculteur·rice·s
   b) Comment les agriculteur·rice·s peuvent-ils-elles influencer ces facteurs ?
   c) Comment les formations sur les bonnes pratiques agricoles peuvent-elles influencer les revenus des agriculteur·rice·s ?

3. Quels sont les principaux facteurs qui influencent l’agriculteur·rice qui cultive plusieurs cultures différentes (par rapport aux agriculteur·rice·s qui ne cultivent que quelques cultures) ? Description qualitative des facteurs déterminant la diversification des cultures chez les agriculteur·rice·s
   a) Comment la diversité des cultures des agriculteur·rice·s a-t-elle évolué dans le pays au cours des dernières années ?

4. Quel est le rendement moyen d’un·e agriculteur·rice cultivant le coton dans cette région par hectare ? (Estimation) Rendement annuel du coton par ha (rapport rétrospectif sur le rendement)
   b) Quelles mesures existent pour augmenter les rendements des agriculteur·rice·s ? Description qualitative des facteurs déterminant les rendements du coton des agriculteur·rice·s

5. Dans quelle mesure les agriculteur·rice·s ont-ils-elles des rendements plus élevés après avoir participé à des formations - par CmiA ou par d'autres acteurs ? Description qualitative des facteurs déterminant le rendement du coton chez les agriculteur·rice·s
   a. Quels sont les principaux coûts des intrants pour les agriculteur·rice·s cultivant le coton ? Description qualitative des facteurs déterminant le coût des intrants
   b. Quels sont les principaux facteurs qui influencent le coût des intrants pour les agriculteur·rice·s ?
c. Comment ces facteurs ont-ils évolué au cours des dernières années ?

6. Quels autres facteurs externes ont un effet sur la situation économique des agriculteur·rice·s ?
   *Description qualitative des facteurs déterminant les revenus de ménage des agriculteur·rice·s*

7. Pouvez-vous recommander d'autres sources de données secondaires sur la situation économique et sociale des agriculteur·rice·s (statistiques, littérature universitaire, études, etc.) ? *Question ouverte pour plus d'informations*

**Impacts sociaux**

1. Comment évaluez-vous l'évolution de la situation sociale des cultivateur·rice·s de coton dans cette région ?
   a) Y a-t-il eu ces dernières années dans cette région, une période au cours de laquelle les agriculteur·rice·s ont connu la famine ? Si oui, combien de temps cette période a-t-elle duré ? *Durée et gravité de la saison de la faim*
   b) Dans quelle mesure les agriculteur·rice·s de cette région cultivant le coton ont-ils·elles accès aux soins médicaux ? Comment cela a-t-il évolué ces dernières années ? *Accès aux soins médicaux*
   c) Est-ce que la majorité des enfants des ménages des agriculteur·rice·s cultivant le coton ont-ils·elles été scolarisés ? Comment cela a-t-il évolué ces dernières années ? *Proportion d'enfants dans le ménage fréquentant régulièrement l'école ; Proportion d'enfants travaillant dans les champs*

2. Quels autres facteurs (externes) ont un effet sur la situation sociale des agriculteur·rice·s ?
   *Description qualitative des facteurs promouvant l'amélioration de la situation sociale des agriculteur·rice·s ; Description qualitative des facteurs empêchant l'amélioration de la situation sociale des agriculteur·rice·s*

**Questions finales**

1. Avez-vous connaissance de conséquences positives, négatives ou non intentionnelles de l'implication de l'initiative Cotton made in Africa ? *Description qualitative des conséquences positives non intentionnelles de l'implication de CmiA ; Description qualitative des conséquences négatives non intentionnelles de l'implication de CmiA.*

2. À votre avis, y a-t-il d'autres aspects importants à prendre en compte dans cette évaluation ?

*Merci beaucoup pour votre temps et votre soutien !*
Déclaration de consentement à la politique de protection des données

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1 Contexte

Cher-ère recenseur, toutes les instructions et questions qui vous sont adressées sont écrites en italique. Tout ce qui doit être lu à l’agriculteur n’est pas écrit en italique.

Veuillez interroger la personne qui, dans le ménage, est responsable de la culture du coton. Il se peut que ce ne soit pas la personne qui est officiellement enregistrée auprès de la société cotonnière. Veuillez commencer par vérifier auprès de la personne interrogée qu’elle cultive actuellement du coton. S’il-elle ne cultive pas de coton, veuillez interrompre l’entretien.

Points généraux pour remplir l’enquête :
- Si les questions portent sur l’argent (revenus ou dépenses), veuillez indiquer la valeur dans la monnaie locale (CFA-Franc)
- Si une question a une réponse numérique (par exemple, nombre de jours, argent dépensé) et que la réponse est « aucun » ou « rien », veuillez saisir 0.

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Survey Question (French)</th>
<th>Reply Options (French)</th>
</tr>
</thead>
<tbody>
<tr>
<td>country</td>
<td>01. Pays</td>
<td>1 Zambia 2 Côte d’Ivoire</td>
</tr>
<tr>
<td>enam</td>
<td>02. Nom du recenseur</td>
<td>[names]</td>
</tr>
<tr>
<td>companyname</td>
<td>03. Société cotonnière</td>
<td>2 C.O.I.C 4 Ivoire Coton</td>
</tr>
<tr>
<td>locallanguage</td>
<td>04. La langue locale la plus importante (celle que l'agriculteur-rice parle avec le plus d'assurance)</td>
<td>text</td>
</tr>
<tr>
<td>distributor</td>
<td>05. OPA</td>
<td>list of OPA</td>
</tr>
</tbody>
</table>

L’entretien avec l’agriculteur-rice commence ici. Pour commencer, veuillez lire le formulaire de consentement à l’agriculteur-rice et vous assurer qu’il-elle comprend le contexte et ses droits.

| consent       | 06. Déclaration de consentement Informations importantes sur cette enquête : 1. La participation à l’enquête est entièrement volontaire. 2. Nous travaillerons avec vos données de manière anonymisée, ce qui signifie que nous n’identifierons pas vos réponses par votre nom. 3. La société cotonnière ne saura pas ce que vous avez dit individuellement. Ils ne recevront que les données concernant l’ensemble du village ou de la province. 4. Si vous êtes d’accord maintenant, votre accord n’est pas automatiquement permanent. Vous pouvez décider à tout moment de l’entretien que vous ne voulez pas participer à l’enquête ou que vous voulez que nous supprimions vos réponses. | 1 Oui, je consens |
| cottonresponsible | 08. Êtes-vous responsable de la culture du coton dans votre ménage ? | 1 Oui 2 Non |
| leadfarmer | 09. Êtes-vous un-e producteur-rice pilote ou chef de l’OPA ? Recenseur : Veuillez vérifier auprès de la société cotonnière / liste des producteur-rice-s pilotes et chefs de l’OPA. | 1 Oui 2 Non 8888 Ne sait pas 9999 Refusé |
| fnam1 | 10. Nom de l’agriculteur-rice: prénom | text |
| fnam3 | 10. Nom de l’agriculteur-rice: nom de famille | text |
| fmname | 10. Nom de l’agriculteur-rice: deuxième prénom | text |
| fage | 13. Année de naissance de l’agriculteur-rice | numeric |
2 Ménage et éducation
Pour mieux comprendre votre situation, nous aimerions en savoir plus sur vous et votre famille/ménage.

<table>
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<th>Variable Name</th>
<th>Survey Question (French)</th>
<th>Reply Options (French)</th>
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</thead>
<tbody>
<tr>
<td>household</td>
<td>01. Combien de personnes composent cet ménage (combien de personnes mangent ensemble dans ce ménage régulièrement) ?</td>
<td>numeric</td>
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<tr>
<td>householdhead</td>
<td>02. Qui est le chef de ménage ?</td>
<td>1. Je suis le chef de ménage 2. Mon mari est le chef de ménage 3. Une autre personne est le chef de ménage</td>
</tr>
<tr>
<td>boys</td>
<td>03. Combien de garçons âgés d’aller à l’école primaire (7-16 ans) sont dans ce ménage ?</td>
<td>numeric</td>
</tr>
<tr>
<td>boysyoung</td>
<td>04. Combien de garçons ayant moins que l’âge d’aller à l’école primaire (7 ans) sont dans ce ménage ?</td>
<td>numeric</td>
</tr>
<tr>
<td>girls</td>
<td>05. Combien de filles âgés d’aller à l’école primaire (7-16 ans) sont dans ce ménage ?</td>
<td>numeric</td>
</tr>
<tr>
<td>girlsyoung</td>
<td>06. Combien de filles ayant moins que l’âge d’aller à l’école primaire (7 ans) sont dans ce ménage ?</td>
<td>numeric</td>
</tr>
<tr>
<td>hhm65plus</td>
<td>07. Combien de personnes de votre ménage ont 65 ans ou sont plus âgées ?</td>
<td>numeric</td>
</tr>
<tr>
<td>poverty_08ci</td>
<td>18. Le ménage a-t-il possédé un vélocimoteur, une voiture, ou une camionnette en bon état de fonctionnement au cours des 3 derniers mois ?</td>
<td>1. Le ménage possède une voiture ou une camionnette 2. Le ménage possède un vélocimoteur et ne possède pas de voiture ou de camionnette 3. Aucun</td>
</tr>
<tr>
<td>poverty_09ci</td>
<td>19. Le ménage a-t-il possédé un ventilateur en bon état de fonctionnement au cours des 3 derniers mois ?</td>
<td>1. Oui 2. Non</td>
</tr>
<tr>
<td>poverty_10ci</td>
<td>20. Le ménage a-t-il possédé un lit en bon état de fonctionnement au cours des 3 derniers mois ?</td>
<td>1. Oui 2. Non</td>
</tr>
<tr>
<td>farmerlocalability</td>
<td>01. Est ce que vous êtes capable de lire et écrire en la langue la plus courante ?</td>
<td>1 Oui, avec difficulté 2 Oui, facilement 7777 Non 8888 Ne sait pas 9999 Refusé</td>
</tr>
<tr>
<td>-------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>farmerlangability</td>
<td>02. Est ce que vous êtes capable de lire et écrire en Français ?</td>
<td>8888 Ne sait pas</td>
</tr>
<tr>
<td>headlocalability</td>
<td>03. Le-la chef-fe- de ménage est-il-elle capable de lire et écrire en la langue la plus courante ?</td>
<td>1 Oui, avec difficulté 2 Oui, facilement 7777 Non 8888 Ne sait pas 9999 Refusé</td>
</tr>
<tr>
<td>headlangability</td>
<td>04. Le-la chef-fe- de ménage est-il-elle capable de lire et écrire en Français ?</td>
<td>8888 Ne sait pas</td>
</tr>
<tr>
<td>spouseengability</td>
<td>05. Est ce que votre époux-se, est-il-elle capable de lire et écrire en la langue la plus courante ?</td>
<td>1 Oui, avec difficulté 2 Oui, facilement 7777 Non 8888 Ne sait pas 9999 Refusé</td>
</tr>
<tr>
<td>spouselocalability</td>
<td>06. Est ce que votre époux-se, est-il-elle capable de lire et écrire en Français ?</td>
<td>1 Oui, avec difficulté 2 Oui, facilement 7777 Non 8888 Ne sait pas 9999 Refusé</td>
</tr>
<tr>
<td>educ</td>
<td>07. Quel est le plus haut niveau d’éducation que vous avez atteint ?</td>
<td>1 CP 2 CE 1 3 CE 2 4 CM 1 5 CM 2 6 6ème 7 5ème 8 4ème 9 3ème 10 2nd 11 1ère 12 Terminale 13 Primaire 20 Secondaire 14 Formation professionnelle 15 Université 16 Autre enseignement post-secondaire 7777 Aucun 8888 Ne sait pas 9999 Refusé</td>
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<tr>
<td>Tableau</td>
<td>Questions</td>
<td>Réponses</td>
</tr>
<tr>
<td>---------</td>
<td>-----------</td>
<td>----------</td>
</tr>
<tr>
<td>headeduc</td>
<td>08. Quel est le plus haut niveau d'éducation que le-la chef-fe de ménage a atteint ?</td>
<td>1 CP 2 CE 1 3 CE 2 4 CM 1 5 CM 2 6 6ème 7 5ème 8 4ème 9 3ème 10 2nd 11 1ère 12 Terminale 13 Primaire 20 Secondaire 14 Formation professionnelle 15 Université 16 Autre enseignement post-secondaire</td>
</tr>
<tr>
<td>educspouse</td>
<td>09. Quel est le plus haut niveau d'éducation atteint par votre époux-e ?</td>
<td>1 CP 2 CE 1 3 CE 2 4 CM 1 5 CM 2 6 6ème 7 5ème 8 4ème 9 3ème 10 2nd 11 1ère 12 Terminale 14 Formation professionnelle 15 Université 16 Autre enseignement post-secondaire</td>
</tr>
<tr>
<td>boyschool</td>
<td>10. Combien de GARÇONS d'âges compris entre 7-16 ans dans votre ménage vont régulièrement (au moins 4 jours par semaine) à l'école les jours de classe dans ce ménage ?</td>
<td>numeric</td>
</tr>
<tr>
<td>girlschool</td>
<td>11. Combien de FILLES d'âges compris entre 7-16 ans vont régulièrement (au moins 4 jours par semaine) à l'école les jours de classe dans ce ménage ?</td>
<td>numeric</td>
</tr>
<tr>
<td>boywork</td>
<td>12. À quelle fréquence les GARÇONS d'âges compris entre 7-16 ans aident-ils à la ferme ?</td>
<td>0 Jamais 1 Parfois (par exemple le week-end, parfois pendant le désherbage / la récolte) 2 La plupart du temps pendant le désherbage / la récolte 3 Toujours (chaque fois qu'il y a du travail à faire)</td>
</tr>
</tbody>
</table>
## Variable Name | Survey Question (French) | Reply Options (French)
--- | --- | ---
leanperiod | 01. Durant les 12 derniers mois (depuis Mars 2020), y-a-t-il eu une période pendant laquelle le ménage n’a pas eu assez de nourriture à manger, c’est-à-dire que le ménage a dû omettre des repas ? | 1 Oui 2 Non 8888 Ne sait pas 9999 Refusé

leanperiodmb | 02. Dans quel mois, cette période a-t-elle commencé (la période pendant laquelle le ménage n’a pas eu assez de nourriture à manger) ? | SC 1 Janvier 2 Février 3 Mars 4 Avril 5 Mai 6 Juin 7 Juillet 8 Août 9 Septembre 10 Octobre 11 Novembre 12 Décembre 8888 Ne sait pas 9999 Refusé

leanperiodme | 03. Dans quel mois, cette période est finie (la période pendant laquelle le ménage n’a pas eu assez de nourriture à manger) ? | SC 1-12 Janvier-Décembre 8888 Ne sait pas 9999 Refusé

leanseverity | 04. Combien de semaines, cette période a-t-elle duré (la période pendant laquelle le ménage n’a pas eu assez de nourriture à manger) ? | numeric

bnsick | 01. Un membre de ce ménage a-t-il été malade (pas maladie chronique) ou a-t-il eu besoin de soins médicaux (en raison d’un accident, par exemple) au cours des 12 derniers mois (depuis Mars 2020) ? | 1 Oui 2 Non 8888 Ne sait pas 9999 Refusé
Annex Case Study: Research on impacts of the CmiA initiative on livelihoods of small-holder farmers in sub-Saharan Africa

3 Formation

Maintenant, nous aimerions nous renseigner sur les formations que vous avez reçues de la société cotonnière.

Recenseur, demandez aux agriculteur·rice·s : Sur quels sujets avez-vous reçu une formation ? Ensuite, identifiez les sujets qu’ils·elles mentionnent et répondez à la question 04 à leur place.

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Survey Question (French)</th>
<th>Reply Options (French)</th>
</tr>
</thead>
<tbody>
<tr>
<td>training</td>
<td>01. Combien de sessions de formation distinctes dispensées par la société cotonnière et/ou les chefs de l’OPA avez-vous suivies au cours de la dernière campagne (2020/2021) ?</td>
<td>numeric</td>
</tr>
<tr>
<td>trainingfirst</td>
<td>02. Quand avez-vous reçu pour la première fois une formation de la société cotonnière ?</td>
<td>season</td>
</tr>
<tr>
<td>notraining</td>
<td>03. Quelle est la principale raison pour laquelle vous n’avez suivi aucune session de formation liée au coton donnée par la société cotonnière et/ou les chefs de l’OPA?</td>
<td>1 Aucune formation disponible dans le village  2 Trop occupé·e pour y assister  3 N’ était pas au courant des formations à temps pour y assister  4 Aucun intérêt pour la formation en raison des sujets/méthodes de formation  5 J’ai envoyé quelqu’un d'autre pour suivre la formation à ma place  6 Aucun intérêt  7 Autre  8888 Ne sait pas  9999 Refusé</td>
</tr>
<tr>
<td>hhmattended_Crop_Rotation</td>
<td>04. Sur lequel des sujets suivants avez-vous reçu une formation ?</td>
<td>La rotation des culture  0 Faux  1 Vrai</td>
</tr>
<tr>
<td>Question</td>
<td>Option 1</td>
<td>Option 2</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>Techniques de fertilité des sols (compostage, paillage, thé de fumier, etc.)</td>
<td>0 Faux</td>
<td>1 Vrai</td>
</tr>
<tr>
<td>Plantation précoce</td>
<td>0 Faux</td>
<td>1 Vrai</td>
</tr>
<tr>
<td>Population de plantes correcte (espacement des plantes, remplissage des trous, éclaircissement)</td>
<td>0 Faux</td>
<td>1 Vrai</td>
</tr>
<tr>
<td>Lutte contre les mauvaises herbes (désherbage en temps utile, méthodes de lutte contre les mauvaises herbes, utilisation d'herbicides)</td>
<td>0 Faux</td>
<td>1 Vrai</td>
</tr>
<tr>
<td>Lutte intégrée contre les parasites (identification des parasites et des bénéficiaires ; repérage à l'aide d'un tableau de bord ; décision de pulvériser ou non)</td>
<td>0 Faux</td>
<td>1 Vrai</td>
</tr>
<tr>
<td>Utilisation et stockage corrects des pesticides</td>
<td>0 Faux</td>
<td>1 Vrai</td>
</tr>
<tr>
<td>Techniques de récolte</td>
<td>0 Faux</td>
<td>1 Vrai</td>
</tr>
<tr>
<td>Élaboration compte exploitation</td>
<td>0 Faux</td>
<td>1 Vrai</td>
</tr>
<tr>
<td>Les problèmes liés au travail des enfants</td>
<td>0 Faux</td>
<td>1 Vrai</td>
</tr>
<tr>
<td>Les rôles de genre</td>
<td>0 Faux</td>
<td>1 Vrai</td>
</tr>
<tr>
<td>Prévention du VIH</td>
<td>0 Faux</td>
<td>1 Vrai</td>
</tr>
<tr>
<td>Autre</td>
<td>0 Faux</td>
<td>1 Vrai</td>
</tr>
<tr>
<td>Ne sait pas</td>
<td>0 Faux</td>
<td>1 Vrai</td>
</tr>
<tr>
<td>Pas de formation</td>
<td>0 Faux</td>
<td>1 Vrai</td>
</tr>
<tr>
<td>Préparation du sol</td>
<td>0 Faux</td>
<td>1 Vrai</td>
</tr>
<tr>
<td>06. À combien de réunions distinctes liées au coton et organisées par la société cotonnière et/ou les chefs de l'OPA avez-vous assisté au cours de la dernière campagne ?</td>
<td>numeric</td>
<td></td>
</tr>
<tr>
<td>07. À combien de démonstrations agricoles distinctes liées au coton, données par la</td>
<td>numeric</td>
<td></td>
</tr>
</tbody>
</table>
société cotonnière et/ou les chefs de l'OPA avez-vous assisté au cours de la dernière campagne ?

informaladvice 08. À combien de sessions de conseils données par les C/As sur la culture du coton avez-vous assisté au cours de la dernière campagne ? numeric

4 La culture du coton et la production de coton

Ensuite, nous aimerions savoir comment vous cultivez votre coton.

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Survey Question (French)</th>
<th>Reply Options (French)</th>
</tr>
</thead>
<tbody>
<tr>
<td>years</td>
<td>01. Depuis combien de temps (combien d’années) cultivez-vous le coton ?</td>
<td>numeric</td>
</tr>
<tr>
<td>method</td>
<td>04. Quelle était la plus importante méthode pour la préparation du sol (Labour) utilisée sur vos parcelles de coton? (La méthode utilisée sur toutes ou presque toutes vos parcelles de coton en 2020/2021)</td>
<td>1 Semis en ligne 2 Semoir 8888 Ne sait pas 9999 Refusé</td>
</tr>
<tr>
<td>rowseeddrilling</td>
<td>05. Comment avez-vous semé votre coton en 2020 / 2021?</td>
<td>1 Plus de 7 jours avant 2 1-7 jours avant 3 0-7 jours après 4 8-14 jours après 5 15 jours ou plus après 8888 Ne sait pas 9999 Refusé</td>
</tr>
<tr>
<td>rainpdays</td>
<td>06. Combien de jours avant ou après les premières pluies de semis, avez-vous semé votre coton?</td>
<td>1 Ma propre expérience 2 Conseils d’un-e autre agriculteur-rice / de ma famille 3 Conseils des C/As ou chefs de l’OPA 4 Je l’ai appris en formation 5 Autres 8888 Ne sait pas 9999 Refusé</td>
</tr>
<tr>
<td>rainadvice</td>
<td>07. Qu’est-ce qui vous a aidé à décider quand planter votre coton ?</td>
<td>1 Oui 2 Non 8888 Ne sait pas 9999 Refusé</td>
</tr>
<tr>
<td>anyotherplants</td>
<td>08. Avez-vous associé votre coton avec autres cultures?</td>
<td>1 Oui 2 Non 8888 Ne sait pas 9999 Refusé</td>
</tr>
<tr>
<td>gapfill</td>
<td>09. Avez-vous fait n’importe quel remploiage d’espace (resemis là où les plantes n’ont pas poussé)?</td>
<td>1 Oui 2 Non 8888 Ne sait pas 9999 Refusé</td>
</tr>
</tbody>
</table>
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10. Combien de jours après levée (JAL) avez-vous procédé au remplacement des poquets manquants ?
   Si c’est le même jour, saisissez 0.
   numeric

11. Qu’est-ce qui vous a aidé à décider quand combler les lacunes ?
   numeric

12. Combien d’hectares de superficies utilisez-vous pour toutes les cultures y compris le coton durant la campagne agricole actuelle (2020-2021) ?
   numeric

13. Quelqu’un qui n’appartient pas à votre ménage vous a-t-il aidé dans les travaux de vos champs de coton (y compris la préparation du terrain, le semis, le désherbage, les traitements phytosanitaires et la récolte) cette campagne ?
   numeric

14. Combien avez-vous dépensé pour rémunérer les travailleuse-travailleurs (main-d’œuvre) pendant toute la campagne (2020-2021) ?
   numeric

15. Combien avez-vous dépensé en location ou l’achat de matériel agricole ou de tout autre intrants non liés à la main-d’œuvre pendant toute la campagne (2020-2021) ?
   numeric

   numeric

Variable Name | Survey Question (French) | Reply Options (French)
--- | --- | ---
juscotton | 01. Combien d'hectares (ha) de superficies utilisez-vous juste pour le coton durant la campagne agricole actuelle (2020-2021) ? | numeric
numofseedpacks1 | 02. Combien de sachets de semences avez-vous reçus de la société cotonnière pour cultiver le coton ? Nombre de sachets de ½ hectare : | numeric
spend_seeds | 04. Combien avez-vous dépensé en semences de coton au cours de la campagne agricole actuelle (2020-2021) ? | numeric
area1 | 05. Recenseur: Combien d'hectares représente la plus grande parcelle ? Vérifiez auprès du personnel de la société cotonnière ou chef de l'OPA. | numeric
kg1farmer | 06. Quelle a été la production de coton (kg) cette campagne agricole ? | numeric
kg1 | 07. Recenseur : Quelle est la production de coton (kg) ? Veuillez vérifier avec les chefs de l'OPA ou la société cotonnière et tenir compte de la taille de la parcelle et du nombre de plantes. | numeric
kg_sold_company | 08. Quelle quantité de coton (kg) avez-vous vendu à la société cotonnière au cours de cette campagne agricole ? | numeric
kg_sold_other |  | numeric
income_company | 10. Combien d'argent avez-vous reçu pour le coton que vous avez vendu à la société cotonnière ? | numeric
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<table>
<thead>
<tr>
<th>Nom de la variable</th>
<th>Question de l’enquête</th>
<th>Options de réponse</th>
</tr>
</thead>
<tbody>
<tr>
<td>crops_BEANS</td>
<td>01. A part le Coton, quelles sont vos plus importantes cultures ? Sélectionnez jusqu'à quatre réponses.</td>
<td>Haricot 0 Faux 1 Vrai</td>
</tr>
<tr>
<td>crops_CASSAVA</td>
<td></td>
<td>Manioc 0 Faux 1 Vrai</td>
</tr>
<tr>
<td>crops_COW_PEA</td>
<td></td>
<td>Niébé 0 Faux 1 Vrai</td>
</tr>
<tr>
<td>crops_GROUNDNUTS</td>
<td></td>
<td>Arachide 0 Faux 1 Vrai</td>
</tr>
<tr>
<td>crops_MAIZE</td>
<td></td>
<td>Maïs 0 Faux 1 Vrai</td>
</tr>
<tr>
<td>crops_MILLET</td>
<td></td>
<td>Mil 0 Faux 1 Vrai</td>
</tr>
<tr>
<td>crops_PIGEON_PEA</td>
<td></td>
<td>Riz 0 Faux 1 Vrai</td>
</tr>
<tr>
<td>crops_RICE</td>
<td></td>
<td>Sorgho 0 Faux 1 Vrai</td>
</tr>
<tr>
<td>crops_SORGHUM</td>
<td></td>
<td>Soja 0 Faux 1 Vrai</td>
</tr>
<tr>
<td>crops_SOYBEAN</td>
<td></td>
<td>Tournesol 0 Faux 1 Vrai</td>
</tr>
<tr>
<td>crops_SUNFLOWER</td>
<td></td>
<td>Patate douce 0 Faux 1 Vrai</td>
</tr>
<tr>
<td>crops_SWEET_POTATO</td>
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<td>Tabac 0 Faux 1 Vrai</td>
</tr>
<tr>
<td>crops_TOBACCO</td>
<td></td>
<td>Sésame 0 Faux 1 Vrai</td>
</tr>
<tr>
<td>crops_SESAME</td>
<td></td>
<td>Noix de cajou 0 Faux 1 Vrai</td>
</tr>
<tr>
<td>crops_CASHEW</td>
<td></td>
<td>Igname 0 Faux 1 Vrai</td>
</tr>
<tr>
<td>Crops_IGNAME</td>
<td></td>
<td>Autre 0 Faux 1 Vrai</td>
</tr>
<tr>
<td>crops_OTHER_1</td>
<td></td>
<td>Autre 0 Faux 1 Vrai</td>
</tr>
<tr>
<td>crops_OTHER_2</td>
<td></td>
<td>Autre 0 Faux 1 Vrai</td>
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</tbody>
</table>
## 5 Fertilité des sols, lutte contre les mauvaises herbes et les parasites

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Survey Question (French)</th>
<th>Reply Options (French)</th>
</tr>
</thead>
<tbody>
<tr>
<td>rotatecrops15</td>
<td>01. En pensant à vos parcelles de coton cette campagne agricole (2020-2021), quelle culture y avez-vous principalement plantée la campagne dernière (2019-2020) ?</td>
<td>1 Mais 2 Arachide 3 Tournesol 4 Sorgho 5 Tabac 6 Mil 7 Riz 8 Soja 9 Niébé 11 Coton 12 Haricots 13 Patate douce 14 Manioc 15 Jachère (aucune culture plantée) 17 Igname 16 Autres 8888 Ne sait pas 9999 Refusé</td>
</tr>
<tr>
<td>rotatecrops14</td>
<td>02. En pensant à vos parcelles de coton cette campagne agricole (2020-2021), quelle culture y avez-vous principalement plantée il y a deux campagnes (2018-2019) ?</td>
<td>1 Mais 2 Arachide 3 Tournesol 4 Sorgho 5 Tabac 6 Mil 7 Riz 8 Soja 9 Niébé 11 Coton 12 Haricots 13 Patate douce 14 Manioc 15 Jachère (aucune culture plantée) 17 Igname 16 Autres 8888 Ne sait pas 9999 Refusé</td>
</tr>
<tr>
<td>rotation</td>
<td>03. Sur quelle proportion de vos parcelles de coton pratiquez-vous la rotation culturale (changement des plantes dans un cycle de 3 ans) ?</td>
<td>1 Toutes 2 Une partie 3 Aucune 8888 Ne sait pas 9999 Refusé</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Compost</th>
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<th>1 Vrai</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gestion des résidus / paillage (fumier vert)</td>
<td>0 Faux</td>
<td>1 Vrai</td>
</tr>
<tr>
<td>Fumier animal</td>
<td>0 Faux</td>
<td>1 Vrai</td>
</tr>
<tr>
<td>Engrais NPK</td>
<td>0 Faux</td>
<td>1 Vrai</td>
</tr>
<tr>
<td>Urée</td>
<td>0 Faux</td>
<td>1 Vrai</td>
</tr>
<tr>
<td>Engrais foliaires</td>
<td>0 Faux</td>
<td>1 Vrai</td>
</tr>
<tr>
<td>Application de chaux</td>
<td>0 Faux</td>
<td>1 Vrai</td>
</tr>
<tr>
<td>Toute forme de travail minimum du sol</td>
<td>0 Faux</td>
<td>1 Vrai</td>
</tr>
<tr>
<td>Le labourage des contours</td>
<td>0 Faux</td>
<td>1 Vrai</td>
</tr>
<tr>
<td>Murs d’érosion (autour ou à l’intérieur de la parcelle)</td>
<td>0 Faux</td>
<td>1 Vrai</td>
</tr>
<tr>
<td>Arbres à engrais autour de la parcelle de coton</td>
<td>0 Faux</td>
<td>1 Vrai</td>
</tr>
<tr>
<td>Autre</td>
<td>0 Faux</td>
<td>1 Vrai</td>
</tr>
<tr>
<td>Autre</td>
<td>0 Faux</td>
<td>1 Vrai</td>
</tr>
<tr>
<td>Aucune</td>
<td>0 Faux</td>
<td>1 Vrai</td>
</tr>
<tr>
<td>Ne sait pas</td>
<td>0 Faux</td>
<td>1 Vrai</td>
</tr>
</tbody>
</table>

05. Quelles autres pratiques utilisez-vous sur les terres sur lesquelles vous faites pousser des cultures EXCLUANT le coton, pour améliorer la fertilité des sols ? Sélectionnez toutes les réponses applicables.

| Gestion des résidus / paillage (fumier vert) | 0 Faux | 1 Vrai |
| Fumier animal | 0 Faux | 1 Vrai |
| Engrais NPK | 0 Faux | 1 Vrai |
| Urée | 0 Faux | 1 Vrai |
| Engrais foliaires | 0 Faux | 1 Vrai |
| Application de chaux | 0 Faux | 1 Vrai |
| Toute forme de travail minimum du sol | 0 Faux | 1 Vrai |
| Le labourage des contours | 0 Faux | 1 Vrai |
| Murs d’érosion (autour ou à l’intérieur de la parcelle) | 0 Faux | 1 Vrai |
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<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Survey Question (French)</th>
<th>Reply Options (French)</th>
</tr>
</thead>
<tbody>
<tr>
<td>weed</td>
<td>01. Comment avez-vous géré la majorité de votre contrôle des mauvaises herbes?</td>
<td>1 Seulement manuel 2 Seulement mécanique 3 Herbicides 4 Combinaison des éléments ci-dessus 5 Pas de sarclage réalisé 8888 Ne sait pas 9999 Refusé</td>
</tr>
<tr>
<td>firstweeding</td>
<td>02. Combien de jours après la levée des plantes, avez-vous COMMENCE votre sarclage dans votre plus grand champs?</td>
<td>numeric</td>
</tr>
<tr>
<td>completeweeding</td>
<td>03. Combien de jours après la levée des plantes, avez-vous terminé votre sarclage ?</td>
<td>numeric</td>
</tr>
<tr>
<td>weedingtypeadvice</td>
<td>04. Qu’est-ce qui vous a aidé à décider du TYPE de sarclage à utiliser ?</td>
<td>1 Ma propre expérience 2 Conseils d’un-e autre agriculteur-rice / de ma famille 3 Conseils des C/As ou chefs de l’OPA 4 Je l’ai appris en formation 5 Autres 8888 Ne sait pas 9999 Refusé</td>
</tr>
<tr>
<td>weedingtimeadvice</td>
<td>05. Qu’est-ce qui vous a aidé à décider QUAND sarcler ?</td>
<td>1 Ma propre expérience 2 Conseils d’un-e autre agriculteur-rice / de ma famille 3 Conseils des C/As ou chefs de l’OPA 4 Je l’ai appris en formation</td>
</tr>
<tr>
<td>Variable Name</td>
<td>Survey Question (French)</td>
<td>Reply Options (French)</td>
</tr>
<tr>
<td>------------------------</td>
<td>------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>scouttrain</td>
<td>01. Avez-vous reçu une formation sur le dépistage à l'aide de « pegboards » ou de cahiers</td>
<td>1 Oui 2 Non 8888 Ne sait pas 9999 Refusé</td>
</tr>
<tr>
<td></td>
<td>durant les cinq dernières campagnes agricoles ?</td>
<td></td>
</tr>
<tr>
<td>spraytrain</td>
<td>02. Avez-vous reçu une formation sur le traitement sur seuil durant les cinq dernières</td>
<td>1 Oui 2 Non 8888 Ne sait pas 9999 Refusé</td>
</tr>
<tr>
<td></td>
<td>campagnes agricoles ?</td>
<td></td>
</tr>
<tr>
<td>intervals</td>
<td>03. Quand est-ce que vous appliquez les pesticides ?</td>
<td>1 Intervalles réguliers 2 Seulement lorsque le</td>
</tr>
<tr>
<td></td>
<td></td>
<td>seuil est dépassé 3 Les deux (quelques traitements à intervalle régulier et quelques</td>
</tr>
<tr>
<td></td>
<td></td>
<td>seulement après le seuil était dépassé)</td>
</tr>
<tr>
<td>scounttimestotal</td>
<td>04.1 Si vous utilisez l’observation, combien de fois avez-vous fait l’observation cette</td>
<td>numeric</td>
</tr>
<tr>
<td></td>
<td>campagne agricole (2020-2021) ?</td>
<td></td>
</tr>
</tbody>
</table>
### Annex Case Study: Research on impacts of the CmiA initiative on livelihoods of small-holder farmers in sub-Saharan Africa

<table>
<thead>
<tr>
<th>Scouttimes</th>
<th>04. Si vous utilisez l'observation, combien de fois avez-vous utilisé l'observation avec l'ardoise cette campagne agricole (2020-2021) ?</th>
<th>numeric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preharvestscout</td>
<td>05. Combien de fois après l'observation à l'aide de l'ardoise avez-vous décidé de pulvériser par suite que le seuil était dépassé durant cette campagne agricole (2020-2021) ?</td>
<td>numeric</td>
</tr>
<tr>
<td>Spray</td>
<td>06. Combien de fois avez-vous pulvérisé cette campagne agricole (2020-2021) sans utiliser l'observation à l'aide de l'ardoise ?</td>
<td>numeric</td>
</tr>
<tr>
<td>Supply_Cotton_Company</td>
<td>07. Où avez-vous obtenu vos pesticides utilisés dans votre champ de coton durant la campagne agricole actuelle (2020-2021) ? Sélectionnez toutes les réponses applicables.</td>
<td>Société cotonnière 0 Faux 1 Vrai  Fournisseur d'intrants 0 Faux 1 Vrai  Marché local 0 Faux 1 Vrai  Magasin d'agroalimentaire 0 Faux 1 Vrai  Reste de l'année dernière 0 Faux 1 Vrai  Autre 0 Faux 1 Vrai  Ne sait pas 0 Faux 1 Vrai  Refusé 0 Faux 1 Vrai</td>
</tr>
<tr>
<td>Clothing_NONE1</td>
<td>08. Quel vêtement protecteur la personne qui pulvérise porte-t-elle lors des pulvérisations ? Sélectionnez toutes les réponses applicables.</td>
<td>Chemise à manche longue 0 Faux 1 Vrai  Long pantalon 0 Faux 1 Vrai  Chaussures fermées/botte 0 Faux 1 Vrai  Salopette 0 Faux 1 Vrai  Lunettes de protection 0 Faux 1 Vrai  Masque buccal 0 Faux 1 Vrai  Gants 0 Faux 1 Vrai  Autre 0 Faux 1 Vrai  Ne sait pas 0 Faux 1 Vrai</td>
</tr>
<tr>
<td>clothing_REFUSED1</td>
<td>Refusé 0 Faux 1 Vrai</td>
<td></td>
</tr>
<tr>
<td>------------------------------</td>
<td>----------------------</td>
<td></td>
</tr>
<tr>
<td>womenspray</td>
<td>09. Est-ce qu'une personne féminine de ce ménage, a pulvérisé le coton durant les 12 derniers mois ? 1 Oui 2 Non 8888 Ne sait pas 9999 Refusé</td>
<td></td>
</tr>
<tr>
<td>under18spray</td>
<td>10. Est ce que quelqu'un de ce ménage ayant un âge en dessous de 18 ans a pulvérisé le coton durant les 12 derniers mois ? 1 Oui 2 Non 8888 Ne sait pas 9999 Refusé</td>
<td></td>
</tr>
<tr>
<td>negativehealth</td>
<td>11. La personne qui a pulvérisé, a-t-elle-il connu quelques effets négatifs sur la santé après l'application des pesticides ou herbicides ? 1 Oui 2 Non 8888 Ne sait pas 9999 Refusé</td>
<td></td>
</tr>
<tr>
<td>negativehealthe_HEADACHES_OR_MEM</td>
<td>Maux de tête ou problèmes de mémoires 0 Faux 1 Vrai</td>
<td></td>
</tr>
<tr>
<td>negativehealthe_SKIN_RASH_OR_IRR</td>
<td>Éruption ou irritation cutanée 0 Faux 1 Vrai</td>
<td></td>
</tr>
<tr>
<td>negativehealthe_BREATHING_PROBLE</td>
<td>Problèmes de respiration 0 Faux 1 Vrai</td>
<td></td>
</tr>
<tr>
<td>negativehealthe_EYE_OR_VISION_PR</td>
<td>Problèmes de la vision ou des yeux 0 Faux 1 Vrai</td>
<td></td>
</tr>
<tr>
<td>negativehealthe_JOINT_OR_MUSCLE_</td>
<td>Douleurs articulaires ou musculaires 0 Faux 1 Vrai</td>
<td></td>
</tr>
<tr>
<td>negativehealthe_NAUSEA_OR_DIGESI</td>
<td>Problèmes digestifs ou nausée 0 Faux 1 Vrai</td>
<td></td>
</tr>
<tr>
<td>negativehealthe_REPRODUCTIVE_PRO</td>
<td>Problèmes de reproduction 0 Faux 1 Vrai</td>
<td></td>
</tr>
<tr>
<td>negativehealthe_DIZZINESS</td>
<td>Vertige 0 Faux 1 Vrai</td>
<td></td>
</tr>
<tr>
<td>negativehealthe_OTHER_1</td>
<td>Autre 0 Faux 1 Vrai</td>
<td></td>
</tr>
<tr>
<td>negativehealthe_DON_T_KNOW</td>
<td>Ne sait pas 0 Faux 1 Vrai</td>
<td></td>
</tr>
<tr>
<td>negativehealthe_REFUSED1</td>
<td>12. Quels effets négatifs sur la santé, la personne qui a pulvérisé a-t-elle-il connu ? Sélectionnez toutes les réponses applicables. Refusé 0 Faux 1 Vrai</td>
<td></td>
</tr>
<tr>
<td>store_IN_MY_HOUSE</td>
<td>13. Où stockez-vous les pesticides et/ou les herbicides utilisés dans votre champ de coton cette campagne agricole (2020-2021) ? Sélectionnez toutes les réponses applicables. Dans ma maison 0 Faux 1 Vrai</td>
<td></td>
</tr>
<tr>
<td>store_IN_A_SHED_WITH_DOOR</td>
<td>Dans un abri avec porte 0 Faux 1 Vrai</td>
<td></td>
</tr>
<tr>
<td>store_IN_AN_OPEN_SHED</td>
<td>Dans un abri sans porte</td>
<td>0 Faux</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>store_OUTSIDE</td>
<td>À l’extérieur</td>
<td>0 Faux</td>
</tr>
<tr>
<td>store_I_DON_T_STORE__SPRAYING_PR</td>
<td>Je ne stocke pas de produits de pulvérisation</td>
<td>0 Faux</td>
</tr>
<tr>
<td>store_OTHER_1</td>
<td>Autre</td>
<td>0 Faux</td>
</tr>
<tr>
<td>store_DON_T_KNOW</td>
<td>Ne sait pas</td>
<td>0 Faux</td>
</tr>
<tr>
<td>store_REFUSED1</td>
<td>Refusé</td>
<td>0 Faux</td>
</tr>
<tr>
<td>store_SERVICE_PROVIDER KEPT_CHEM</td>
<td>Produits gardés par fournisseur d'intrants</td>
<td>0 Faux</td>
</tr>
</tbody>
</table>

| bollworm              | 14. Combien de fois avez-vous appliqué des produits chimiques BOLLWORM/STAINER ? | numeric |
| aphid                 | 15. Combien de fois avez-vous appliqué des produits chimiques APHID sur vos plantes de coton au cours de la dernière campagne agricole (2012-2013) ? | numeric |
| bwbottle              | 16. Combien de bouteilles de produits chimiques BOLLWORM/STAINER avez-vous utilisées au total ? | numeric |
| bwbottlem             | 17. Combien de ml y a-t-il dans une bouteille de produit chimique BOLLWORM/STAINER ? | numeric |
| bwsachet              | 18. Combien de sachets de produits chimiques BOLLWORM/STAINER avez-vous utilisés au total ? | numeric |
| bwsachetg             | 19. Combien de grammes y a-t-il dans un sachet de produits chimiques BOLLWORM/STAINER ? | numeric |
| apbottle              | 20. Combien de bouteilles de produits chimiques APHID avez-vous utilisées au total ? | numeric |
| apbottlem             | 21. Combien de ml y a-t-il dans une bouteille de produit chimique APHID ? | numeric |
| apsachet              | 22. Combien de sachets de produits chimiques APHID avez-vous utilisés au total ? | numeric |
| apsachetg             | 23. Combien de grammes y a-t-il dans un sachet de produit chimique APHID ? | numeric |
6 Conclusion

Remerciez l'agriculteur-rice d'avoir réalisé l'entretien.
Expliquez à l'agriculteur-rice que nous traiterons ses informations avec soin.
Appuyez sur le bouton "Terminer".
AID BY TRADE FOUNDATION

The Aid by Trade Foundation (AbTF) was founded in 2005 by Prof. Dr. Michael Otto, an entrepreneur from Hamburg, Germany. The aim of the foundation, which operates independently of the Otto Group, is to help people to help themselves through trade, thereby preserving vital natural resources and securing the livelihoods of future generations.

With the Cotton made in Africa (CmiA) initiative, AbTF is putting its principles into practice. The trade partners of the CmiA Demand Alliance source African cotton produced according to the CmiA standard and pay the foundation a volume-based license fee that is reinvested in the cultivation areas. Consumers recognise products by the CmiA label and make a valuable contribution to protecting the environment and supporting smallholder farmers and their families in Africa.

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E-Mail: info@abt-foundation.org

www.cottonmadeinafrica.org