

CCE

Certification Capacity Enhancement

**Follow-up study report on
CCE pilot cocoa certification initiatives
In Ghana, Côte d'Ivoire and Nigeria**



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List of abbreviations

CCE	Certification Capacity Enhancement
CFA	West African CFA Franc
CRIN	Cocoa Research Institute of Nigeria
FADU	Farmers Development Union
FCA	Farmers Credit Association
FCS	Farmers Credit Society
FFS	Farmer field school
GAP	Good Agricultural Practice
GHS	Ghana Cedi
GPS	Global Positioning System
IMS	Internal Management system
IITA	International Institute of Tropical Agriculture
M&E	Monitoring and Evaluation
NGN	Nigerian Naira
NGO	Non-Governmental Organization
PC	Purchasing Clerk
PPP	Public Private Partnership
PR	<i>producteur relais</i> (lead farmer)
RA	Rainforest Alliance
STCP	Sustainable Tree Crop Programme

Currency exchange rates (October 2013)

1 Ghana Cedi (GHS) = 0.37 €

1000 West African CFA francs (XOF) = 1.52 €

1000 Naira (NGN) = 4.76 €

Executive summary

The CCE (Certification Capacity Enhancement) project is a multi-stakeholder initiative between the development agencies GIZ, the Dutch Sustainable Trade Initiative (IDH), Solidaridad, the voluntary standards organizations Fairtrade International (FLO), Rainforest Alliance and UTZ Certified, and a number of private cocoa industry companies (Archer Daniels Midland, Armajaro, Mars, Mondelez -previously Kraft Foods, Toms, and Continaf). Its main results have been the conception of a common curriculum and the development of training capacities for certification of cocoa producers in Ghana, Côte d'Ivoire and Nigeria to the three sustainability standards Fairtrade, Rainforest Alliance and Utz Certified.

Five pilot groups were designated in the three partnering countries to enable a baseline for future livelihood assessments. The baseline studies were carried out in five certification initiatives (three in Côte d'Ivoire promoted by Cargill, Olam and ADM, respectively; one in Ghana, promoted by Armajaro; and the Kokodola project in Nigeria implemented by Continaf) between September 2012 and March 2013. The studies evaluated current agricultural practice and farm management as well as local perceptions of livelihoods both on individual and community level in relation to the CCE training package. Standardized questionnaires were complemented by key informant and group interviews.

In March 2013 CCE was integrated into the German Initiative on Sustainable Cocoa (GISCO), an alliance of the German Federal Government, the German cocoa, chocolate and confectionary industry, retail grocery trade, NGOs and sustainability standards systems. The German Federal Ministry of Food and Agriculture (BMEL) financed the follow-up study presented in this report. The monitoring concerned the pilot sites that had been visited during the first study in September-October 2012 (Armajaro in Ghana, Cargill in Côte d'Ivoire, Continaf in Nigeria).

One major finding is that training participants have increased their knowledge about good agricultural, social and environmental practices and have become certifiable. For practical reasons, interviews with producers could not take place on the farm so that the adoption of practices could not be assessed systematically. More than 93% and 95% of the farmers have been certified to the UTZ standard in the Continaf project, and to the UTZ and Rainforest Alliance standards in the Cargill group, respectively. Despite an early start of the Ghana group in December 2011, an audit has yet to take place in the Armajaro project and may not concern any of the three standards but be based on another verification system.

The positive changes most often quoted by farmers are:

- A better understanding of the concept of pruning
- A better handling and more targeted use of agrochemicals; among Nigeria farmers, this had led to a notable reduction in sprayings
- More investments into weeding, partly due to the elimination of herbicides
- Tree replacements and cocoa farm expansion
- In Nigeria, the respect of recommended fermentation techniques (in Côte d'Ivoire and more so in Ghana, bean quality improvements are less relevant)

The CCE training in the Cargill and Continaf pilot groups is carried out in "farmer field schools" (FFS). However, this term simply refers to a location in a conveniently located cocoa field, where practical skills were demonstrated. Contents and methods are those of the CCE training curriculum. No other training materials or sources have been used in any of the initiatives.

Modules and topics of the CCE curriculum have been used flexibly. The duration of farmers' training programme was 4-5 months in Ghana and Côte d'Ivoire. Training stopped prior to internal inspections and was not continued during the main crop (October-January). The FFS in the

Continaf project had the highest frequency. The average individual rate of attendance was 5/?¹, 9/12 and 14/24 for the first year training in Ghana, Côte d'Ivoire and Nigeria, respectively. There is at present no monitoring of attendance rates of individual participants within the IMS.

Training implementation has been weakest in the Armajaro pilot, partly owed to the inadequacy of its trainer selection. Farmer trainers had been recruited among the company's purchasing clerks, with mixed results. The project is now increasingly working with lead farmers, but has difficulties with motivating them as no clear perspectives have been communicated to them. The ToT of the farmer trainers was the shortest of the three pilots (3 days).

The two other pilots rely on lead farmers for farmer training and internal inspections, but only in the Cargill group (four trainers at present) they are paid a regular salary.

Female trainers are strongly underrepresented (Armajaro: 2 of 60; Cargill: 0 of 4; Continaf: 4/117). Developing an appropriate incentive package will be a challenge anywhere. Lead farmers generate significant benefits for their fellow farmers and buyers alike. Whether they need to be compensated will depend on the strategy of the certification promoter. Financial compensation may be appropriate if a long-term, performance-based capacity-building strategy is pursued. If the training programme is to be reduced after two or three seasons, the issue will prove less relevant.

For many farmers, the certification training is the first structured training input they have ever received. Not surprisingly, the training has achieved some immediate results in terms of good agricultural practice and an increase in productivity is likely to be one of the direct positive outcomes.

However, we found that training could be more responsive to the particular needs of some of the participants. All are lumped together in one big group, irrespective of educational level and experience. In Côte d'Ivoire, women found it more difficult to participate than men when meeting hours conflicted with household chores.

Many participants are elderly, uneducated men - a result of the selection logic (farm owners, cooperative members). Some are too weak or ill for regular farm work so they have to disseminate their knowledge to their workers, sharecroppers or other family members. In terms of training effectiveness, it seems beneficial to integrate those who actually do the job on the farm into the training.

When asked about the benefits they derive from their participation in the training programme, most farmers pointed out strengthened knowledge (centred around good agricultural practices), plus the boost to self-confidence that comes with it, and the productivity gains and higher income they expect from the adoption of key practices like pruning, weeding and targeted pest control. Only the Nigerian farmers focused on premium payments.

Only a minority of farmers made explicit reference to health, environmental or social benefits.

One of the social benefits is the farmer-to-farmer diffusion of improved practices. Participants declared to be very active in sharing their insights and skills not only inside the group but also with neighbours. A conclusive number of training participants pointed out that communication and social cohesion inside the group has improved. In the Côte d'Ivoire cooperative, this has led to a revival of the tradition of labour sharing (*entraide*) in some locations.

Accompanying measures for improving productivity via input supply (credit) have been implemented hesitatingly.

The distribution of high-yielding cocoa seedlings has yet to start (Ghana, Côte d'Ivoire) or has been on a small scale so far (Nigeria).

An input supply scheme based on small solidarity groups has been proposed this year to the Armajaro farmers, but too late in the season and was not taken up by farmers; moreover, it suffered from unfair competition by cheaper black market products.

Even in the Nigerian communities, where a rural credit union is co-implementing the project, group loans have been envisioned only for the third year of operation, in 2014, in an admittedly challenging environment. In 2012, many of the Nigerian farmers have defaulted on pesticide inputs.

¹Highly variable number of training days

Fertilizer use has gained a foothold only among the Ghanaian farmers. Its use is virtually absent in Côte d'Ivoire and Nigeria, where chemical fertilizer is not subsidized. Moreover, old farms and limited genetic potential of cocoa trees make appear such investments unpromising.

The cocoa farmers have yet to take the second step to professionalization by giving more attention to record keeping. Both the Armajaro and the Continaf project have handed out record books to farmers. These diaries enable farmers to keep track of most farm operations such as labour and other inputs, farm maintenance, tree planting, Integrated Pest Management, maintenance of equipment, inspections, training attendance and sales records.

It is regrettable that they are hardly used except for sales documentation, and the booklets most often stay with the buying agents as "safekeepers". Illiteracy is commonly quoted, both by trainers and farmers themselves, as the main obstacle to its use. This is unconvincing as the conception and distribution of such farm management tools should include the necessary capacity-building.

It would certainly be possible to put more emphasis on record-keeping with practical exercises during the second year CCE training. In some communities of the Côte d'Ivoire cooperative, adult literacy and numeracy classes have been initiated by local teachers. Unfortunately, there are no farm diaries in the Cargill pilot.

Ironically, we found that the CCE trainings have not succeeded in imparting basic knowledge about certification itself. Both individual interviews and group discussions revealed that for the vast majority of farmers, the certification process remains a closed book.

The observations in this respect are very similar for the three countries:

- The average farmer does not know that there is a management and documentation system in place led by a group administrator;
- It is not common knowledge that it is not the individual farmer but the group who is certified; and that there is a formal inspection procedure processed by an "elected" approval & sanction committee;
- The average farmer does not know "UTZ" or "Rainforest Alliance" (neither the name nor the logo);
- Farmers insist that the adoption of good practices helps their farm operations "to produce more and better cocoa", but they struggle with an understanding that it is only the successful certification which makes participants eligible to a premium payment;
- The role and responsibilities of group administrators, inspectors, external auditors and standard owners is only known to a small elite of producers (basically the lead farmers i.e. the trainers).
- Farmer-to-farmer exchange works for basic farm practices, but not for more complex issues. Process knowledge from already certified farmer groups has not trickled down to newcomers.

From a purely pragmatic view, this may have little relevance in the short-term, and farmers' interest in the bigger picture is arguably limited at present. However, it seems hard to imagine farmers' commitment to the sustainability cause if a sense of ownership in the process is totally absent. Currently, farmers are given the impression that certification is just another market requirement.

Effective communication with farming communities is a challenge in all three projects, for different reasons.

Purchasing clerks in Ghana and the "delegates" in the Ivorian cooperative have undergone a role shift from buying agents to trainers or intermediaries with significantly higher requirements on their communication and facilitation skills.

In Ghana, Licensed Buying Companies compete for clients by handing out subsidized inputs, bonuses and upfront premiums which entertain a short-term opportunism among farmers. The Armajaro/SourceTrust approach of area-based traceability (funding of social and infrastructure projects like boreholes or "village resource centres") raises expectations in communities that are likely to be disappointed. They perpetuate an asymmetrical relationship between a buyer-patron-donor and a "needy" farming population lacking adequate rural infrastructure and social services.

Cargill has not yet supported the contracted cooperative in its organizational development. The cooperative continues to function like a private enterprise, not like a member-based organisation. Inter-ethnic tensions and a legacy of low trust in cooperative leaders are an impediment to the development of a more stable organizational foundation for certification.

The fully liberalized marketing system in Nigeria is a challenge for the Kokodola project in Nigeria. Despite its presence on the ground through its partners' local saving groups, many farmers choose to sell to competing small traders. Two of the five communities also experienced problems with the buyers that they had appointed. Many farmers have also defaulted on input credit for agrochemicals. Many farmers are dependent on money lenders. The savings groups are yet to be effective to help farmers out of the debt trap.

The CCE curriculum has clearly delimited objectives, which are building the capacity for certification against a set of externally defined rules in the agricultural, social and environmental domain and to improve productivity. However, in public relations, promoters of certification very often make reference to the impact of training and certification on improved livelihoods. CCE has developed an M&E system with a simple causal model and indicators to test the assumption.

Three aspects related to sustainable livelihoods should be highlighted:

GAP training has fuelled farmers' optimism about the future of their cocoa farming despite all structural constraints. The ever increasing need for cash pushes farmers to encroach on food crops and incrementally expand their cocoa farms. This trend toward reduced agricultural diversification and growing dependency on cocoa is particularly pronounced in the Côte d'Ivoire pilot (where already an estimated 85% of cash income is derived from cocoa).

This is particularly detrimental to women who have hardly ownership of land and who therefore rarely access membership in the cooperative. Widows do usually have small plots of cocoa, but have an even higher workload and face higher costs for farm labour. In general, women rely on food crops for their own earnings and have seldom off-farm income sources. In addition, women are rarely the money keepers and basically depend on the goodwill of their husbands.

Food crops are largely neglected despite the existence of state extension systems in all three countries. We have not seen any effective support in terms of training or input supply in any of the three locations.

Financial management skills should not be disregarded in any sustainable capacity-building programme, possibly preceded by adult literacy and numeracy courses. Higher income should go along with more awareness about how to spend and invest. The Cocoa Livelihoods Program's Farmer Business School materials are a widely recommended approach developed for cocoa farming households. Simple crop budgets and other basic calculations are introduced to producers, including illiterate participants. Importantly, other crops are also taken into consideration.

Changes in livelihoods will only be transformational if the structural overreliance on cocoa income, the subordinate role of women and the "black box" of household finance, just to name these three aspects, are addressed. This could happen through the second year/refresher training within the institutions that have been created. The Nigerian communities have set up savings groups most of which work well. The cooperative in Côte d'Ivoire has created various development committees. In the Armajaro pilot, small solidarity groups for input credit could be an entry point. Certainly, this will require cooperation with external agencies.

In the current business model of fast tracking certification, there seems however little room for such investments.

The degree of collaboration between partners in monitoring and evaluation has been a disappointment.

The pilots were supposed to be a precompetitive arena for sharing lessons about training approaches and to lay the foundation of future impact assessments.

However, information about the pilot groups has been limited to a number of short-term studies (five baselines in five pilot groups, followed by three present follow-up visits presented here) of less than one week each. None of the promoting companies has provided any own information from their documentation systems.

A number of short-term studies cannot make up for regular monitoring on site. Time is short, the sample is small (and decreasing because some individuals have dropped out or are absent), and many items such as yields are difficult to ascertain within a verbal interview. The resources spent on researching basic agricultural practices meant that much time was lost for the actual purpose of focusing on livelihoods research (extending to issues of farming systems, social relationships, education and health). This constraint has been no different for the follow-up study as a lot of time was invested in inquiring training implementation and training effectiveness for the reason that Solidaridad has not been involved in training backstopping in the field, and experiences from other certification initiatives have not been documented systematically so far. After all, there seems to be very little structured information on experiences with the CCE materials on farmer level.

Although requirements and conditions for CCE pilot trainings had been elaborated, the purpose of the “pilots” remains unclear especially in the case of Armajaro and Cargill, as no data have been collected and analyzed internally and it seems the CCE requirements had been ignored during the implementation of the pilot. There seem to be no expectations with regard to any relevant lessons for a “roll-out” (which is ongoing on a large scale, anyway). It would nevertheless have been relatively straightforward to make use of the record books of farmers, and it is theoretically even possible to calculate net income from cocoa from these records. This would be most appropriate, as farmers do invest more in labour than before.

Tab. 1. The current situation with regard to the baseline indicators is as follows

Baseline indicator	Remarks
At least 75 % (first year, 90% in the second year) of trained producers (men and women) produce according to the sustainability standards and have been certified upon first inspection	No data from companies. Beyond 90% in the first year in the Cargill and Continaf groups. No external audit in the other groups yet.
The replacement rate of old unproductive trees increases by X % annually on certified farms.	No data from companies. No suggestions about the rate. Negligible in the Armajaro group, 6% in the Cargill group, 2% in the Continaf project (2013).
Average yields (t/ha/y) on certified farms increase by 20%/year during the first 3 years after the training	No data from companies. Second year yield data (2012-13) only available from the Cargill pilot (n = 14; 327 kg/ha, an increase of 14%, but results are not reliable).
The percentage of grade 1/2 beans is X% higher in certified beans as compared to a baseline taken before the training	No data from companies. No suggestions about the rate. Not inquired in the baseline studies.
The trend in producers' perceptions of their livelihoods is increasingly positive (to be defined)	This was inquired quantitatively through trend analysis in several groups in all pilot groups (see baseline study). To be followed up in 1-2 years. In individual interviews, it was narrowed down to “How will the situation for your cocoa farming change in the future?” More than 80% of respondents in all 5 pilot groups expected (big) improvements. In retrospect, the positive outlook was confirmed fully in the three follow-up studies.
At least 50% of the organized curriculum training against one or more standards is based on the active request by farming communities.	None (0%) of the training projects have been initiated by farmers, but by companies and cooperative leaders
At least 90% of the production is sold through the certification channel.	No data from companies. 100% (Armajaro), 95% (Cargill), 32% (Continaf), 2012-2013 data.

Introduction

The CCE (Certification Capacity Enhancement) project is a multi-stakeholder initiative between the development agencies GIZ, the Dutch Sustainable Trade Initiative (IDH), Solidaridad, the voluntary standards organizations Fairtrade International (FLO), Rainforest Alliance and UTZ Certified, and a number of private cocoa industry companies (Archer Daniels Midland, Amajaro, Mars, Mondelez (previously Kraft Foods), Toms, and Continaf). CCE developed a common curriculum and training capacities for the three sustainability standards Fairtrade, Rainforest Alliance and UTZ Certified for certification of cocoa in Ghana, Côte d'Ivoire and Nigeria.

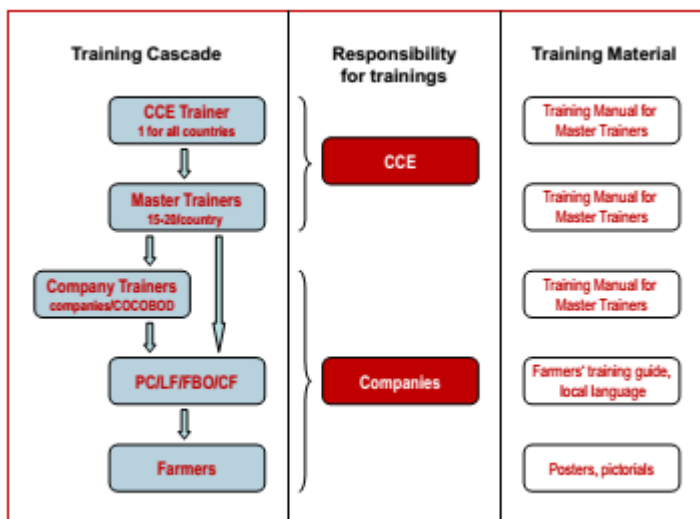
During the second phase of CCE, which terminated in February 2013, pilot groups were set up in the three countries with the intention to test the curriculum and to set a baseline for future livelihood assessments. The certification training for farmers covers not only compliance requirements for a set of social and environmental criteria, but also good agricultural practice and post-harvest operations in order to improve productivity and bean quality. In addition, a training guide for the set-up of the Internal Management System for group certification was developed.

In March 2013 CCE has been integrated into the German Initiative on Sustainable Cocoa (GISCO), an alliance of the German Federal Government, the German cocoa, chocolate and confectionary industry, retail grocery trade, NGOs and sustainability standards systems. The aims of GISCO are to promote sustainable cocoa production and to coordinate existing initiatives.

The rationale to develop a common curriculum for the three most relevant standards is to reduce the transaction costs for farmers and promoters when dealing with multiple certifications. By improving the access to higher-value markets and addressing not only social and environmental criteria, but also economic viability, the idea is that the training will contribute to increased sustainability of cocoa farming and ultimately, improved livelihoods of smallholder communities.

The training cascade has two tiers, with Master Trainers recruited from extension organizations, private companies and NGOs on national level, and trainers on local level, typically lead farmers or extension agents who train the cocoa producers.

Fig.1. Training cascade of CCE (from the 4th CCE Technical Committee Meeting report)



Solidaridad had been contracted for the implementation of the master training. The Solidaridad trainers are also contracted for training on company level and have a backstopping role on demand.

An M&E concept has been developed by CCE with the aim to monitor progress of implementation and to assess the effectiveness of the training materials and the long-term impact on producers' livelihoods. A simple causal model was elaborated from the project's logframe and other documentation. The model links the project's actions to the intended results (cf. annex 1). Five quantitative indicators have been identified to serve as a baseline for future impact monitoring (cf. annex 2): replacement rates of old trees (a productivity measure), yield increase, quality improvements and sustainable marketing. The data for these indicators are supposed to be collated and shared by participating companies and extension agencies.

In order to deal with the highly aggregated goal of "improved living conditions for cocoa farming communities (net investments into livelihoods and more sustainable agricultural, social and environmental practices)", separate baseline studies were carried out in five communities in the period from September 2012 to March 2013. These groups are:

- Cocoa farming communities in Sefwi Wiawso cocoa district in Western Region, Ghana (promoted by Armajaro)
- CAADI cooperative, Diegonéfla *sous-préfecture*, Djiboua Region, Côte d'Ivoire (promoted by Cargill²)
- CAFUG cooperative, Gao *sous-préfecture*, Bas-Sassandra Region, Côte d'Ivoire (promoted by Outspan)
- EFFE cooperative, Andé *sous-préfecture*, Bongouanou Region, Côte d'Ivoire (promoted by ADM)
- Cocoa farming communities participating in the Kokodola project, Osun state, Nigeria (promoted by Continaf).

The studies evaluated current agricultural practice and farm management as well as local perceptions of livelihoods both on individual and community level in relation to the CCE training package. Standardized questionnaires were complemented by key informant and group interviews in order to obtain a reference point for future impact assessments of livelihood outcomes.

The initial baseline studies³ provided evidence that the participants in the CCE training programme benefit from the training by upgrading their knowledge about sustainable practices and basic techniques to improve productivity and quality. However, low literacy and professionalism of farmers, a timid rejuvenation of stock and limited access to input credit for intensification of operations constrain the development of cocoa farms. A lack of diversification of income generating activities and the discrimination against women in terms of land ownership, access to cooperative membership and participation in training was also signalled, in particular in Côte d'Ivoire.

The tasks of the present follow-up study were to provide information on the implementation of the training package and its direct outcomes in terms of learning results and adoption of key practices. Given the absence of productivity data from CCE partners, rough estimates of yields and income are attempted.

It was too early to monitor longer-term outcomes (impact) in the cocoa communities, but effects beyond farmers' compliance with standards were explored, such as the overall perception of certification, the trend toward professionalization (record keeping, financial management), and changes in social relationships, also with regard to the role of women.

²Cargill and Outspan (Olam) are not official CCE partners but have volunteered to test the curriculum.

³Frank Kuklinski. Baseline study report on cocoa producers' livelihood perceptions in five pilot areas in Ghana, Côte d'Ivoire and Nigeria. February 2013

Methods

The follow-up study was carried out for the Sefwi Wiawso (Western region, Ghana – Armajaro pilot group), Diegonéfla (cooperative CAADI in south central Côte d'Ivoire – Cargill pilot group) and the Kokodola project communities in Osun state, Nigeria (Continaf pilot group) which had been surveyed in September-October 2012.

Questionnaires were prepared for individual interviews with farmers. These persons were sampled from the group of participants that had been interviewed previously. This proved a great advantage as personal background information was already available and the interview could focus on relevant changes that had occurred in the meantime. Given the small sample size, it also had the advantage that changes could be triangulated better because the reference point was not a statistical average, but the same individual farmer.

Questions made reference to:

- Changes in farm practices
- Access to credit and use of inputs
- Yields
- Acquired knowledge, in particular about certification, standards and important issues such as pesticide use, blackpod control, tree replacement, or child labour
- Marketing channels
- The organisational structure farmers belong to (the cooperative, the farmer field school, or the savings association)
- Perceptions of overall changes in farmers' environment

Group interviews were conducted in various configurations with participating farmers, both men and women, including sometimes non-participating members of the communities.

Some case studies are presented as they illustrate relevant opportunities and challenges for the programme.

Key informant interviews were conducted with lead farmers, IMS members, and managing staff of the companies.

Table 2 gives a summary of the implementation of the study.

Tab.2. Details of interviews in three countries

	Ghana	Côte d'Ivoire	Nigeria
Period	20 th – 28 th Oct. 2013	28 th Oct. – 5 th Nov. 2013	5 th – 13 th Nov. 2013
Effective work days in the communities	5	6	6
Situation of communities	Sefwi Wiawso cocoa district. 15 communities. 500 participants in the pilot phase. Upscaling to 30 communities and 1,000 farmers in 2013. Sell cocoa to Armajaro. Second round of CCE farmer training finished this year.	Cooperative CAADI, Diegonéfla <i>sous-préfecture</i> ; 9 sections covering one to several villages and hamlets. 251 training participants in the pilot phase. Sell cocoa to Cargill. First external audit in September 2013.	5 farmer field schools in Osun State. The participants are registered members of Farmers Development Union (FADU) who have signed up for the Kokodola project. Cocoa sold to Continaf. Second year of training accomplished. 1661 farmers certified in 2012.

	Ghana	Côte d'Ivoire	Nigeria
Details of individual interviews	38 individual interviews with farmers in Twi language from 6 communities (9 in Amafie, 8 in Dwenase, 8 in Domeabra, 6 in Anwiam, 4 in Asiakrom, 3 in Kramokrom A)	31 interviews with farmers from 5 sections (8 in Diegonéfla, 8 in N'Drikro, 6 in Gnandi, 7 in Lahouda and 2 in Bronda)	46 interviews with farmers from 5 communities (10 in Ayepe, 8 in Alagbonrin, 9 in Ologan, 7 in Ayegunle and 12 in Iloba)
Other interviews	15 purchasing clerks and lead farmers at Armajaro's office; a mixed group of 22 training participants and a group of 12 female training participants in Asiakrom; a mixed group of 17 training and non-participants in Aboboyaa; a mixed group of 9 training participants in Dwenase; two case studies; interview with the Sustainability Programme Manager Olga Gormalova (Armajaro)	CAADI board members, the IMS administrator and the 4 lead farmers; a group of 10 women and of 16 training participants in N'drikro; 16 training and non-participants in Gnandi; 18 training and non-participants in Bronda; around 30 community members in Boessovoda; two case studies	Continaf, FADU and IMS managers, and the documentation officer at FADU headquarters in Ibadan; a mixed group of 12 participating farmers in Ologan; a mixed group of 15 participants in Alagbonrin; a group of 16 male farmers, a group of 5 women and a local buying agent in Ayepe; a group of 12 participating male farmers in Ayegunle; a mixed group of around 25 participants in Iloba
Collaborators of the author	1 national facilitator, 2 national interviewers	2 national interviewers	1 national facilitator, 2 national interviewers

Results

Ghana

Armajaro has been using the CCE materials since 2011. The master and company trainers of Armajaro have trained 1,900 second-tier trainers (purchasing clerks, lead farmers) in Ghana so far. Approximately 40,000 farmers in Ghana have been trained with the CCE package.

Armajaro guarantees traceability of the cocoa sold to international customers. The territorial approach enables the company to communicate about development achievements for given intervention areas, as is the case of the Sefwi Wiawso project cocoa. Source Trust, a not-for-profit organisation set up by the company, funded partly by cocoa premium payments and public funds, implements the concept of “Farmer Development Centres”, i.e. a service delivery model that integrates farmer training, access to farm inputs, planting materials, “Village Resource Centres” (IT facilities) and community infrastructure⁴. Besides the most widely used standards of UTZ, Rainforest Alliance or Fairtrade, Armajaro offers tailor-made verification audits for specific demands of buyers⁵.

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A group of 500 farmers (331 men and 169 women) in 19 communities in Sefwi Wiawso cocoa district was made available by Armajaro to serve as a CCE pilot, and a baseline study was carried out in September 2012.

Implementation of the training

Sefwi Wiawso cocoa district is located in the north-eastern part of the Western Region, around 150 km from Kumasi. The group’s IMS manager has an office in Sefwi Wiawso town, but the data entry clerks are based at Armajaro headquarters in Kumasi. Local data collection and coordination of training was entrusted to a district Commercial Officer (“Field Supervisor”) who also carried out the second round of the lead farmer training earlier this year. This person recently left the company and was therefore unfortunately not available for interview. Internal inspection is carried out by temporarily employed secondary school graduates from Sefwi Wiawso.

The following timeline was given by Armajaro’s group administrator:

Tab. 3. Training implementation in the Sefwi Wiawso pilot

Who	Period	Remarks
Two Armajaro staff trained by CCE	Two weeks in May 2011	Part of the national master ToT in Ghana with 20 participants
19 purchasing clerks and one lead farmer trained by Armajaro master trainers	3 X 2 days in December 2011	IMS and CCE curriculum
Farmer training by purchasing clerks (UTZ and Rainforest Alliance standards combined)	On average 4 days (January-March 2012)	Introduction to certification and child labour; Water conservation and application of agrochemicals; Occupational health and safety and integrated pest management; Farm establishment and wildlife conservation.

⁴ Sourcetrust: Our Commitment to Cocoa Farming in West Africa (http://www.sourcetrust.org/media/assets/file/6987_Source_trust_West_Africa_art.pdf, accessed on 18/11/13)

⁵ Olga Gormalova, Sustainability Programme manager, Armajaro, pers. comm.

Who	Period	Remarks
20 farmers carry out internal inspections	2 days of inspection training in July 2012; inspections in July/August	A sample of 450 and 50 farmers inspected to the UTZ and RA standards, respectively, corrective actions formulated verbally
Baseline study by CCE consultants	7 days in September 2012	56 individual interviews with farmers from 8 communities, trend analyses in groups, key informant interviews
Scaling up to 1,000 producers in 30 communities (“societies”). 30 lead farmers and 30 purchasing clerks trained by the company trainer (field supervisor) on the UTZ standard only.	3 days in April 2013	IMS and CCE curriculum (one day classroom, one day demonstration plot, one day group facilitation exercise)
Farmer training by lead farmers, assisted by purchasing clerks	On average, 1 day per week from April to September 2013	Topics to be covered: Introduction to certification Farm establishment Soil erosion Soil fertility Integrated crop and pest management Harvest and post-harvest processes Productivity enhancement Quality enhancement Waste management Health and safety Child labour Community relations Record keeping Ecosystems conservation Wildlife protection
Internal inspections by externally recruited inspectors	2 days training scheduled in November 2013, followed by 3 weeks of inspections	Delayed over discussion with cocoa buyer what verification system to be used
Preaudit by external consultant	Scheduled for November / December 2013	
External audit	Planned in December or January 2014	

The first round of the farmer training programme had not been completed when internal inspections in mid-2012 showed that the participants were unlikely to achieve the expected compliance level. Training activities resumed only in April 2013 with a new funding from the cocoa buyer.

Instead of relying solely on purchasing clerks as farmer trainers, Armajaro attempted to identify “lead farmers” in the communities. Purchasing clerks were now to work in tandem with the lead farmer. Though purchasing clerks usually are farmers themselves and have close links to their circle of producers, but their role as cocoa buyers does not automatically make them good facilitators. Lead farmers on the other hand were designated by their community during a group meeting and are likely to have higher legitimacy in the eyes of their neighbours. However, competent and committed lead farmers who are prepared to work on a voluntary basis are naturally in short supply.

In a meeting at Armajaro’s office in Wiawso with a group of PCs and lead farmers, it was suggested that lead farmers are mainly motivated by the recognition and social standing they acquire in their communities. It was also pointed out that they benefit from an extra training input which helps their own farm operations. However, there is an understanding that in the long run,

some form of compensation will have to be put into place, and Armajaro' sustainability programme is currently conceiving the outlines of an incentive package.

The selection of training participants remains at the discretion of the purchasing clerk. Each society got a quota to fill. The main criteria for the purchasing clerk are trust and personal affinity in an environment characterized by stiff competition between buyers. The profile of the participants in comparison to the overall characteristics of the cocoa farming population in Wiawso district is difficult to ascertain. In our original panel of 56 farmers in September 2012, there are no sharecroppers, the cocoa farms are relatively young (a mean of 15 years) and farm sizes are relatively big (7 acres) compared to data from a large 2011 cocoa household survey by MIT/Harvard University researchers⁶.

The farmer trainers affirmed that the training sessions take place weekly or biweekly on different farms. A session takes 1-3 hours. Young and old, men and women are all grouped together irrespective of their educational and knowledge level. If a training group is very large (>50 producers), the group may be divided according to geographic location.

The farmer trainers have been given the farmer trainers' manual and posters. Only the CCE training materials are used during the training. The trainers stated that they decide flexibly on the topics but usually follow the order in the curriculum. It was affirmed during the meeting that the role of the Armajaro field supervisor was limited to setting the schedule and carrying out backstopping visits.

The CCE curriculum does not provide formal tools of training assessment, but CCE has developed formats for evaluation of trainers and pre and post knowledge tests of participants. None of these tools have been used in the Wiawso group. Solidaridad has not been contracted to carry out any backstopping in this initiative. Training effectiveness is equated with compliance with standard-relevant practices assessed in internal inspection, which was expected to be carried out in November 2013.

The group administrator stated that participants are considered dropouts when they have attended less than 60% of the training and do not follow up on corrective actions upon internal inspections. However, data on individual rates of attendance have not been monitored, and there has been no follow-up on corrective actions in 2012. Attendance lists show the total number of participants from which average attendance is easily calculated but for lack of an individual break-down, they do not show whether some individuals have rarely or never participated in the training.⁷

We discussed with groups of participants in Asiakrom, Aboboyaa and Dwenase and found that training implementation has been quite uneven:

- The number of training sessions ranged from three to ten. Whereas some had started right after the ToT in April 2013, others took off only in August. Training was suspended last September in preparation of the internal inspections. Thus, in some communities, farmers have been taught only a fraction of the CCE curriculum programme.
- Trainings may include practical units on farms but in other cases were exclusively held as theoretical classroom sessions.
- Training in the sampled communities was carried out by either the field supervisor of Armajaro together with the PC or a lead farmer from another community, but not by a local field farmer as claimed.
- The practical organization of the training events was not always to the satisfaction of the farmers. In one case they complained that training had not been carried out during Thursdays or Sundays (idle or "bad days" for farming in that community), but rather during busy farming days and referred to one occasion where the training had not been postponed

⁶Jens Hainmueller, Michael J. Hiscox, MajaTampe (2011) BASELINE SURVEY: PRELIMINARY REPORT. Sustainable Development for Cocoa Farmers in Ghana. MIT and Harvard University

⁷Data on individual attendance exist in the paper form (Olga Gormalova, Sustainability Programme manager, Armajaro, pers. comm.), but data for the interviewed respondents were not available for this study

for a funeral. This resulted in low participation. Women seem to be particularly at a disadvantage as they have to reconcile training attendance not only with farm work but also household chores, and their attendance rates were generally under 50%. For instance, late afternoon sessions may conflict with the preparation of evening meals. In another community however, the women stated on the contrary that they would prepare earlier in the afternoon to be free during that time.

Results of individual and group interviews

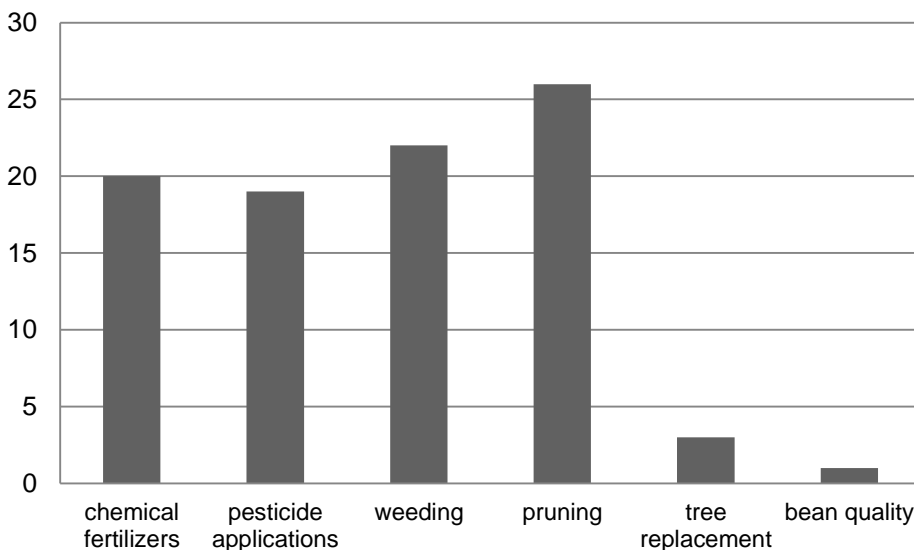
38 of the 56 farmers who had been interviewed twelve months ago could be contacted and surveyed again. First, we asked farmers what changes they had brought to their farm operations during the past year (fig. 2).

Farmers most often cited intensified weeding and systematic pruning as a result of a better understanding of the importance of these practices for productivity. Every second respondent had also changed fertilizer and pesticide use. This mostly implied more consistent and targeted application. Four farmers reported to have used fertilizer for the first time. Seven farmers had gradually reduced their pesticide applications.

Tree replacement is a minor issue as only six of the sampled farmers have farms that are more than 25 years old.⁸

Changes to bean quality were not to be expected on a significant scale as the Ghanaian cocoa is already of higher quality in the region.

Fig. 2. Changes to farm operations during the last 12 months (38 respondents, multiple responses)



Farmers’ hopes with regard to farm finance have not been fulfilled. Last year, 26 farmers had envisioned taking credit (mostly from their cocoa buyer) for financing major changes to their farms but only four reported to have received a loan. Three farmers had got an informal arrangement with their purchasing clerk, mainly in order to pay farm labour. The money will be paid back in cocoa. Only one person had been able to secure a two-year loan with a commercial bank by collateralizing his cocoa farm.

All others had to resort to their own savings to finance farm inputs.

Mid-2013, Armajaro started to pilot an input credits scheme. An input package composed of fertilizer and pesticides for control of black pod and capsids worth 507 GHS was offered to farmer

⁸Source Trust is setting up a cocoa seedling nursery in Wiawso town with funds from client premium payments. It is to be operational for seedling distribution in early 2014.

groups. Farmers were required to form solidarity groups of 10 members with a leader and a treasurer and to deposit 40% worth of the package. As it was late for effective use of fertilizer, the package was later reduced to the pesticides. Farmers however have been reluctant to take it up as it seems that the chemicals can be acquired on the black market for less than two third of the offered price⁹. We came across various misconceptions. In one group interviewed, farmers maintained that the 40% is not a deposit but the interest rate.

We discovered some notable discrepancies between the 2012 and the updated information on farm acreage. The mean farm size is down to 5.8 acres (2012: 7.0), which is consistent with farmers' tendency to overestimate farm sizes. However, most farms had already been mapped last time with GPS. It seems that the information had not got through to the farmers. Meanwhile, most of the farms have been mapped¹⁰.

We have not been able to record yield data during the baseline. The mean yield in our sample for 2012-13 (main crop 2012-13 plus the minor crop of 2013) is 696 kg/ha (range: 168 -1,523 kg/ha). This is neatly above the average yield in Ghana of 400-500 kg/ha¹¹, but productivity in Sefwi Wiawso is higher than the national average and the cocoa farms in the sample are relatively young.

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Productivity data provided by Armajaro (based on sales records) for our sample of producers indicate far higher figures: 1,092 kg/ha for 2011-12 and 1,269 kg/ha for 2012-13, respectively. This is can only partly be accounted for by the smaller farm sizes (4.2 acres or 1.7 ha) used as basis for the calculation.

The official cocoa price was maintained from last year despite a depreciation of the cedi against the dollar and rising cocoa world market prices. Farmers are paid GHS 3,280/t (1.21 €/kg) at the farmgate. Recalling an average household size of 7 persons and a dependency of 80% on cash income from cocoa, the mean annual gross cash revenue can be very roughly given as 6,700 GHS or 2,480 € per household¹². The 2010 MIT/Harvard survey found far lower annual household income levels of 1,114 GHS from agriculture (966 GHS from cocoa) in the Western region.

Using the Armajaro data, the gap becomes even bigger: 1,269 kg/ha result in an average production of 2,157 kg per farm and a gross income of 7,075 GHS. Adding the 20% from other economic activities, this results in an annual household income of 8,444 GHS (1,263 GHS per household member, or 3,272 € and 467 €, respectively.) – more than seven times the cocoa income from the MIT/Harvard study.

Monitoring yield data from individual interviews does not give very reliable results as some farmers have difficulties in recalling numbers for the relevant period. The producers have passbooks that potentially give a wealth of information. Apart from personal information and basic data on the farm (plots), there are sections on training attendance, external support, labour, farm maintenance, tree planting, Integrated Pest Management, maintenance of equipment, mass sprayings, inspections, and sales records. However, the books are not used by their owners and usually kept by the purchasing clerks. The books we saw were devoid of information except for the sales documentation.

The baseline 2012 had shown that record keeping of farm operations (activities, inputs, expenses) is uncommon though part of the CCE curriculum. Improving record keeping skills is to be included in the farmer training, but it has not been practiced. Thus, it seems that required documentation is

⁹Most likely products from the CODAPEC mass spraying programme

¹⁰Check-up of farm size data by Armajaro gave a mean of 4.2 acres or 1.7 ha

¹¹Asante-Poku A., Angelucci F. (2013). Analysis of incentives and disincentives for cocoa in Ghana. Technical notes series, MAFAP, FAO, Rom. http://www.fao.org/fileadmin/templates/mafap/documents/technicalnotes/GHANA/GHANA_Technical_Note_COCOA_EN_Apr2013.pdf, accessed on 28/11/2013

¹²A mean of 1634 kg per operator, worth 5,360 GHS, gives a total annual cash revenue of 6,699 GHS, or 957 GHS (354 €) per capita

ad-hoc for the audit. Illiteracy is often quoted as a reason not to emphasize this aspect of the training.¹³ However, motivation seems to be the more important constraint, both for the trainer and the participants.

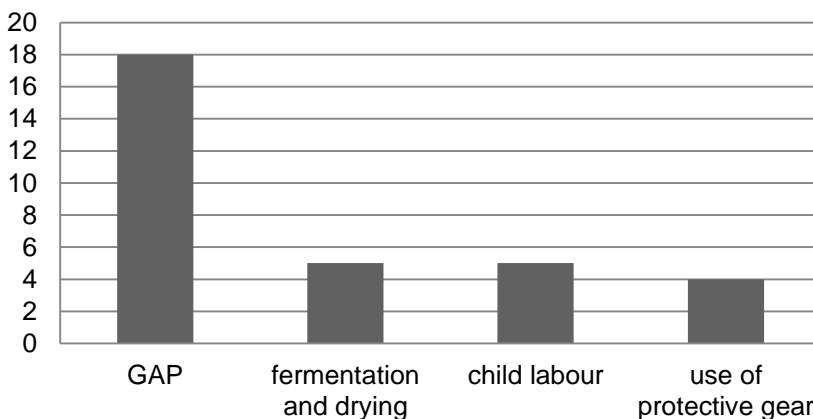
For many farmers, the certification training is the first structured training input they have ever received. It comes therefore at no surprise that satisfaction of participants is high. Three farmers suggested the training be more frequent. Just one person said it would be desirable to learn more about “money management” and alternative activities for income during the minor cocoa season. The mean number of training days (sessions) attended is 5 (range: 0-10).

When questioned about the benefits of the programme, all respondents referred to good agricultural practices and enhanced productivity it promises. Seven farmers also mentioned environmental and health benefits, in particular through the more judicious use of pest control chemicals.

Farmers had few comments on possible constraints. Four persons mentioned difficulties related to record keeping.

We were also interested in whether farmers shared their knowledge with other farmers. 25 of 38 stated that they had an exchange with non-participating farmers, mostly about good agricultural practice (in particular control of black pod and capsids, sanitation and pruning), but also about the use of personal protective equipment, good post-harvest practice, and child labour (fig. 3).

Fig. 3. Themes in farmer-to-farmer exchanges (38 respondents, multiple responses)



As there has been no use of assessment tools by the farmer trainers, we introduced some knowledge tests into the individual interviews to assess learning results quantitatively:

- What are the criteria for a cocoa farmer to replace a cocoa tree with a new one?
- What is the best planting distance between two cocoa trees?
- Why is it a good idea to have shade trees in the cocoa farm?
- What do you think are the best methods to fight against blackpod?
- Do you know the different ways by which pesticides enter the human body?

What kind of work can children under 15 do on the cocoa farm?

- A - work with cutlasses to break pods
- B - carry bags of cocoa
- C - climb on trees to remove mistletoes
- D - weeding
- E - spray pesticides

8 respondents indicated the recommended age of 30 years for cocoa tree replacement given in the CCE curriculum, whereas 11 would rather wait until the age of 35 to 40. Those who referred to yield per tree were also relatively tolerant and would on average settle for 5 pods per tree.

¹³Three quarter of farmers in our original sample have at least some primary education

Score: 9/38 (24%)

31 of 38 respondents gave the correct spacing for mature trees (10 ft or 3 m).
Score: 82%

Many farmers had concrete ideas about the role of shade trees (fig. 4).
We considered that respondents should know at least three functions.
Score: 32/38 (84%)

With the question about the preferred methods to fight black pod, we intended to test whether farmers have a grasp of “integrated” pest management that gives preference to alternative (and less costly) management methods. We expected producers to give top priority to any of the non-chemical possibilities.

In farmers’ minds, the curative approach through spraying still dominates over preventive measures (fig. 5).
Score: 10/38 (26%)

Fig. 4. Functions of shade trees (38 respondents, multiple responses)

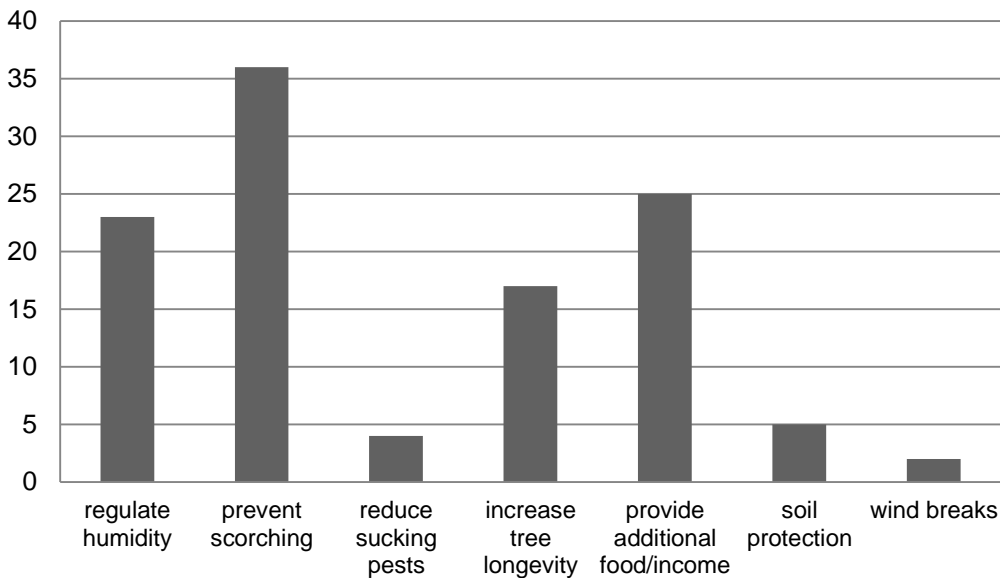
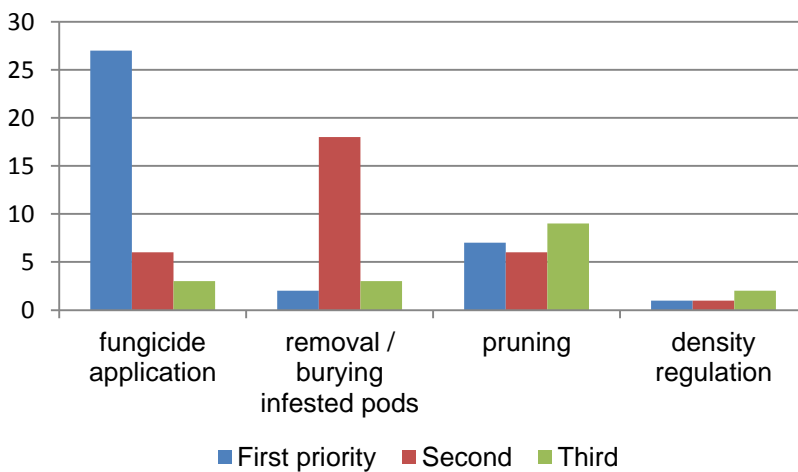


Fig. 5. Methods to combat black pod, in order of priority (38 respondents)



24 of 38 respondents knew that pesticides can enter the human body via the skin, but only 16 and 11 farmers mentioned the risks of ingestion and inhalation, respectively. 7 had no idea.
Score: 44%.

The access to protective gear has greatly improved since the baseline interviews. A year ago, most farmers owned just a pair of boots. Now, complete spraying gear with overall, mask/respirator, goggles, boots and gloves are available with the PC. Nevertheless, many farmers prefer to spray themselves instead of engaging the spraying gangs trained by the project.

We expected a clear “no” to all answer options read up to respondents about child labour. Two people thought that pod breaking with a machete is acceptable. Another two respondents found it acceptable that children carry out weeding with sharp tools.
Score: 34/38 (89%)

The overall score is a reasonable 58%. Some weaknesses showed up in the questions about agrochemicals. Tree replacement is less relevant in the specific context of the Sefwi Wiawso group.

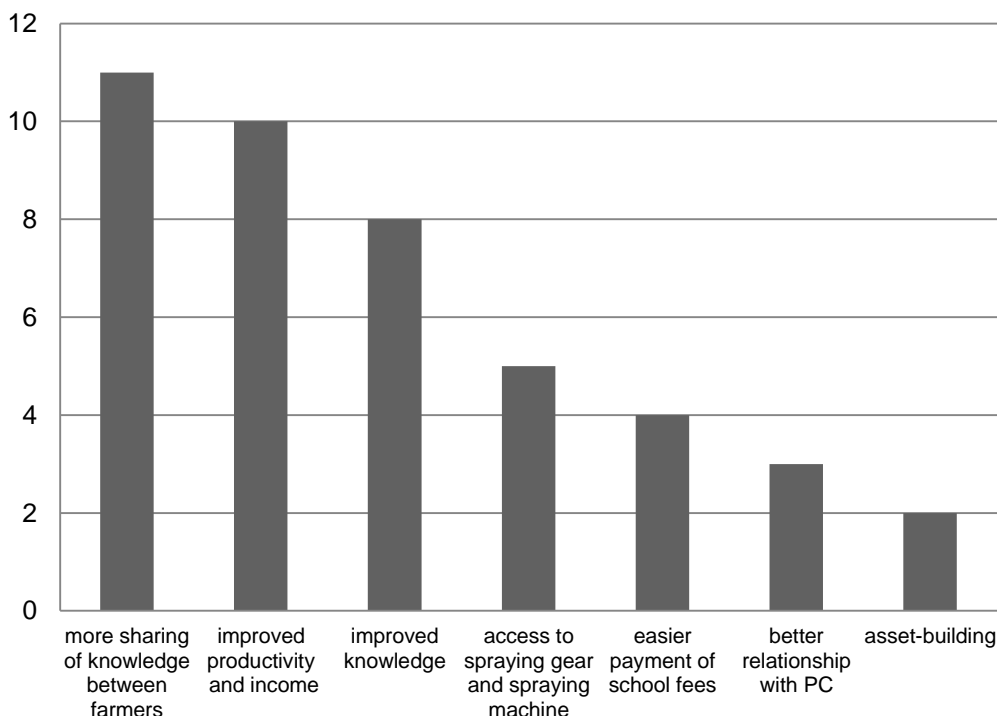
During the baseline study in September 2012, farmers had expressed marked optimism about the future of their farm: 82% thought that it would improve or improve a lot. We took it up by asking “What do you think about the results of your cocoa farming during the last 12 months when we talked the last time?” Virtually all (37 out of 38 interviewees) stated that it “is now better”. When asked for explanations, all hinted to adoption of some improved practices such as fertilizer application rates, well-directed pesticide spraying, timely weeding, or more effective pruning.

Fig. 6 details the answers to the question “Has anything else changed in your life since you have started the CCE training?”

It shows that farmers are strongly focused on their cocoa farm when reflecting about their livelihoods. Improved knowledge and adoption of new practices resulting in higher productivity and higher income play a prominent role. It is interesting to note that 12 participants emphasized the communication and exchange between farmers since the training programme started. Two persons referred to improvements of personal housing conditions.

Thus, farmers themselves attribute a great deal of benefits to the training programme.

Fig. 6. Farmers’ perception of changes (38 respondents, multiple responses)



Besides farmers' acquaintance with good agricultural practice, we also took interest in farmers' knowledge about the certification process.

We asked whether they could mention any difference between the two standards UTZ and Rainforest Alliance that had been introduced in 2012. Four of the 38 respondents came forward with an idea, two of them in the right direction ("RA is focused more on wildlife protection, UTZ more about good agricultural practice and bean quality.")

We added the question whether the Fairtrade standard was known to the producers. 14 respondents had heard the word before, but nobody was able to give an explanation of what it stands for.

Finally, respondents were asked to give their opinion on why a premium is paid to producers. 17 farmers had no idea (or did not know the concept of premiums). The remaining 21 respondents linked it to "compliance", i.e. the respect of certain production rules. Armajaro has not communicated about premium payments, as no final decision about premium payments had been taken. Farmers in some communities are however acutely aware of the incentives given by some other buyers, where upfront payments have been handed out to farmers, for instance in the Aboboyaa area. This has created some upheaval in that society. Only 10 farmers had signed up for the training. Those were clearly among the most motivated and advanced farmers. The quota of 25 participants had not been filled. Scathing comments from non-participants made it clear that some extra payments are expected if they were to sell the forthcoming main crop to Armajaro, regardless of the training and its benefits offered.

We deepened the issue of certification during three meetings with groups of training participants. We wanted to know to what extent they understand the process of getting certified to the standard of UTZ. The discussion revealed that for the vast majority of farmers, certification is a closed book in the same way it was a year ago. The general picture was that:

- The average farmer does not know that there is a management and documentation system in place led by a group administrator;
- It is not common knowledge among participants that it is not the individual farmer but the group who is certified; and that there is a formal inspection procedure processed by an approval & sanction committee;
- The average farmer does not know "UTZ" (neither the name nor the logo, let alone that it is a standard with specific requirements);
- The role and responsibilities of group administrators, inspectors, external auditors and standard owners is only known to a small elite of producers (basically the trainers themselves).
- Farmer-to-farmer exchange works for basic farm practices, but not for more complex issues. Process knowledge from already certified farmer groups in the area has not trickled down to the newcomers.

This level of awareness is below expectations as farmers in this pilot have been introduced twice to the idea of certification, according to the programme (table 3). Moreover, they have signed individual contracts and committed themselves to training and adoption of practices leading to certification to the UTZ standard. Farmers were also given double-sided posters with pictorial descriptions of key practices pertaining to the UTZ standard (the so-called internal standard).

The status of the Sefwi Wiawso pilot with regard to certification is not very clear as the verification system demanded by the buyer had not been clarified beforehand. Armajaro management explained that the company has a general capacity-building approach focused on better productivity¹⁴. The UTZ standard therefore was judged the most appropriate guidance for the Sefwi Wiawso training initiative. The emphasis was consequently on results in good agricultural practice and first year mandatory control points of the UTZ standard, such as handling of agrochemical crop protection products and child labour.

¹⁴ Olga Gormalova, Sustainability Programme Manager, Armajaro, pers. comm.

Accompanying measures by SourceTrust in recent years consisted in the construction of boreholes in three communities (Akpafu, Aboboyaa, Domeabra) where the population previously relied on surface water.

Donations are said to be based on the request by the communities. The justification is checked on the ground but ultimately, decisions are made as a function of available funds. The perspective to receive donations entertains a constant level of expectations in the communities. During field visits, Armajaro staff is regularly confronted with repetitive demands of communities to finance community infrastructure, free equipment and subsidized inputs.

This year, a 20 ft container with a CPU, six computer screens and a printer has been installed in the compound of Datano Junior High School to serve as a “Village Resource Centre” for the neighbouring Domeabra community. A Government programme contributed 6 laptops (MGS One, assembled in Ghana). Students take 30 minute sessions in Microsoft Office under the direction of the school’s IT teacher.

The advertised idea is that (lead) farmers watch STCP learning videos but this does not happen. There is very little learning material anyway. For instance, there are no CCE curriculum manuals or other documents on cocoa.

During this follow-up visit, we also had a closer look into women’s situation.

The gender-disaggregated results from the last baseline survey are presented in table 4. The table only shows the main differences between sexes.

Tab. 4. Baseline survey 2012, some gender-based comparisons

	Male (n = 40)	Female (n = 16)
Mean of age	40.1	50.2
Median of household size	6	8.5
Illiteracy	23% (9/40)	38% (6/16)
No fertilizer use	25% (10/40)	38% (6/16)

Women are on average older than their male counterparts, consistent with the information that women often acquire land through heritage from their husbands. The Intestate Succession Law promulgated in the 1980s changed the traditional inheritance system. According to this law, in the event of a man's death, one-third of his property would be given to his widow, one-third to his children, and one-third to his extended family. This has created more social security for women as the principles of a “fair” share of land for women are widely acknowledged.

The rate of illiteracy is higher among women. They live in bigger households and tend to be disadvantaged in terms of investments into farm inputs of which chemical fertilizers are by far the most costly. With regard to experience in cocoa farming, the age of farms, the degree of dependence on cocoa income, most of the farm management parameters and perceptions of the farm and its future, no significant differences were observed.

Women’s attendance rate in the 2013 training is on average not lower than that of men. Still, we gathered both from individual interviews and group discussions that some women struggle with reconciling their presence in the training with household chores. It was repeatedly heard that women can easily be replaced by other family members (husbands, sons) whereas this never occurs the other way round.

It should be noted that “sharing of knowledge between spouses” was attested far less by respondents (3 of 38) than exchanges between farmers/neighbours (26 of 38).

Men are traditionally responsible for land clearing. As fallows and new land for cocoa become increasingly rare, men’s workload in this respect is rather set to decrease. Early crop care and intercropping of young cocoa with cocoyam or plantain is mainly a female occupation. Both sexes

share jobs in weeding, pruning, harvesting and post-harvest operations. Women usually do not apply agrochemicals, but fetch water for the spraying tank and cook the meals in the field.

Women did not articulate any particular training needs, but some pointed out that they would be more comfortable if they had a training group on their own. Women did not champion income diversification more than men. The agricultural extension system is virtually absent. Food crops are grown the “traditional way” (as cocoa was until recently), without improved planting material, crop protection or any specific cultural techniques. Returns on cocoa are far better and all intensification efforts go into the cash crop.

Given the additional workload of women in the household and their stronger involvement in food crops, single women farmers more often have to hire labour for the additional work that comes with improved practices. We did not come across any labour-sharing associations of women.

There is no pool of professional migrant workers in the area. Workers are recruited among sharecroppers who may work in parallel for several farm owners. Scarcity of labour translates into relatively high costs: 12-17 GHS (4.40-6.30 €) for a working day, depending on the nature of the job, and including a meal.

When it comes to the responsibility for money keeping and decision-making about expenditures, women may be in control of their own income sources (this is especially the case if the woman has ownership of land), whereas in the more typical case the husband alone is in charge and decides how much money to give to buy food and other basic items. One woman stated in view of the latter situation that in any case, it would be very difficult for their husbands to hide the true value of cocoa sold, as she is able to estimate the number of bags fermented and dried in the village very accurately...

Two cases illustrate the different perceptions of two women farmers.

Mercy (54) worked on her parents' cocoa farm when she was a kid. Nevertheless, she can be considered a new cocoa farmer. It is just five years ago that she started a small cocoa farm outside Sefwi Wiawso town she had inherited from her parents. When her husband was still alive, she worked in a timber company in Sefwi Wiawso and later sold kitchenware on the local market. The married couple also had a farm within the Sefwi Wiawso municipality that was lost in a land dispute. As a widow, she started to work with a producer of cocoa seedlings, and the opportunity arose to plant cocoa on the inherited land. The cocoa is now in the second year of production. She is regular in the CCE training and very keen on practicing pruning, making sure that black pod infested pods are removed early, and broken pods are spread evenly as a fertilizer. Fortunately, her younger brother is available to help her on the farm. She has no access to credit and will not use any chemical fertilizer, she focuses instead on the visible improvements she is seeing with the adoption of agricultural practices without any cash outlay. The cocoa farm is in good shape and will be her retirement scheme. Two of her five children are in secondary school, the others have learned a trade and still live in Sefwi Wiawso. She does not believe that they will become cocoa farmers, unless they manage it as absentees.

Rose (55) has inherited a four acre cocoa farm from her father. She has learned about new pruning techniques, the results of better weeding, sanitation and about the importance of proper disposal of agrochemicals. She has however not been able to attend all training days. Training sessions were sometimes announced and changed with short notice, and her workload is high. Rose has seven children, four of which are still students. The biggest charge is the 2,500 GHS bill for the boarding at a teachers training college of one of the younger sons. She does not share the same household with the father of her children, but he contributes to the costs of education.

The farm is also vulnerable to floods and difficult to access during rains. Around 5 years ago, parts of the farm were inundated and had to be replanted. Making ends meet is a challenge. She observes positive changes owing to the adoption of improved practices as other training participants, but in view of the numerous charges for the farm (higher costs of labour for weeding, mistletoe removal) and for the household, she continues to rely on consumption loans with her PC. Fertilizers are out of reach for the moment.

On various occasions, we also interviewed young people (around 16-25 years) in an informal way. There are not many persons in this age group to be found during weekdays in the villages, because most are studying in schools and colleges or have found office work or opportunities in craft or small trade.

Opinions about cocoa farming can very roughly be summarized as follows:

- Cocoa farming is not an option if you have other choices: to start with, there is no free land left – it is not possible to expand operations to make a decent living of it; there is not enough support or services for farmers; last but not least the physical hardship of being a farmer is an unattractive perspective, especially for girls;
- Only those who have not succeeded in school, either for lack of talent or motivation or who have encountered social problems in towns, are likely to come back to the farm;
- Farming and in particular cocoa, is “uncool”: it conveys images of hard work with little returns and the boredom of life in villages with little entertainment;
- However, as the youngsters will one day become farm owners, they could imagine being absentee farmers: retaining ownership of the farm, but the work would be left to sharecroppers.

Conclusions

Technically and in terms of productivity, the Sefwi Wiawso farmers are doing far better than all other producers in the five baseline groups studied. This is certainly owed in part to the use of fertilizer, largely absent in Côte d’Ivoire and Nigeria. Moreover, most cocoa farms are in their prime (15 years on average.) The productivity data given by Armajaro should however be assessed in comparison to other comparable groups in the region.

Armajaro is in the process of setting up an M&E system for collection of farm data (GPS-based farm mapping, yields, adoption of GAP), but also on social processes with the aim to provide area-specific information for cocoa importers. However, existing data is so far paper-based and need to be collated for any specific purpose. As far as the Sefwi Wiawso project is concerned, basic information such as training attendance breakdowns, acreage or yield is not readily available and had to be digitized ad-hoc. Armajaro has not contributed to CCE’s baseline indicators.

Despite shortcomings in training implementation (incomplete training programme, less practice than in CCE training taking place in “farmer field schools”, no particular arrangements for the weaker participants, no monitoring), participants consistently reported to have learned new contents relevant for increasing productivity, such as pruning techniques, cultural methods for control of black pod and parasites, and better pesticide application methods. The latter is particularly relevant for the occupational health of operators, too, as the baseline study had found an array of problems related to the inconsiderate use of agrochemicals such as the use of non-approved products, false application rates, and insufficient protection.

The project has not been able to mobilize and strengthen local training capacities as it proved difficult to find committed volunteer lead farmers. As long as no incentives are offered, the project will have to continue to rely primarily on company trainers and purchasing clerks to carry out the training sessions, which will pose limits to scaling up possibilities and compromise training quality further.

It is also noted that there are no women among lead farmers which is at variance with the relatively high proportion of women farmers. Women are relatively worse off than men, both in terms of land ownership access to finance and labour, workload, and training attendance.

Input provision for services to farmers has been conceived but is not yet operational in the project; group-based input credit schemes and a central nursery in Wiawso will be expected to be effective in 2014, in the third year of its operation.

Some farmers have reported improvements in terms of their “cash flow”, and we can assume that improved yields and income will alleviate the need for a regular cash credit source during the lean season, especially between August and October just before the main crop season. However, it

should not just be regarded as a matter of cocoa productivity, but also in terms of income diversification (a blank area in the cocoa sustainability map), and of financial skills.

In fact, there have been no attempts to tackle the next step in professionalizing farmers by enhancing their record keeping and financial skills. Not all farmers have received the new passbooks and most of these are neither used by the operators nor are they kept with them. Any monitoring tasks beyond the inspection exercises would benefit from these data sources, such as training attendance, labour inputs or pesticide use. The record book would also be a good management tool for keeping track of expenditures. Illiteracy is commonly quoted, both by trainers and the concerned farmers themselves, as the main obstacle to its use. However, there are quite a number of ways to tackle this:

- Adult literacy and numeracy classes, initiated by local teachers (see the Cargill chapter)
- More emphasis on record-keeping with practical exercises during the CCE training; literate farmers can help others (as could other family members);
- Solidarity groups for input credit could be another entry point;
- For a more elaborate but adaptable approach, the Farmer Business School materials (developed by the Sustainable Cocoa Business Project) are recommended (announced last year by Armajaro for the Sefwi Wiawso pilot, but not implemented).

A broader approach to capacity-building is likely to benefit farmers more directly than “Village Resource Centres”, which are used to strengthen IT skills of secondary school students. Page | 25

Ad-hoc donations are not without their problems as they perpetuate an asymmetrical relationship between a buyer-patron-donor and a “needy” farming population deprived of adequate rural infrastructure and social services. “Gifts”, bonuses and subsidized inputs that are proposed by competing Licensed Buying Companies entertain a short-term opportunism among farmers. The legitimacy of the criteria for selection of beneficiaries is not easily accepted in the communities as basically all are considered equally eligible. Farmers at times seem to lose sight of the bigger picture when refusing to participate in training (highly valued among their neighbours) because of small upfront payments by competitors. There is however another reason for the persistence of certain attitudes. Most farmers do not know that they have embarked on a group certification process, for lack of being informed properly. This may not be so relevant if certification to a given standard is a one-off exercise according to prevailing market dynamics. The current shortcomings in communication about the rationale of standards and certifications will make it more difficult for participating farmers to develop a sense of ownership and common responsibility.

Côte d'Ivoire

At present, Cargill buys cocoa from around 750 cooperatives in Côte d'Ivoire. Amongst these 107 are considered as partner cooperatives meaning that they are benefiting from the "Cargill Cocoa Promise" concept including a certification program¹⁵. By the end of the 2012-2013 crop, 60,000 farmers have been trained through Farmer Field Schools in Cote d'Ivoire.¹⁶

Cargill selected the CAADI cooperative (*Coopérative Agricole Anouanzé de Diégonéfla*) in the Department of Oumé, Djiboua Region (south-centre of Côte d'Ivoire) to become its pilot group for the CCE pilot training. Cargill already does business with two other certified cooperatives in the Diégonéfla area, but the CAADI certification initiative is Cargill's first training programme where the CCE materials are used and where farmer training is carried out by lead farmers (*producteurs relais*) and not by ANADER extension agents.

CAADI has a contract with Cargill regarding the certification initiative defining a fixed premium and the exclusivity of sales of certified cocoa for a certain volume. The cooperative is pre-financed by the company. CAADI operates in four new areas (Boessovoda, Dedi, Goueda and Miankagakro) in addition to Diégonéfla, N'drikro, Gnandi, Lahouda, and Bronda that were studied during the baseline in 2012. Gode-N'Guessankro, a forest settlement area we had not been able to visit in 2012, is located within the protected area of Sangoué. Because of its uncertain status it has been removed from the training programme but ordinary cocoa is still sourced from there.

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The baseline report¹⁷ highlighted the challenges CAADI faced since its creation in 2004: insufficient operating funds for providing input credits to members; domination of decision-making by a single investor; lack of transparency and democratic control, and an unstable membership base. Moreover, CAADI has incurred debts during the 2011-2012 crop.

CAADI held an "extraordinary general assembly" in September 2012 shortly before the baseline study during which the board of the cooperative was reshuffled. The treasurer was elected president (*Président du Conseil d'Administration*) and unofficially holds this double function ever since. The daily routines are in the hands of a manager (*Directeur*), who has also become one of the farmer trainers (*producteurs relais, PR*). A secretary is officially in charge of correspondence and documentation of meetings and assemblies. All functions are doubled by a deputy. The cooperative also employs a warehouse manager.

"Delegates" (commercial agents) source the cocoa from their communities and organize the transport of the cocoa to the cooperative's warehouse in Diégonéfla.

The cooperative has at present 336 members, 251 of which are taking part in the certification programme. Training participants have signed an agreement with CAADI in which they commit themselves to attend training for certification to all three standards (UTZ, RA, Fairtrade), to comply with the respective requirements and to sell their cocoa exclusively to CAADI.

Implementation of the training

The IMS training and ToT of farmer trainers were implemented through a PPP with Solidaridad and took place during five days in February 2013 (table 5). A group manager (ADG) responsible for the Internal Management System was recruited and is backstopped by "certification agents" of Cargill.

CAADI is Cargill's first attempt to mobilize lead farmers (PR) for farmer training. Five candidates had been proposed by the delegates in the communities and passed a knowledge test. The

¹⁵A. Ringô, Cargill, pers. comm.

¹⁶The Cargill Cocoa Promise (<http://www.cargillcocoachocolate.com/sustainable-cocoa/the-cargill-cocoa-promise/>, accessed on 21/11/13)

¹⁷p. 35ff

minimum requirements were: being a member of the cooperative, senior high school education, good technical knowledge, and availability. Four candidates were retained. The lead farmers train cooperative members in two or three villages (“sections”) where they are responsible for groups of highly variable size (from 11 to 65 farmers, 33 persons on average). The lead farmers also carry out the internal inspections in the sections of their colleagues.

Tab. 5. Training implementation in the CAADI pilot

Who	Period	Remarks
14 members of the cooperative and the IMS (group manager, delegates and lead farmers) trained by Solidaridad	11-15 th February 2013 at ANADER's offices in Gagnoa	Introduction to certification and the IMS Traceability and documentation How to carry out an inspection in the field Facilitation skills Productivity, tree replacement and post-harvest operations Set-up of a farmer-field school Premiums, governance and transparency
Initial inspections by lead farmers	February-March	A baseline on compliance levels in order to define training needs more precisely
Farmer training by four lead farmers (UTZ and Rainforest) in “farmer field schools”	12 training days from March to July 2013	Density of trees and thinning out Sanitary pruning and removal of chupons IPM Ecosystem conservation Work conditions for labourers, democratic control, participation and transparency Worst forms of child labour Waste disposal and composting Community relationships and workers' rights Harvest and occupational safety
Pre-audit by external consultant	2 days in May	Check-up on IMS
Internal inspections by lead farmers	July-August	9 farmers eliminated, 251 remaining
External audit	September 2013	
Certification to UTZ and RA standards	January 2014	251 farmers and 300 t certified (90% UTZ, 10% RA)

All members in one section are trained in a single group. Training statistics given by Cargill account for a total of 222 male and 14 female participants. The global mean of training attendance is 74% and 57% from men and women, respectively. This implies that 15 persons in the certification project never attended training. Like in the Armajaro pilot, there are no statistics of attendance rates down to individual participants.

Lead farmers on the other hand indicated that the total number of training participants in all sections is 297, which must therefore include some “visitors”. There has been a number of undocumented training sessions intended to reinforce some key messages prior to the audit, e.g. about agrochemical waste, after completion of the main training package.

Training was dispensed during 4-5 months on a selected cocoa farm in “farmer field schools” (*champs-école paysan*). A farm plot close to the village made available by one of the participating farmers was used for demonstrating farming techniques.

The lead farmers are in possession of the CCE farmers' training manual and a set of posters. There is no use of other materials.

The language of instruction was French but translations were given in the locally dominating language (Diula or Gban); all lead farmers are proficient in at least one local language. Training was organized (bi)weekly in the morning for around two hours. The training contents were given by the group manager.

The PR met regularly with the group manager, but backstopping in the field has been haphazard. No formal assessment tools have been used to evaluate the performance of the trainers or to assess training results. There has been no backstopping to farmer training by Solidaridad.

Cargill financed the costs for training, the IMS manager, equipment (computers, motorbikes) and the two (blank and external) audits.

CAADI purchased IT materials and five Chinese mopeds for the group administrator and the lead farmers. Cargill also paid a salary of 80,000 CFA (EUR 122)¹⁸ per month during months of field activity (including 30,000 CFA for fuel and communication). Though this is far beyond the incentives given to farmer trainers in other pilots, the PR declared not to be very satisfied with their situation. Besides the training, they are required to document a regular schedule of follow-up visits to farmers. The PRs also carry out the internal inspections. The allowance for petrol is paid irrespective of the workload, and the actual expenses that may have exceeded the lump sums in certain months. The choice of light motorcycles has not been a very fortunate one as these bikes are not adapted to difficult dirt road conditions in the rainy season. Maintenance and any repairs have to be paid by the users from the salary.

It was noted that neither the group manager nor the lead farmers have been given work contracts¹⁹.

Results of individual and group interviews

One year ago, there was no confirmed list of producers. Selection of interviewees was based on declaration of interest. 38 of 49 farmers interviewed in 2012 actually have signed up to the CCE training programme. Of these, we have been able to meet 31 (29 men, 2 women).

We first asked farmers whether they had been able to follow up on the intended changes to their farm operations we inquired one year ago. The intended changes concerned mainly tree replacements, farm expansion, and more pesticide and more fertilizer use, respectively.

Farmers principally realized their projects with regard to tree replacement and farm expansion (fig. 7)²⁰. Cultural techniques such as weeding and pruning have been intensified by more than half of the farmers. These learning contents had been emphasized early in the training cycle and their importance for productivity is now widely acknowledged.

The frequency of pesticide applications was and still is much lower than in the Ghana or Nigeria pilot groups. Producers reported a mean of 1.5 sprayings per year. In 2013 all CAADI farmers received one unit of Bifenthrin (an insecticide) as part of the 2QC programme of the Conseil Café Cacao (CCC) distributed through ANADER. This has led 9 farmers to report an increase of pesticide use.

Fertilizer use remains at zero. CAADI had made contact to the farm supplier AGRITEC that provides inputs at bulk prices, but given that the payback period is just one week no producers purchased any fertilizer.

¹⁸Exchange rate: EUR 1 = FCFA 656

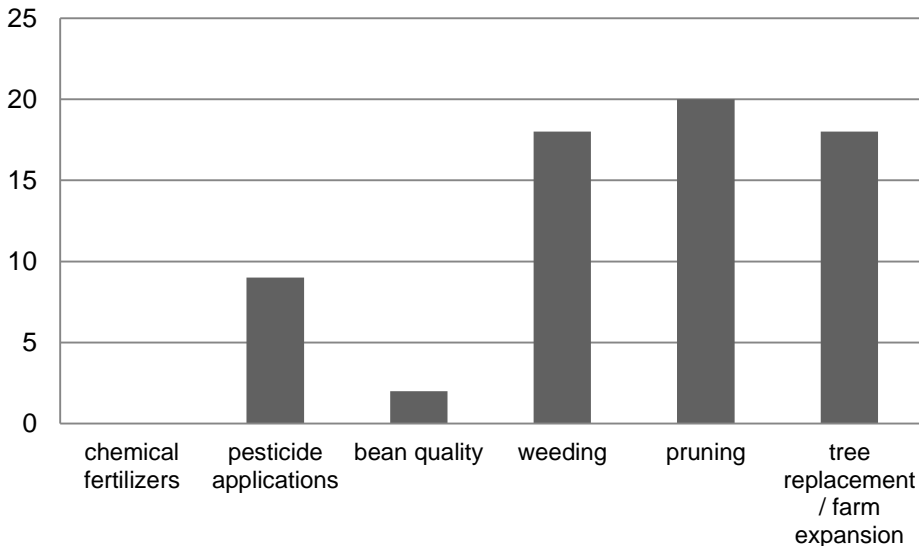
¹⁹ Work contracts are managed by ANADER (for the PR) and by Solidaridad (for the group manager), respectively (A. Ringo, Cargill, pers. comm.)

²⁰ Replacements and expansion are better considered together as it is often difficult to distinguish them (e.g. filling larger empty spaces in existing farms could be considered either a replacement or an expansion)

The extent of replanting / expansion is considerable with a mean of 384 trees (equivalent to around 0.24 ha at recommended densities, or a rate of 6%). The average age of the concerned farms is 29 years.

15 of the farmers relied on their own (or neighbours') seed selection as no community nurseries are operational yet. Only 3 farmers have been able to acquire CNRA certified seed on their own initiative. CNRA's early-maturing "Mercedes" cultivars are scheduled for distribution in 2014 via the establishment of community nurseries in each section of CAADI.

Fig. 7. Changes to farm operations during the last 12 months (31 respondents, multiple responses)



Consistent with the limited cash outlay necessary for the actions taken on the farm, no farmer had taken any significant amount of loan. A few farmers have deferred payment of workers. Others have created self-help groups for work sharing to alleviate labour costs (*entraide*— see case study below).

Money for input had been pointed out as the biggest constraint to farming during the baseline interviews. Several farmers had hoped that the cooperative would provide input credit but this did not materialize. Some farmers have access to emergency credits from one of the more solvent delegates or directly from the president.

Training attendance of the sampled farmers was high: 9.4 (range: 4-12) of 12 training days on average proving that the lead farmers in general have been able to motivate participants. 8 of 30 farmers however suggested the training programme be continued and some practical skills be deepened.

Many farmers have had regular exchanges about training contents and practices with their spouses, workers, fellow training participants, and community members (fig. 8).

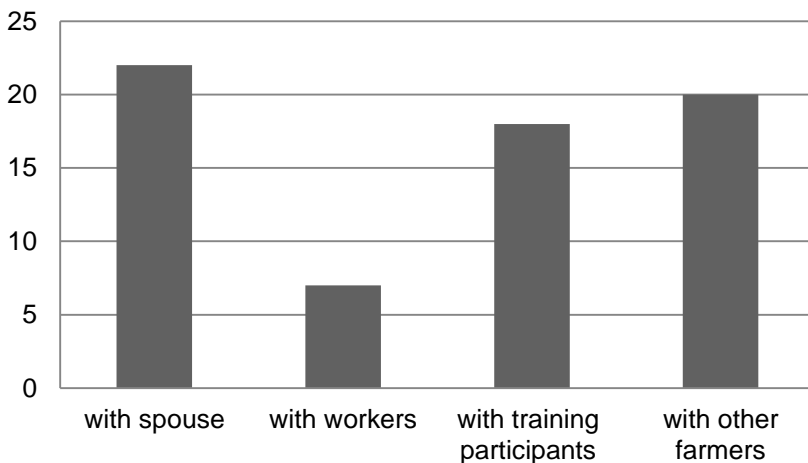
Farmers reported that they had shared lessons on various subjects mainly regarding good agricultural practices (the concept of pruning, the benefits of weed control, targeted use of pesticides...). Often, the focus was also on the dangers of agrochemicals. Child labour and fair treatment of workers was mentioned by 7 respondents. 4 people said that they had encouraged neighbours to join the cooperative in order to benefit from the training.

We tested the current knowledge of respondents with regard to some key practices as we did in Ghana.

Many farmers insisted that age may not be a sufficient criterion as premature dieback in full sun is not uncommon here. Of those who indicated an age or productivity per tree, most hit at the good answer.

Score: 11/16 (69%)

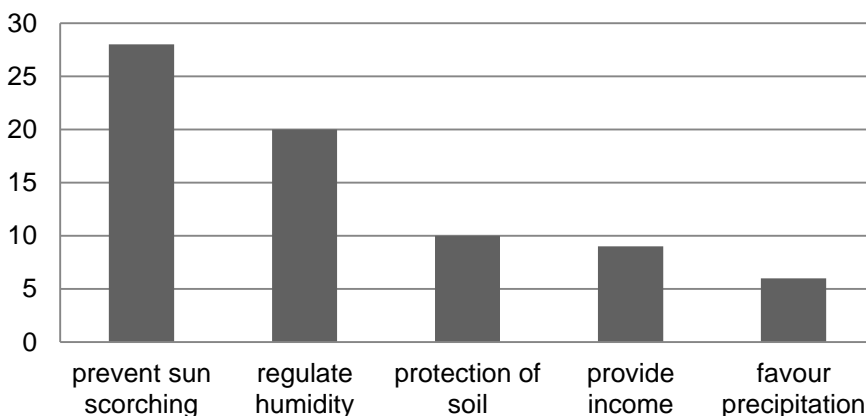
Fig. 8. Sharing of knowledge/skills (31 respondents, multiple responses)



Owing to the CCE training, farmers now acknowledge the benefits of shade trees. Farmers' reasoning is presented in fig. 9.²¹

Score (farmers had to know at least three valid functions of shade trees): 14/31 (45%)

Fig. 9. Functions of shade trees (31 respondents, multiple responses)



27 out of 31 said that the appropriate planting distance is 2.5 X 2.5 or 3 X 3 m. Score: 87%.

When asked about the best approaches to reduce the incidence of blackpod, many farmers took preventive measures into consideration (fig. 10).

Score (removal of pods, pruning or density should be the principal method): 19/31 (61%)

Virtually all producers know that pesticides enter both through the skin, by ingestion and inhalation (27, 29 and 30 of 30 respondents, respectively). Score: 96%

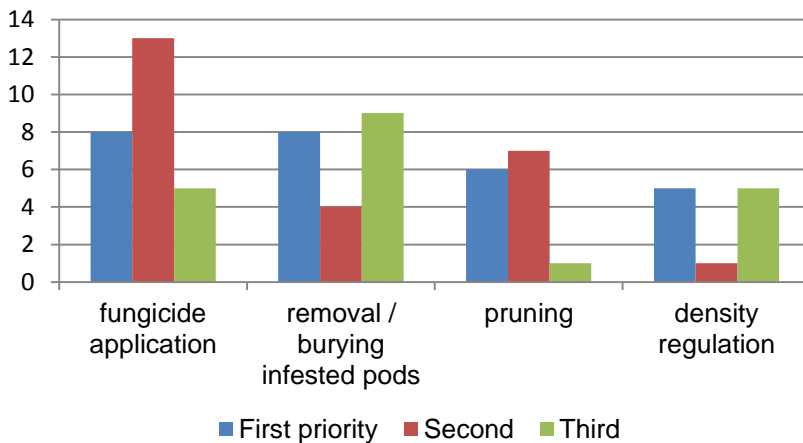
Finally, the question was "what kind of work can children under 15 do on the cocoa farm?"

- work with machetes to break pods
- carry bags of cocoa
- climb on trees to remove mistletoes
- weeding with knives or machetes
- spray pesticides

All respondents answered in the negative, with the exception of three who answered that carrying bags is allowed "if not too heavy". Score: 28/31 (90%)²²

²¹The adoption of shade tree planting is another story. Shade tree seedlings have not been made available to farmers. No farmer is going to replace healthy trees in a full sun plot. Young shade plant care is an additional challenge.

Fig. 10. Methods to combat black pod, in order of priority (31 respondents)



The overall score is 72%, a better result than for their Ghanaian counterparts.

We noted also that a majority (between 18 – 25) of the 30 producers was able to name all the necessary protective equipment (overall with long sleeves, boots, mask/respirator, goggle/face shield, gloves, hat) for spraying agrochemicals. However, nearly all of them are now served by trained spraying gangs of CAADI who carry out the job for a small fee.

It was not possible to gather valid data on acreage, yields and income.

The average reported farm size decreased from 4.5 to 4.1 ha despite farmers' reports on farm expansion. The farm sizes are still based on farmers' old estimates as GPS measurements have not yet been carried out. It is impossible to carry out a monitoring of productivity in the absence of farm mapping and record keeping.

Yield figures are therefore highly uncertain. We arrived at a mean of 320 kg/ha for the present sample of 31 farmers for the 2012-13 harvest (main crop 2012 plus light crop in 2013). Last year's sample contained only 29 (of a total of 49) respondents. Only 14 persons in these two samples are identical for which we note an average yield increase of 47 kg. As these 14 respondents also reported an average "shrinkage" of 0.6 ha of their farms, the rise is unlikely to be of any significance.

From these figures, it is daring to deduce any income figures. It is nevertheless possible to indicate that with baseline information on annual cash income from cocoa (87% of total revenues in the present sample) and on household size (11 persons), the annual gross revenue would amount to around 1,132,000 CFA (1,721 €) or 103,000 (157 €) CFA per head²³.

This is likely to be an underestimation as home-consumed food crops that save money for the household are not taken into account.

CAADI has managed to make progress in reducing side-selling. 28 producers stated that they had sold their main crop exclusively to the cooperative. CAADI delivered 146 t of cocoa to Cargill in the last quarter of 2012. The cooperative then decided to stop the purchase of minor crop cocoa as buying operations would have interfered with training activities. (As mentioned earlier, the manager is one of the lead farmers.)

CAADI is now more well-known: 29 of 30 respondents were able to give the name of the cooperative and 25 know the current president by name (up from 55% and 53%, respectively).

²² Worst Forms of Child Labour do persist in the area, however. On two independent occasions, we happened to observe boys (around 12-14 years old) carry knapsack sprayers to or from the field, but we were unable to identify the cocoa farms.

²³ The mean production is 1358 kg per farm owner and the cocoa floor price for 2012-13 was 725 CFA/kg

When asked about the benefits of training and certification, 26 farmers emphasized productivity gains through various innovations. Five respondents also mentioned some social or environmental benefits (reduction of child labour, protection of operators' health and of the environment).

10 farmers have seen the situation of their cocoa farming improving during the last year, 18 even see big improvements. Many referred to a healthier, tidier appearance of the farm and the productivity gains it translates to. As we have seen in the yield data, we are not able to substantiate this.

When discussing what other relevant changes had occurred in their life as cocoa farmers,

- 7 insisted that after many years of neglect, they are now more self-confident because of up-to-date knowledge and adoption of new techniques;
- 6 mentioned a better relationship with their fellow farmers or even within the household, owing to the sharing during and beyond the farmer field school;
- 4 (male) respondents see their traditional role as breadwinner of the family strengthened;
- 4 affirmed a higher level of consciousness regarding the environment (toxic waste²⁴, latrines, wastewater in the village).

It is noteworthy that nobody made a positive statement with regard to the performance of the cooperative. Page | 32

Problems/disadvantages related to the training and certification elicited a response from 11 of the 30 farmers interviewed:

- Implementation of learning results hampered for lack of labour, i.e. credit (4);
- Training attendance competes temporarily with some other field works, e.g. rice farming (2);
- Doubts about premium payments and the functioning of the cooperative (2),²⁵
- Anticipated prices/premiums are considered insufficient compared to the efforts deployed (2);
- Documentation requirements (1)

No efforts have been done to improve farmers' record keeping skills.

The booklets in use just contain basic data on the operator and sales documentation. The latter will be all important for the distribution of premium.²⁶ There are no worksheets about farm interventions (labour, spraying, tree replanting etc.) such as in the Armajaro (or Continaf) pilots. This is a serious shortcoming in terms of documentation but also for any effort to professionalize producers' farm management.

This year some laudable local initiatives have come into being: in Lahouda and in Boessovoda adult literacy and numeracy evening classes are now offered for a small fee by local school teachers.

The situation of women farmers deserves particular attention.

The rule that only farm owners can become members of the cooperative discriminates against women as they are rarely farm owners²⁷. Only under certain circumstances women inherit land, for instance if there are no sons among the heirs or if these have moved away. It would be very unusual if a cocoa farmer ceded a part of the farm to his wife.

We had the opportunity to discuss with a group of Baoulé women in N'drikro. Baoulé women work on their husband's cocoa farm where they often take the main part in fermentation and drying and also grow food crops. However, as normally all land is owned by their husbands, all proceeds are

²⁴In fact, there is at present no satisfying solution to the disposal problem, as there is no functioning system that would oblige manufacturers to take back used containers

²⁵Caadi is going through its first year of certification, so the first premium will be paid in 2014

²⁶Members of CAADI are also supposed to get receipts for their cocoa sales but we came across numerous examples where farmers had no documentation.

²⁷Our sample contains only two women among 31 interviewees (four in 49 in 2012). In Ghana, there were 14 women among a total of 56.

controlled by the head of the family. Later, we heard interesting comments from men why it is wise that men keep total control: women may not be better money keepers after all; many of them are a bit too free-spending on their own beauty, expensive garments etc. Moreover, men would find it annoying to ask money for their personal needs. They fear long skirmishes over the question “what do you need that for?”...

In the Dioula speaking and the Mossi communities, women are less involved in cocoa growing, but grow food crops or are engaged in petty trading. There are at least two resident ANADER agents in the area, but there has not been any effective support for food crops in the recent past. The trend is on the contrary to reduce diversification further and to grow more cocoa (or, in some areas, rubber). The training initiatives have fuelled some optimism among cocoa farmers who think that the return for cocoa will be much higher than for any food crop so new cocoa is encroaching on suitable areas hitherto reserved for food production. This trend may exacerbate a problem specific to cocoa-dependent farming households in that income sources are not spread evenly across the year. Moreover, this trend damages the interest of women whose options are further curtailed.

Widows or female farm owners have more freedom of action but have an even higher workload than when married. Women are yet to organize themselves into an association for labour sharing schemes. In Bronda, a woman proposed an idea to rent a plot and to grow food crops in association with five other women. However, the idea seemed to have been put forward ad-hoc for the researchers. In other places like Lahouda, women pointed out that land is now so scarce and fragmented that it would even be difficult to rent an appropriate piece of land. In Boessovoda, the Mossi women did not take a very active stance. When it came to specifying activities they would be glad to “follow any proposals if they also could be assisted financially”.

On initiative of the IMS administrator, various committees are to be created on local level. Most of these exist only on paper for the moment, such as the “women’s committees”. In N’drikro however, the one-woman committee has been active and sensitized her neighbours on hygiene and waste disposal. Proposals for some small income-generating projects specifically for women (like village shops for women groups) are in the pipeline - though it is unclear where funds will come from. Activities “for” women look like tokenism as long as the more touchy issues of structural discrimination are not addressed.

Farmers’ perception of the sustainability standards and the certification process remain very vague. Only 11 of 30 farmers said to know the group administrator (“ADG”) and his function. 25 respondents had not heard of the existence of an approval & sanction committee (the president of the cooperative, the group manager, and three appointed members who decide on actions on non-compliance).

Individual interviews revealed big gaps in elementary knowledge about the standards. Only 4 of 30 farmers could give meaningful ideas about some distinctive features of the UTZ standard as opposed to the Rainforest Alliance requirements (such as “productivity” vs. “ecosystem protection” focus.)

19 respondents confessed never to have heard of “Fairtrade”. Three people mentioned the term *commerce équitable* (fair relationships in trade), but could not suggest any key features such as minimum prices or the obligation to pay a fixed premium. Fairtrade certification is scheduled for 2014 which implies that the exclusive agreement with Cargill has to be terminated, as Fairtrade requirements for small producer organizations preclude such exclusivity.

The group discussions we had with participants in N’drikro, Gnandi and Lahouda reinforced the impression that farmers, very much like their Ghanaian colleagues, have a very shallow understanding of the certification system. In the group discussions we expected that most farmers would be able to retrace at least some key elements of the process. We found that the average farmer is not aware that

- The training contents help farmers to improve their farm; however, that it is certification which makes participants eligible to a premium payment;

- There is a management and documentation system in place led by a group administrator;
- It is not the individual farmer but the group who is certified which implies a common responsibility;
- There is formal procedure named internal inspection which is assessed by an “elected” committee;
- An independent external agency checks the results of internal inspections and documentation; it is the standard owner that decides on the certification.

The organizational capacity of CAADI has not seen any improvements since the baseline study. Some observations:

- No producer has paid membership fees or acquired shares; hence, strictly speaking, there are neither members nor owners of CAADI, and farmers have no legal status in the organization. This situation perpetuates the overall perception that the “cooperative” is de facto owned by one person with all risks and rewards that result from that responsibility.
- There has been no general assembly according to cooperative law; decisions on the composition of the board and other decisive issues such as the triple certification initiative have been taken in ordinary meetings by a few dozen people belonging to the “inner circle”.
- The general manager and the warehouse manager reported that they never have been paid; as a matter of fact, salary arrangements are unclear and there are no work contracts; likewise, the delegates have been promised a fee based on the volume of cocoa they deliver from their sections, but this has not been put into practice.
- There is no transparent book-keeping system of revenues and expenditures. There is only one signatory to bank accounts. Assessments are supposed to be carried out both by the deconcentrated services of the Ministry of Agriculture for compliance with the cooperative law and by externally recruited auditors (*commissaries aux comptes*), but quite evidently, these procedures are pure formalities. Thus, it is impossible to assess CAADI’s current financial situation.

The cooperative faces certain difficulties in the field.

The first concerns the haulage of cocoa to the depot in Diégonéfla. As fresh cocoa cannot be left in the field for risk of theft, CAADI’s trucks (owned and let to the cooperative by the president) usually have to go twice: for the fresh cocoa to be fermented in the village and for the fermented, dry cocoa to be transported to CAADI’s depot in Diégonéfla. CAADI’s leaders said that the official margin of 80 CFA for transport²⁸ is insufficient to cover these double journeys.

There is a clear understanding among all actors that the cooperative is supposed to ensure the transport of fresh cocoa whatever the road condition is and what quantities are involved. It is up to the delegates to organize this as efficiently as possible.

There is a legacy of mismanagement in many previous (pseudo-)cooperatives, resulting in low trust in cooperative leaders in general. Another stumbling block is the fresh memories of violent, even deadly, post-electoral clashes in some communities (such as Gnandi) where pro-Gbagbo and pro-Ouattara supporters confronted each other along ethnic lines (Gban vs. Diula speakers). As the political conflict is not solved until today, underlying orientations sometimes interfere with daily operations. When the Gban delegate in Gnandi became a lead farmer (PR) and was replaced by a Diula speaker (who had not qualified as a trainer and had to be “consoled” with another post), the Gban producers avoided the new delegate and conveyed their cocoa to the warehouse themselves. The way the person was imposed was not very sensitive by the cooperative leaders (who themselves are Diula speaking Northerners) and reveals some communication deficits on the ground.

The functions of the delegates (the former *pisteurs* of CAADI) have been widened. Beyond their usual jobs in organizing the transport of cocoa, they are now entrusted with requirements pertaining to traceability. Ideally, quality and integrity of the product are checked locally in the

²⁸ 60 CFA from farm to warehouse and another 20 CFA to the port

sections and bags sealed on the spot. However, central redrying and cleaning in Diégonéfla still occurs regularly. The delegates are also responsible for all kind of communication between the CAADI management and the sections. Within the framework of the certification project, this requires better communication and motivational capacities than before. Several of the delegates seem overburdened by these tasks and would need additional training.

In accordance with the new legislation the system of price/volume reductions (*réfaction*) has been changed to a quality bonus approach: when requirements with regard to foreign matter content, humidity and broken beans are fulfilled a quality bonus will be paid, otherwise the lot will be rejected. For 11 of the 12 shipments to Cargill's factory in Oumé in the last quarter in 2012, a bonus has been paid to CAADI. However, no account has been rendered for these revenues inside the cooperative.

Illegal payments demanded by law enforcement forces at roadblocks persist but are said to be down to "reasonable" amounts, for instance 10,000 CFA for a 25 t truck from Diégonéfla to Oumé.

Many farmers are concerned about payment of the premiums for certified cocoa. Farmers' agreement with CAADI is that the premium will be shared in equal parts between the cooperative and members. Interestingly, in the community of Gnandi, farmers (who otherwise did not know much about certification) were well informed about the amount of the premium. However, CAADI farmers had not been informed that the premium paid is an amount of which costs for trainings and first-year certification have been deducted²⁹.

Two individual cases hold some interesting lessons about the training approach.

Bamba (72) from Diégonéfla is an old Senufo from Korhogo (Northern Côte d'Ivoire). As a young man, he grew cotton in his homeland. He immigrated to the Diégonéfla area more than 30 years ago and started a cocoa farm together with his father. The Farmer Field School, FFS is the first regular training opportunity about cocoa farming in his life. He has been keen to attend the training sessions, but he is currently unhappy because he has been unable to implement much of what he has learned. He has had a sharecropper (*aboussantier*) for the field work during the last six years, but this year he suddenly left "because he wanted to set up a small trading business". In fact, sharecroppers are not geared toward long-term engagements. Over many years, the work input into a cocoa farm has been mainly limited to (post-)harvest operations. With the "new way" where the farm owner imposes an additional workload of tree replanting, more weeding, pruning, or mistletoe removal, the incentives for sharecroppers who only take home a third of the harvest, may simply be insufficient. Regular workers on the other hand are too expensive and usually need to be paid immediately. Bamba is now facing a problem because none of his sons is living in the area. He will try to convince one of them, a cashew farmer in the North, to come and assist him at least temporarily.

His case illustrates a problem around ownership of farms, membership in cooperatives and sharecropping. As many farm owners and members of the cooperative are elderly, uneducated men who often are too weak or ill for regular farm work, they have to disseminate their knowledge to their workers, sharecroppers or family workers, and usually also to supervise the work in the field. In terms of training effectiveness, it seems beneficial to integrate those into the training who actually do the job on the farm. In terms of incentives, the traditional sharecropping model seems ill-adapted to the quest for intensification, and because of rural emigration, there is no large pool of young people just waiting for a job in cocoa farming. On the contrary, low trust, tensions between ethnic groups, widespread fear of theft, and opportunistic behaviour of workers and sharecroppers makes it difficult to include outside actors into the system. The system of *entraide* described in the next case is therefore particularly interesting.

Armand (56) from Lahouda has grown cocoa and coffee since the 1970s. Since he took over his father's farm in 1978 he has expanded the area which is now made up of 2 ha of coffee and 7.5 ha

²⁹ The position of Cargill is to pay a fixed premium to CAADI regardless of the costs to avoid any issue with the farmers (A. Ringo, pers. comm.)

of cocoa along with some smaller plots devoted to food crops. His oldest son, now 25, who did not succeed in school, is likely to take over the farm one day. Armand has achieved a junior high school level and is a very outspoken person. He has previously occupied some leadership positions: as the president of a youth club, as a catechist, as a counsellor to the village chief, and now as the *chef de classe* of the farmer field school. He has also been involved in sensitization on child labour around 10 years ago within the framework of a GTZ project and is presently (as its single member) CAADI's "committee on child labour" in the Lahouda section. He thought that the FFS sessions are too theoretical and initiated practical exercises in groups of 5 (apparently ethnically homogenous) FFS members with a dual purpose: first, members would get the opportunity to enhance their practical skills, in particular with regard to pruning, and second, the shifts on different farms allows the revival of the old system of mutual help (*entraide*) and saves everyone cash outlays for labour. In particular, one older, ill member has benefitted from this arrangement, showing that the labour commitments need not to be strictly mutual. This initiative at the base of the FFS confirms the statement of several interviewees that the learning sessions in the group have created a forum from where farmers start to interact on their own initiative.

Conclusions

Similarly to the Ghanaian Sefwi Wiawso group, the CCE training programme has been successful in imparting basic knowledge about good agricultural, social and environmental practice.

For many farmers who have grown cocoa for decades, the training programme is the first systematic capacity-building initiative they participate in. Not surprisingly, farmers are highly satisfied with this training opportunity and achieved good results in a post-training knowledge test we had integrated into the individual interviews.

We have no own data on the level of adoption of key practices, but the internal inspections that were carried out after the training programme showed that more than 95% of the participants satisfy the (first-year) requirements of the UTZ and Rainforest Alliance standards.

The CCE curriculum is implemented within "farmer field schools" (FFS). This is simply a spot in a conveniently located cocoa field where participants meet for the training and, depending on the subject, practice some skills such as pruning techniques. The use of the term FFS has become settled practice and is used by all local actors, but is nevertheless misleading in the present CCE pilot. Farmer field schools were initiated by the FAO in the 1980s to promote the understanding of agro-ecosystem principles for a more sustainable control of rice pests³⁰. Originally, it is an experimental learning approach where farmers themselves set the research agenda, carry out experiments and regular field observations, and analyze them together with the assistance of a "facilitator". This was a reaction to top-down training concepts where farmers were mere recipients of technology-driven messages that ultimately led them into the pesticide treadmill. Farmers were now supposed to be able to become their own experts in agro-ecosystem analysis and find locally adapted solutions.

FFS in cocoa farming have been championed by IITA's Sustainable Tree Crops Programme and the STCP materials are used in all other Cargill-promoted cooperatives in Côte d'Ivoire. As cocoa is a perennial crop, the focus of FFS turned away from the experimental approach. With the proliferation of sustainability initiatives, the FFS started to cover many other subjects such as the quality of the final produce, social practices and child labour, or even HIV/AIDS sensitization.

The SDF (set-up – delivery – finish) structure of the CCE curriculum on the other hand has clearly delimited objectives, which are building the capacity for certification against a set of externally defined rules in the agricultural, social and environmental domain and to improve productivity. It is flexible only in the sense that topics are chosen freely by promoters.

³⁰J. Pontius et al. (eds.) Ten Years of IPM Training in Asia - From Farmer Field School to Community IPM. FAO 2002

In line with the logic of fast track to certification, monitoring of training quality has been neglected. We believe that despite good initial training results already achieved, there is still ample room for improvements, in particular for the second-year / refresher training:

- Quantitatively, a FFS cycle for cocoa is supposed to last nine months. More responsiveness to individual needs should also have an impact on training effectiveness; for instance, the training could integrate sharecroppers, workers, women and other family members for the reason given in one of the individual cases studied. It could also be worthwhile to divide larger groups according to education or experience level. With more groups however, the workload of trainers would increase and questions arise with regard to their compensation.
- There is at present no monitoring of attendance by individual participants within the IMS. This means that there is no systematic check on whether a given participant could be considered a “graduate” of the “farmer field school”.
- The vast majority of farmers do not comprehend the rationale of the standards, the certification processor the actors involved in its implementation. From a purely pragmatic view, this may have little relevance in the short-term, and farmers’ interest in the “bigger picture” is arguably limited at present. However, it seems hard to imagine farmers’ commitment to the sustainability cause if a sense of ownership in the process is totally absent. Currently, farmers are given the impression that certification is just another market requirement.

The issue of credits for farm inputs has not been solved. Free pesticides are distributed through the regional offices of the Conseil du Café-Cacao (CCC). The quantities offered to the cooperatives are not sufficient and may thus do more harm than good by favouring a minority of members only. CAADI leaders were compelled to go to Gagnoa and directly negotiate supplemental quantities in order to be able to offer all members at least one unit. The current system is prone to favouritism and embezzlement. Other approaches to subsidizing farm inputs for registered cooperatives through partial reimbursements of purchases at registered input dealers are being discussed on national level. Cargill has recently launched its own initiative named Yiri+.

We see a danger that the dependency on cocoa grows further as farmers pin their hopes more and more on the cash crop and expand their farms. The notion of sustainable cocoa does not include a guarantee of high cocoa prices once the productivity goals in the sector are achieved.

Food crops are far from getting the same level of attention and support. This trend is particularly detrimental to women who have hardly access to land and who therefore do not access membership in the cooperative. But instead of micro-projects for women in the context of CAADI, it would be better to address the following issues:

- The fact that delegates do mostly not bother to inform women. Women are not expected to participate in meetings. Our (male) respondents painted a picture that was a bit too rosy as far as the sharing of knowledge with their wives is concerned - which was not confirmed by the women we talked to;
- The relatively low training attendance by women; irrespective of membership status, it is a fact that at least for the Boulé and Gban households, women participate actively in all cocoa farming operations;
- The absence of technical advice and inputs to food crops; without guessing at the actual performance of the local agricultural extension system, liaising the farming households to ANDER (and especially women who are not used to request anything from authorities) is a first step to acknowledge the importance of food crops for farmers’ livelihoods and to implement some basic innovations (such as row planting, improved seed, use of compost etc.)

No progress is observed in the organizational development of the cooperative. CAADI farmers have not departed from the traditional client-patron logic. The transformation of a private enterprise into a member-based organization will be a great challenge. Farmers are not aware of how their cooperative is supposed to work and most of them ignore rights and obligations of members. The government has not yet shown the political will to enforce the cooperative law and credible external

audits on registered cooperatives. Cargill has not undertaken any organizational capacity support. Nevertheless on its website under the heading “The Cargill Cocoa Promise”, the company states: “Cargill plays a key role in establishing farmer organizations if they don’t exist. And if they’re up and running we support them in various ways and run training programs through them.”³¹ This implies that CAADI leaders will benefit from the “coop academy”.

According to training participants, the certification training has been a boost to social cohesion. There is credible evidence of farmer-to-farmer diffusion to non-participating producers and of new labour sharing arrangements. However, when activities are channelled through the cooperative, rumours, miscommunication and ethnic divisions seem to prevail in some communities. Here, voluntary positions in development committees are not well received as “no means of transport and payment are provided”. In this mindset, the cooperative will not be able to act as a development vehicle and promote the well-being of its members beyond the organization of training events.

Farmers are not going to acquire shares as long as the financial management is not transparent, not to mention their limited ability to commit funds on a larger scale. There are simply too many bad experiences with cooperatives in the recent past in an ethno-political setting that remains unstable. Without members’ money, CAADI will continue to depend on the “*patron*”, and on a good management of the premium payments for its operating funds.

³¹[http://www.cargillcocoachocolate.com/sustainable-cocoa/the-cargill-cocoa-promise/1-farmer-training /index.htm](http://www.cargillcocoachocolate.com/sustainable-cocoa/the-cargill-cocoa-promise/1-farmer-training/index.htm), accessed on 22/11/13. A “Coop Academy” has been created for this purpose. The group manager in CAADI has volunteered to prepare a manual for cooperative procedures (unused), but organizational advice to the cooperative is not part of his job.

Nigeria

The Nigerian CCE pilot sampled farmers from the Kokodola project (Yoruba for "cocoa for a wealthy life"), a four years cocoa sustainability initiative of Continaf co-financed by chocolate maker Ferrero, cocoa processor Petra Foods, the NGO Oxfam Novib, and co-implemented by the Nigerian Farmers Development Union (FADU). Sustainable Trade Initiatives (IDH) provided match funding from its Cocoa Productivity and Quality Program (CPQP).

The project officially started its activities in April 2012 and aims to reach out to at least 7,500 farmers. The goal of the project "is to create a growing sustainable and efficient value chain for certified cocoa thereby improving social, economic and environmental conditions of the Nigerian Cocoa Farmers in Osun and Ondo States."³²

A description of the project's purpose and activities is given in detail on its website:

"The objectives of the project are:

- Improve cocoa production and quality
- Improve access to finance and agricultural inputs
- Professionalize farmer groups
- Address social issues to empower vulnerable groups and improve livelihoods

Project activities and results include:

- Training in Good Agricultural; Social; Business and Environmental Practices plus training in Internal Management System
- Upscale demonstration plots and nurseries to work on rejuvenation of old farms using improved high yielding varieties
- Facilitate access to tailor-made micro-credit services to small holder farmers for financing agric-inputs
- Support small cocoa farmers in advocacy efforts to improve the regulatory, infrastructural and institutional environment of cocoa production and trade in Nigeria, specifically in Ondo and Osun states
- Involve youth (18-35 yrs) and women in all project activities
- Liaise with inputs suppliers (agro chemicals and fertilizers)
- Train farmers on social issues, in particular child labour prevention and gender justice
- Promote sustainable cocoa production and trade in Nigeria
- Exchange best practices and successful models in line with the key elements of the Round Table Sustainable Cocoa Economy
- Capacity building of the organisation to develop adequate services to support cocoa farmers"

The project is headquartered in FADU's office in Ibadan. Its intervention zones are grouped into the three areas of Apomu, Modakeke (where the central warehouse is located) and Ilesha. The communities are located at 1-2 hours drive from Ibadan.

Currently, Kokodola is working with 4081 farmers organized into 117 Farmer Credit Associations (FCA) under FADU.

The Farmers Development Union (FADU) is a rural micro-finance organization created, owned, financed and governed by its rural members. Members are people living in rural areas, i.e. mostly farmers, in 29 of the 36 states of Nigeria farmers. FADU was registered as an NGO in December 1990.

FADU has a structure with several tiers. The basic entity is a Farmer Credit Society (FCS) typically composed of 10 people who meet regularly to collect savings and to give out small loans according

³²<http://kokodola.org/> (accessed on 18/10/13)

to internally agreed terms. The group has a chairman, a financial secretary and treasurer. Several FCS come together to form a Farmer Credit Association (FCA), a structure represented by the group delegates who meet on a monthly schedule. There are also higher-level entities in the districts and above. FADU, as the apex body, provides credit to the FCAs.

FADU field officers facilitate group formation, train the group leaders in financial management and record keeping and monitor the groups on the ground. Membership is based on affinity and voluntariness. Regular attendance of meetings and respecting the savings schedule is a precondition for participation.

FADU's long standing presence in cocoa communities was chosen as an entry point for the Kokodola certification initiative. The farmer field schools for the certification training were set up in parallel with the savings groups. The FFS are typically composed of around 30 participants who are divided into several FCS. It seems that most FCS/FCA have been created anew for the purpose of the project, as previous groups were not active or were not specifically geared to cocoa farmers.

Implementation of the training

Farmer trainers were suggested by project field officers among the members of the prospective societies. These lead farmers should:

- have basic literacy skills;
- be farm owners with good technical knowledge and motivation;
- be respected in the community; and be available.

Selected lead farmers and the IMS staff were trained in separate groups by Solidaridad Nigeria. Farmer training started in mid-2012 and was implemented by lead farmers in farmer field schools.

The IMS has a group manager for each project area and one central documentation officer. The approval and sanction committee is composed of 7 elected members from the three intervention areas.

The project consortium decided to aim for the UTZ standard only. Late 2012, in total 1,661 farmers were certified. In 2013, lead farmer training was carried out by the company trainers. A second wave of farmer training has included an additional 2,420 producers. 24% of the total are women, whereby a difference in women participation can be observed between Muslim and Christian areas.

The training and certification activities are retraced in table 6.

Tab. 6. Training implementation in the Kokodola project

Who	Period	Remarks
Two Continaf staff trained by Solidaridad	Two weeks in November 2011	Part of the national master ToT in Nigeria
54 lead farmers (one group) and 8 FADU field supervisors, 3 group administrators and 3 accountants (second group)	10 days for each group in May 2012	IMS and CCE curriculum for both groups
Farmer training for 1778 producers by lead farmers and FADU field officers	Up to 16 training days in farmer field schools (June – November 2012)	GAP, GEP, GSP and GBP
3 field supervisors attend second master TOT organized by Solidaridad	10 days in June 2012	IMS and CCE curriculum
Field supervisors and lead farmers carry out internal inspections	August 2012	1,661 farmers inspected

Who	Period	Remarks
Baseline study by CCE consultants	9 days in October 2012	107 individual interviews in 5 communities
Preaudit by external consultant	26 – 29 November 2012	
External audit	10 – 14 December 2012	
Certification (Utz) of 1661 (of 1778) farmers	December 2012	117 had not been around during internal inspections; these farmers still participate in 2013
Refresher training for all field supervisors by STCP/CLP Country Manager	7-9 February 2013	A refresher training for 11 +1 Project Officers on CCE curriculum and Certification Standards
Training of “pruning gangs” for the first year FCAs (21 persons) by project field officers	1 day in June 2013	Use of chainsaws to remove excessive shade trees and to reduce dense canopies
Training of 78 local buyers by the procurement team	1 day in Dec. 2012 1 day in June 2013	Traceability, weighing, bagging, documentation
Training of spraying gangs (31 persons) by CropLife	2 weeks in July 2013	Use of agrochemicals
Handout of Utz premiums to farmers	May 2013 (Ibadan): Farmers paid premiums during Kokodola Farmers’ Day in Ibadan in Ibadan.	Public event. Awards to the best farmer (groups)
Refresher farmer training in the first year FCAs	March-August 2013	
Upscaling of the programme: 63 new LF trained by field officers	12 days February 2013	
2,420 new farmers in 63 FCAs trained in FFS	March – November 2013 in 16 sessions	Topics in curriculum as in 2012
Field supervisors and lead farmers carry out internal inspections in all 117 FCA	August- September 2013	261 farmers left/dead
External audit	November 2013	
Certification	Scheduled for December 2013	

Results of individual and group interviews

A relatively large sample of 107 farmers in five communities (Ayepe, Alagbonrin, Ologan, Ayegunle and Iloba) had been interviewed with the standardized questionnaire in 2012.

For this follow-up study, we were able to carry out 46 interviews (40 male and 6 female respondents) among the original 107 farmers sample during the given time frame of 6 days in the field.

Some key points from last year’s interviews were:

- Dependency on cocoa is lower than in Ghana or Côte d’Ivoire (an estimated 43% of total income), i.e. agricultural activities are more diversified (oil palms are a widespread second cash crop).
- Both farms (37 years) and farmers (57 years) are comparatively advanced in age.
- Access to credit and inputs was surprisingly limited (44% said that they had no access to them at all), despite membership in FADU groups.
- Spraying of chemicals was at worrying levels (a mean of 8 applications a year).

Again, individual interviews started with the question what changes farmers had implemented in their farm operations during the past year. The most significant items are shown in fig. 11.

Significantly, 35 farmers reported reductions in use of agrochemicals. Eight respondents also pointed out that they had discontinued the use of illegal agrochemicals such as Gamalin (a herbicide) or copper compounds.

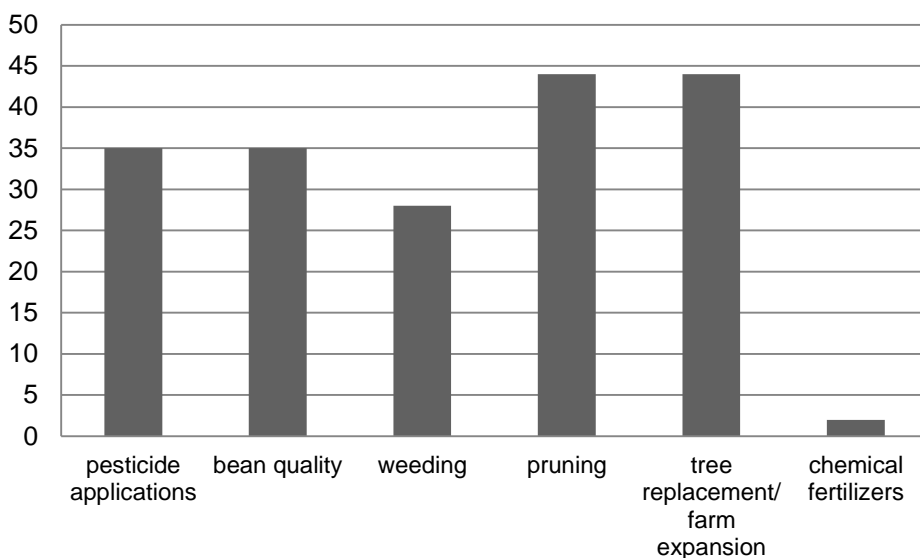
35 farmers stated to ferment cocoa beans correctly during six days now whereas previously, this took them anything between one and four days.

Intensified weeding was reported in 28 cases, probably correlated with the reduced use of herbicides.

Virtually all farmers reported to have changed something in their conception of pruning though it remains doubtful to what extent they can carry it out effectively. Trees are old and have grown high. Excessive shading is a widespread problem. The project has trained village “pruning gangs”, equipped with chain saws who take over the cumbersome tasks of removing excess shade trees and adjusting the cocoa tree canopy.

As an alternative to tree replacement, project staff that just have come back from a one month training at Mars’ cocoa training centre in Indonesia will promote side grafting as a technique for rejuvenating cocoa stands.

Fig. 11. Changes to farm operations during the last 12 months (46 respondents, multiple responses)



Tree replacements / farm expansion have been carried out by basically all farmers albeit on a small scale (70 and 57 trees, respectively, for an average farm size of 5.6 acres). At theoretical densities of 1,300 trees/ha, this corresponds to a replacement rate of 2%.

Farmers did not have access to improved seed material prior to Kokodola. CRIN hybrids have been distributed both in 2012 and 2013. The seeds are pregerminated in raised beds and grown in polyethylene bags in small community nurseries. So far, demand largely outstrips the number of pods offered. On average, less than a three-digit number of seedlings is available to farmers. 33 out of the 44 farmers have benefited from the seed supply, while 11 had resorted to their own seed.

Only two farmers had started experimenting with fertilizer. Cocoa-specific fertilizer is available at the project and sold at market prices (6,800 Naira a bag). Four bags of 50 kg – the recommended application rate per ha – amount to an investment of 130 € per ha; reason for the reluctance of farmers to use fertilizer. Moreover, in the case of old cocoa tree populations of limited genetic potential, there is no economic rationale for fertilizer use. Only for newly planted trees, the cost for application of fertilizer may be easily compensated for by increased productivity.

In 2012, the project had granted input supply credit for agrochemicals to the savings societies. Farmers generally received the quantities requested and were to reimburse in cash. However, many farmers have defaulted on their credits because many of the newly created FCAs and new project staff members were badly informed on how the FADU credit system worked and how to

assess the groups. There was also poor administration of the loans given out. Extra training was given end of 2013 by FADU and experienced FADU staff members are now to always accompany newly recruited staff when mobilising, setting up and monitoring FCAs.

40 respondents confirmed to have received both free cocoa plants and pesticides through the project. 14 farmers have taken the opportunity to purchase subsidized personal protective equipment.

33 of the 46 farmers stated that they had taken loans during the past year. This is a higher proportion than could be expected from the 2012 baseline, where 52% of respondents reported to be in need of credit for farming activities. However, only 19 of the 33 farmers had got a loan from their savings groups. 16 respondents had received credit from a local cocoa buyer outside the project.

Group interviews revealed that many community members are indebted to local cocoa traders. These small traders are very actively reaching out to farmers, offering small or bigger emergency credits at any time, to be paid back in cocoa. At face value, there is no interest rate, but farmers are price takers and traders commonly tamper with the scales. In this system, there is no reward for better bean quality. These obligations make project farmers sell to other parties than Continaf.

FFS training

Training frequency in the FFS has been high. Some participants reported to have attended up to 24 sessions in 2012³³. In the second year, the FFS are supposed to be followed up by monitoring visits by field supervisors. However, lead farmers said that they had continued the FFS on their own in the second year. The average number of sessions attended was 14 in both years. 37 of 45 farmers declared to be entirely satisfied by the training offered in the FFS. A few participants said that they are interested to learn more about health issues, but otherwise, nobody had any suggestions to improve the courses.

Lead farmers do not get incentives other than their own capacity-building and the recognition in their communities, but all their expenses incurred during the ToT and for monthly meetings are paid by the project. First-year lead farmers also received personal protective gear for free (worth around 3,500 NGN).

Previously, monthly meetings of lead farmers took place in Ibadan for evaluating the schools and exchange lessons but because of the high costs related to transporting and the ever increasing number of lead farmers, they are now organized in different locations in the three project areas. In addition to these meetings, the project field supervisors carry out backstopping to FFS sessions, but in the 5 FFS we visited, such monitoring visits occurred rarely. Lead farmer performance has not been assessed formally, and knowledge tests of farmers have not been tried out, neither. These kinds of activities would help the project better monitor the quality of the FFS, as the field supervisors do not join/lead each FFS anymore.

Three of the four lead farmers we interviewed seemed satisfied with the current situation; one of them was however frustrated and demanded to be paid by the project in the future. Currently, the project is discussing an adequate incentive package.

A short knowledge test carried out within the individual interviews gave the following results:

³³ The planned number of training days was 16, but some sessions have been repeated for those absent. The most diligent farmers have been present at all events.

Farmers' age criterion for replacing a cocoa tree was 39 years on average with a range from 10 to not less than 100 years. For some, a cocoa tree is not simply a production unit but a cherished heritage. 12 of 45 respondents gave an age between 25 and 35 years or a productivity indicator of at least 10 pods.

Score: 27%.

The recommended planting distance was specified correctly as being 3 X 3 m by 40 of the 45 respondents.

Score: 89%

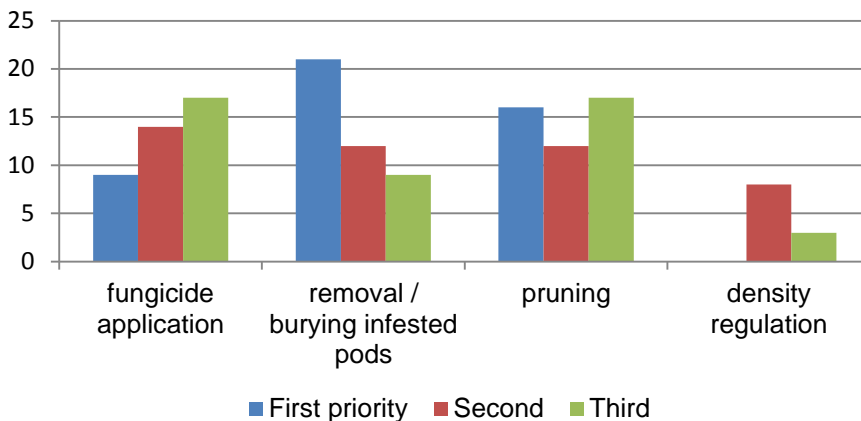
The question about the benefits of shade trees has another connotation in the local context than in the Ghanaian or Côte d'Ivoire farms. Here, there is usually an excess of shade due to intercropping with oil palms and the absence of systematic pruning over many years. Farmers we visited had not resorted to the services of the pruning gangs.

33 of 45 farmers mentioned at least three relevant functions of shade trees. Score: 73%

For the control of black pod, a majority of 36 farmers opt for sanitation or pruning as the primary approach to reduce the incidence of the disease (fig. 12). This is certainly a significant advance in comparison to the indiscriminate use of agrochemicals before the training and confirms farmers' accounts of reduced reliance on chemicals.³⁴

Score: 80%

Fig. 12. Methods to combat black pod, in order of priority (46 respondents)



The vast majority of farmers know how pesticides enter the human body. Score: 92%.

Finally, the question about what kind of work children under 15 can do on the cocoa farm gave the following results:

- A - work with machetes to break pods: 11 yes
- B - carry bags of cocoa: 2 yes
- C - climb on trees to remove mistletoes: 1 yes
- D - weeding with knives or machetes: 12 yes
- E - spray pesticides: 1 yes

We required that farmers said “No” to all answer options.

The issue has apparently not been emphasized much in the farmer field schools. However, the weaknesses are concentrated in a minority of respondents. (Those who said yes to A also said yes

³⁴40 of 45 farmers stated to have a set of personal protective equipment. 10 stated to resort at least partially to the spraying gangs trained by the project.

to D.) It should be noted that Nigeria does not have an awareness-raising programme on child labour like Ghana and in particular Côte d'Ivoire have had the last few years.
Score: 34/46 (74%)

The overall score is 73%, a good result on par with the FFS participants in Côte d'Ivoire.

Most FFS participants confirmed to have had an exchange with other persons: 24 said to discuss training contents with their spouse, 28 with workers, and 36 with other training participants, respectively. Even more (39 of 46) had shared ideas and given advice to non-participants, with pruning techniques, responsible use of agrochemicals and correct fermentation/drying being the hottest topics. These testimonials of a quite lively exchange between community members are in line with what we observed in the other pilot groups, too.

The expected benefits of adhering to the training programme was concentrated on higher prices and premiums (30 responses), whereas the knowledge/higher productivity aspect was pointed out by only 16 respondents. Just three people mentioned the access to inputs, and two people explicitly referred to the possibility to participate in the savings groups.

When asked to articulate problems in relation to the participation in the programme, most respondents highlighted the cost of implementation of improvements in terms of higher labour costs (20 responses). There were no other significant constraints in the perception of farmers. Five people mentioned that timing of training may conflict with church services (which may take place at any day).

Farmers' knowledge about the rationale and process of certification is not more advanced than in the Ghanaian or Ivorian groups (cf. p. 22, 34). Training sessions did not deal with the "steps to certification" in any depth. During initial meetings, the initiators of the project focused on productivity goals and offered to provide seedlings for rejuvenating the stocks. Premium payments were also discussed explicitly.

The low attention given to the certification process is compounded by a lack of consistent translations of technical terms like certification, inspection, standard etc. into Yoruba. For instance, we repeatedly encountered difficulties when talking with lead farmers about inspections, which they mixed up with follow-up visits to fellow farmers.

Farmers who signed individual contracts with Continaf got clear specifications of quality parameters for bean quality. The UTZ premium was not specified but left to an "agreement" at the beginning of the season without stating what parties are to reach at an agreement. Premium handouts were calculated from volumes received from each producer. Farmers can check the amount due provided that their record books are kept up to date.

26 of the interview respondents interpret the premium as a compensation for compliance with the production rules, whereas 11 believe that it is a bean quality bonus; the remaining 9 participants did not have a clear notion of the premium. Some farmers voiced the (false) idea that they are only entitled to a premium if they deliver "large" quantities. On the other side, a few others believe that they should receive the payment even if they had not sold to the company at all³⁵.

Savings groups and marketing

All respondents participate in FADU's self-managed groups. The FCS set their own interest rate, savings rates, meeting schedules and membership conditions. The groups expressed a strong preference for productive loan purposes, but conceded said it would be possible to receive money

³⁵ There is no explicit obligation in the contracts to sell the cocoa to Continaf.

in case of emergencies such as hospitalization (but definitely not for funerals or weddings etc.) Most often, farmers use the loans to pay labour. Women often use funds for petty trading.

In four of the five communities, members expressed high satisfaction with the savings scheme. The money is usually kept in a bank in the district capitals, but in remote communities, all the cash may stay with the treasurer. Project Field Supervisors revisit groups regularly. Members insisted that the loan recovery rate is very high because of social pressure, but also because of the pre-selection of members based on character assessment and on a track history in loan repayments.

The embryonic credit services offered to members are unlike to have a significant impact on productivity enhancements at the moment. 5,000 NGN does not pay a bag of fertilizer and cost borrowers 900 NGN after 6 months. Six months hardly cover the period from early year inputs for cocoa to the following main crop in October/November so that farmers in unforeseen cases may again have to resort to external sources (such as the notorious small traders) in order to stay in the savings group. When asked whether the credit services should not be more flexible to serve the individual needs of the members, the general opinion is that it is better to rotate smaller amounts of money in a shorter time since all members are waiting impatiently for their turn.

The difference to previous FADU groups seems to be that there is now a sense of purpose connected to the FFS and the prospects of a more productive cocoa farm. Page | 46

In the individual interviews, 19 respondents said that the priority of FADU should be to provide funds to saving groups. Another ten farmers wanted to see the input supply programme extended or resumed. Four people suggested more regular follow-up farm visits. Another four persons asked for scales, as there are no Continaf buyers or “satellite” warehouses in some of the communities.

There is no reliable information on the performance of Farmer Credit Associations before the project, but FADU had clearly communicated to the nascent groups that future loan disbursements hinge on groups’ performances in terms of meeting schedule, savings discipline, and recovery rates.

In the fully liberalized cocoa sector in Nigeria, the built-up of stable relationships with producers is a challenge. There are no special requirements to become a local buying agent or middleman for the purchase of cocoa. The modus operandi of these resembles the *traitants* and *pisteurs* in Côte d’Ivoire. They sell on to wholesalers who do business with the exporters.

The communities were asked to appoint their own buying agent this could be a farmer part of the FFS or an already existing buyer. In two of the five communities visited, the communities experienced problems with “their” buyer who basically had disappeared with the money. This year, the company has taken a far more conservative approach. Procurement officers are seconded for monitoring the purchases.

Theft in the fields makes it imperative that the harvested pods are brought to the village for fermentation (or to camps in remote zones), usually carried on the back or on motorbikes, as feeder roads are mostly inaccessible for vehicles.

On average, the interviewed farmers estimated to have sold two third of their production to other buyers than Continaf. An important reason given by the farmers is the easy and immediate access to small loans during the lean period. Sometimes, the buyer is a close relative. The savings associations have hitherto not been able to make a difference in this respect. The implication for the farmers is that they will not or only partially be paid the premium.

Farmers do not get any receipt for their sales³⁶, but any transaction is supposed to be entered in farmers’ diary book. This is important for the farmer as the quantities accounted for are a means of

³⁶ Except if they sell directly to Continaf at the central warehouse, in which case they use a “traceability report sheet” on their own

verification for the calculation of premiums. 9 farmers in our sample stated not to have received a premium despite having delivered some quantity of cocoa to the company, or more precisely, to the designated buying agent who was supposed to sell the cocoa to Continaf. It was not possible to clarify the causes, but some may be related to the misconception of some farmers about eligibility.

The mean farm size according to our individual interviews is 5.6 acres or 2.2 ha, which is coherent with the 2012 baseline data. 19 respondents said that the figures are based on GPS measurements.

The calculated cocoa yield for 2012-13 was 105 kg/acre or 262 kg/hectare. This is quite low but nevertheless in the reported (lower) range of productivity in Nigeria³⁷.

The project has recorded yields of 276kg/ha for the 2012-13 and 387 kg/ha for the 2013-14 crop, respectively.

Kokodola officially targets a productivity of 1,000 kg/ha – certainly very ambitious given the currently low replacement rates of trees and the absence of fertilizer use.

Kokodola's Farmer Diary is a potentially useful personal record book with worksheets on farm data, training attendance, extension support, farm maintenance, replanting, fertilizer application, IPM, equipment maintenance and sales records. The farmers we interviewed generally do not make use of the books as a management tool. They are either kept by the buyer, a Project Field Supervisor lead farmer, but are rarely with its owner. The few books that we were able to see were just used for recording coca sales to Continaf. Record keeping (and financial) skills remain underdeveloped in all three pilot groups.

When it comes to estimating gross income, we base our admittedly very crude model on the average household size of 7 persons and a proportion of 43% of cocoa contributing to total income. Estimating the mean farmgate price (cocoa prices have risen to 385 NGN recently) across 2012-2013 to be 325 NGN, this results in a gross revenue of around 432,000 Naira per year for the cocoa farming household (61,800 NGN per person – or 294 Euro per year³⁸). Again, it must be emphasized that the value of home consumed crops are not taken into account.

The overall judgment of the current situation of cocoa farming is nevertheless very positive. 5 participants said that it had improved over the last year, 39 have even seen “big improvements”. This implies that in farmers' perception, the financial situation described above is already a better one than before. The common reasoning of the producers is founded on higher productivity-yield-income (35 responses), 6 producers added that the farm is “tidy” and looks “healthy”. Four people said that they had received higher prices than expected.

When asked what specific changes had occurred during the last year, farmers confirmed improvements in income-relevant indicators such as reduced debts or the ability to pay school fees (fig. 13).

The training programme has certainly managed to enhance farmers' commitment to cocoa farming, but it remains a largely male-dominated cash crop. Women have been encouraged by Project Field Supervisors to participate in the FCS and to join the FFS. Still, they are underrepresented in the groups. Our sample of 46 farmers contained six women and among the currently 117 lead farmers,

³⁷A recent FAO report indicates that average national yields in 2007-2010 were below 300 kg/ha: FAO (2013) Analysis of incentives and disincentives for cocoa in Nigeria (http://www.fao.org/fileadmin/templates/mafap/documents/technical_notes/NIGERIA/NIGERIA_Technical_Note_COCAO_EN_Feb2013.pdf, accessed on 25/10/13).

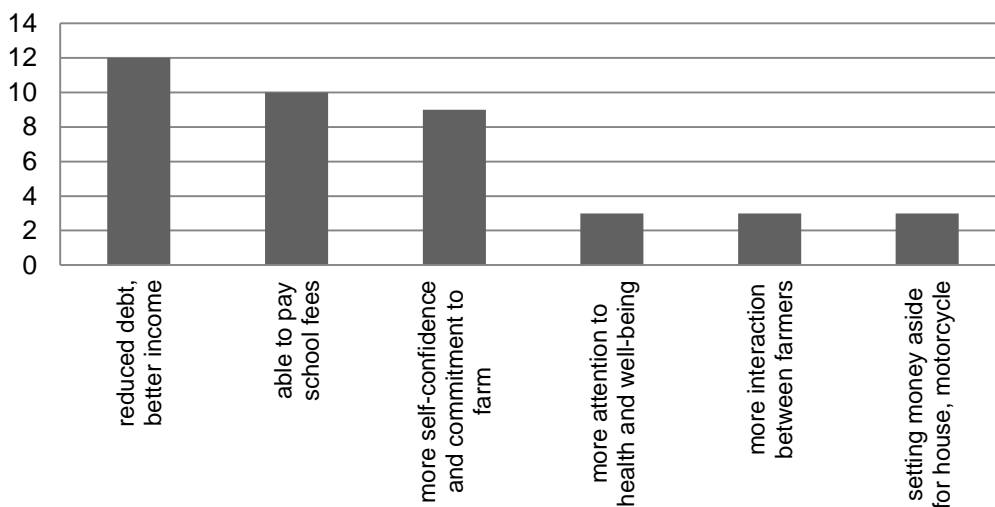
B.O. Adisa and K.A. Adeloje(2012) quote a current estimate of 300-350 kg/ha in: Analysis of Farmer Field School as an Extension Approach to Cocoa Production in Osun State, Nigeria (<http://www.idosi.org/wjas/wjas8%284%2912/14.pdf>, accessed on 25/11/13)

³⁸ The production is 572 kg

just four are female. There have been no specific activities geared toward women or concerning gender justice in the communities we visited.

The livelihoods outcomes for women are similar to the situation in Côte d'Ivoire. Access to land and alternative income-generating activities is very limited. The Nigerian Land Administration Act is egalitarian, but it is not culturally or legally enforced. Income from farming is usually fully controlled by the (male) head of the family. Households headed by women face higher labour costs because of the high level of multi-tasking of women. It was also pointed out in group discussions that women farmers have more difficulties to obtain favourable terms when dealing with workers. Local cocoa farm workers are recruited among a pool of itinerant workers, mostly Nigerians from other states, who rent accommodation for a few months during the main season. Work contracts are verbal, flexible, and negotiated in view of the tasks at hand. Pruning and spraying should be available from the service providers trained by the project, but weeding is a costly item of expenditure.

Fig. 13. Farmers' perception of changes (46 respondents, most important categories of answers)



Income from agriculture is more diversified than in the Ghana and Côte d'Ivoire pilots. Women are relatively more engaged in oil palm farming and processing than in cocoa. The savings groups have opened up some opportunities in petty trading, but food crops (plantain, cocoyam, vegetables) remain the economic mainstay for women. However, technical support for food crops is basically inexistent. Kokodola do has a basic relationship with the state agricultural extension system. Two extension officers who work as a kind of entry point to their agency have participated in the CCE ToT training, but given their workload they do not carry out any extension work in the field within Kokodola.

Conclusions

The Kokodola project farmers have many features in common with the farmers in Sefwi Wiawso in Ghana and in the Diégonéfla cooperative in Côte d'Ivoire:

- Farmers are very motivated and have achieved good learning results through the CCE training; in particular, a more rational use (i.e. reduction) of pesticides and quality improvements have been adopted by the Nigerian farmers.
- Certification as a system and process is not understood by participants, as very little attention is given to the overarching aspects of the CCE training; in fact, it is apparently not seen as relevant by the trainers.
- Farmers are yet to be initiated into effective record keeping. A specific financial skills training for cocoa farm management would be a good complement to the CCE training, and FADU's savings groups would be a good entry point.

The set-up of Kokodola with farmer field schools, lead farmers, and savings groups - implemented by a large farmer organization and monitored by trained field staff - is basically very favourable for serving a wider range of farmers' needs, both in terms of capacity-building and farm-related services. The perspective to make a difference in farmers' lives has been more clearly designed than in other initiatives where the sole objective seems to be to fast-track certification for current marketing requirements. However, in the communities we visited, the project has yet to make an impact on some of the wider development objectives, such as a stronger involvement of women, gender justice or other social issues, as stated in the project's list of activities and results.

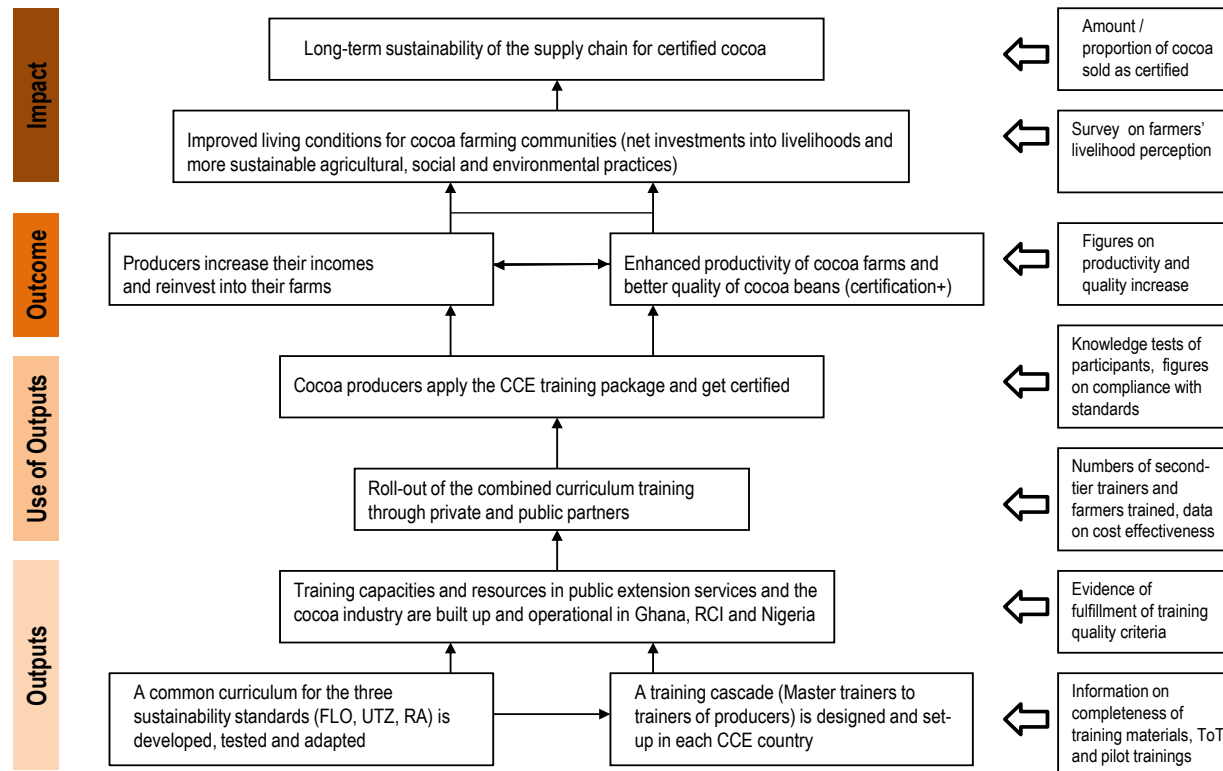
A legacy of debts of farmers to local traders and the liberalized marketing system of cocoa make investments into effective services to farmers a challenge. The farmers we interviewed had sold a significant part of their cocoa to competing buyers and many farmers defaulted on input credits. Problems also occurred with the pre-financing of community-elected buyers in two of the communities we interviewed. Input credits and pre-financing of buyers are now reduced. Likewise, credit to savings groups by FADU's apex structure is not scheduled before an assessment of the savings behaviour of the new groups and will earliest be available to some of them in the third year of operation.

With regard to the evolution of cocoa yield, short-term studies are unlikely to provide reliable data. Only a regular follow-up of a representative sample of producers would give credible information on the dynamics of productivity. With regard to records on farm management, well-conceived record books have been distributed that would serve monitoring purposes well, but the farmers we have visited have not been trained to use them. Financial skills for cocoa farm management could be developed within the FADU savings groups.

Annexes

Annex 1. Impact chain of CCE

Results chain model for CCE



Annex 2. Baseline indicators of CCE

Indicator	Means of verification	Responsibilities
At least 75 % (first year, 90% in the second year) of trained producers (men and women) produce according to the sustainability standards and have been certified upon first inspection	Inspection reports, certificates	Companies
The replacement rate of old unproductive trees increases by X % annually on certified farms.	Direct data from field research and statistics on distribution/sales of quality seedlings (e.g., COCOBOD)	Extension agencies, companies
Average yields (t/ha/y) on certified farms increase by 20%/year during the first 3 years after the training	Interview with farmers, IMS data	Companies, extension services
The percentage of grade 1/2 beans is X% higher in certified beans as compared to a baseline taken before the training	Internal statistics about physical features and moisture level	Companies
The trend in producers' perceptions of their livelihoods is increasingly positive	Baseline survey	M&E consultant / local surveyor
At least 50% of the organized curriculum training against one or more standards is based on the active request by farming communities.	Internal documentation on requests from producers	Extension agencies, companies
At least 90% of the production is sold through the certification channel.	IMS data (yield estimates or information from farmers)	Companies