



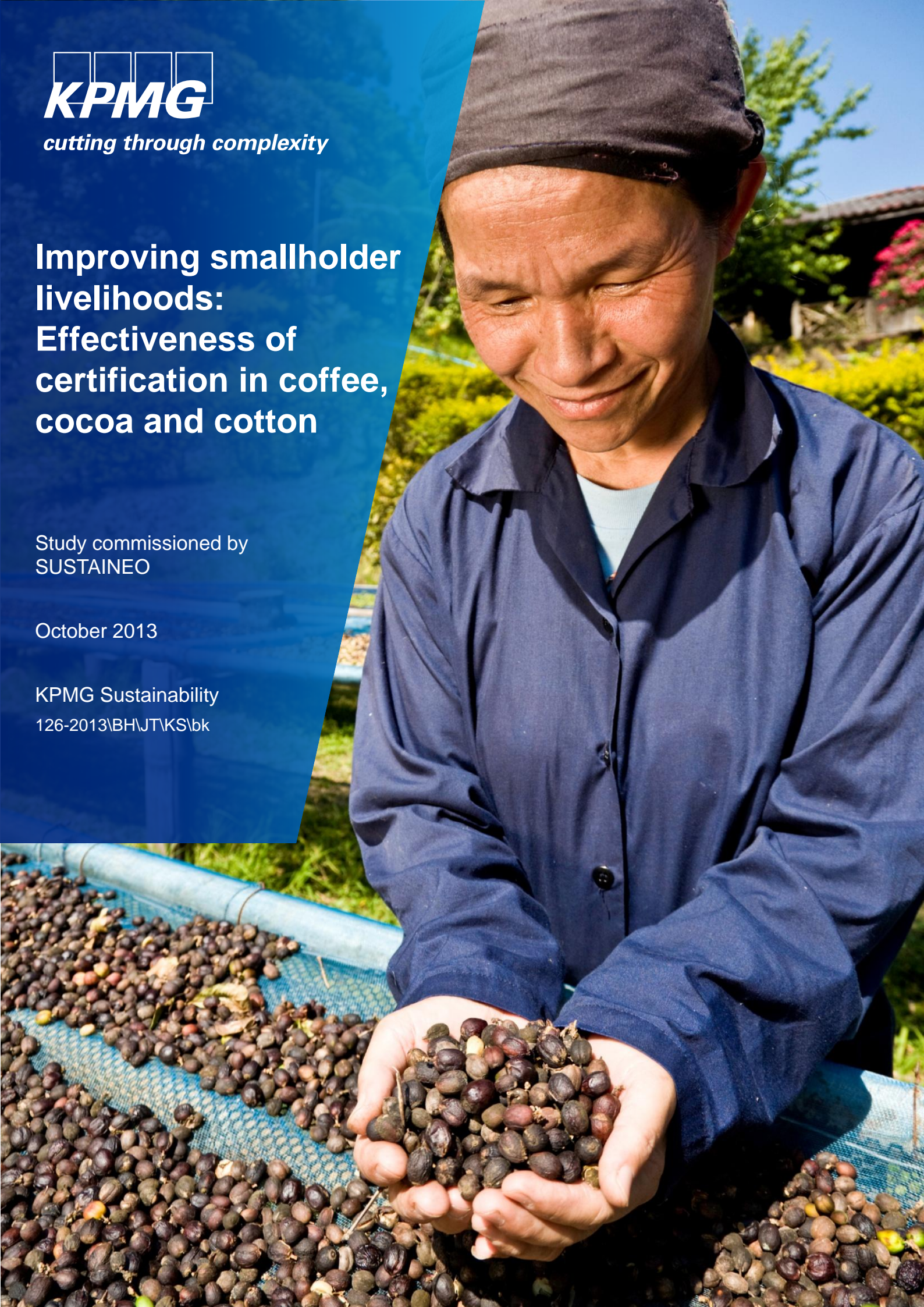
cutting through complexity

Improving smallholder livelihoods: Effectiveness of certification in coffee, cocoa and cotton

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Abbreviations

BCI	Better Cotton Initiative
CmiA	Cotton made in Africa
4C	Common Code of the Coffee Community
FLO	Fairtrade Labelling Organization
GMO	Genetically Modified Organisms
IFOAM	International Federation of Organic Agriculture Movements
ISEAL	The global association for social and environmental standards
MSC	Marine Stewardship Council
NGO	Non-Governmental Organization
RA	Rainforest Alliance
SAN	Sustainable Agriculture Network
UTZ	UTZ Certified

Executive summary

Sustained wants to improve smallholder livelihoods

In view of the growing role of ‘sustainability certifications’ in the commodities cotton, cocoa and coffee, SUSTAINED, a joint initiative of the three founders and entrepreneurs Dr. Michael Otto, Dr. Joh. Christian Jacobs and Michael R. Neumann aims to understand to what extent certification can help to improve smallholder livelihoods.

This report evaluates the effectiveness of certification in improving smallholder livelihoods in the coffee, cocoa and cotton sectors based on a comparison of standard systems, a literature study and interviews with experts in the field. Feedback provided by representatives of the certification/verification schemes in scope is incorporated.

Verification schemes adopt a more step-wise approach

Overall, the set-up, way of functioning and criteria of certification systems do not differ significantly. However we can distinguish between certification schemes (Fairtrade, UTZ, SAN/Rainforest Alliance, Organic) which have a higher entry level and issue a certificate based on farmers’ compliance with their list of criteria and verification schemes (4C, CmiA, BCI) which adopt a step-wise approach, combining a lower entry level with continuous improvement requirements. Verification schemes also do not focus on premiums.

Lack of transparency

In general, schemes lack transparency with respect to the robustness of their internal control systems, the distribution of premiums along the supply chain and the impact of certification on smallholder livelihoods, including the effects of multi-certification. The extent of disclosure on these issues varies per scheme.

Not all farmers can benefit equally from certification

Evidence from the interviews suggests that the farmers currently included in certification tend to be the so-called ‘low-hanging fruits’ or farmers that can be certified most easily. The inclusion of farmers in certification depends significantly on whether they are organized. However, estimates suggest that only 10-25% of smallholders in cocoa and coffee are part of a producer group. While organization in farmer groups constitutes a key barrier for certification in coffee and cocoa, the contract farming model applied by CmiA and BCI in the cotton sector allows to include all (also poor) farmers in a given area.

Not all certified or verified coffee, cocoa and cotton is sold as such by farmers

Looking at the volumes of certified products compared to total world production, it appears that the uptake of certification is still less than 50%. This means that more than 50% of the certified or verified coffee, cocoa and cotton produced according to the administration of the schemes is not sold as such. This effect is caused by a lack of demand and multi-certification. As a consequence, certified farmers or producer organizations miss the premium after having invested in more sustainable farming practices, improved administration and audits.

Certification is effective in improving access to training and the farmer economy

Despite the significant amounts of money invested in certification, evidence in the form of systematic impact assessments at farm level is limited. The report assesses the improvement of smallholder livelihoods through the dimensions ‘access to education and training’, ‘farmer economy’, ‘working conditions, including child labor’, ‘gender equality’ and ‘democratic

decision-making in producer groups'. According to literature and interviews, smallholders included in certification experience the following effects:

- Access to training and education: certification was effective in stimulating farmers' access to training and the attendance of schools by their children.
- Farmer economy: net income of farmers increased due to productivity and quality improvements as well as premiums paid.
- Working conditions: working conditions on farms became safer and child labor slightly reduced.

Certification has had limited to no effects in the areas of democratic-decision making in cooperatives and gender equality.

Effectiveness of certification depends on the quality of implementation programs

It is important to note that it is very difficult to disentangle the effects of certification from the effects of the training program and other development initiatives which are implemented to accompany farmers in adopting sustainable practices. Farmer economy is the only dimension that also improves as a direct result of certification due to premiums (as long as these are paid and reach farmers), whereas the effects in the other dimensions can only be reached together with additional interventions, mainly training. The challenge of disentangling effects also becomes obvious in the theory of change of certification schemes, which can be considered as fairly optimistic. Besides core elements of certification, such as audits, it also builds upon effects which go beyond the control of certification schemes, depending on the intervention of external actors.

Certification can trigger sustainable change at farm level, structure training activities by providing guidance and ensuring regular checks and also maintain certain achievements at farm level. However, only if implemented in combination with a training program, certification can systematically improve smallholder livelihoods.

The way forward: less, better and more transparent schemes

In order to further increase the effectiveness of certification in improving smallholder livelihoods, we recommend to harmonize certification standards and to optimize the certification system in terms of increasing farmer benefits, fostering demand, improving the implementation of certification (including integrity of control systems) and strengthening transparency of processes and impacts. This will allow to help more and smaller farmers to a greater extent with the same investments. While the schemes are to take the lead in optimizing certification, the traders could definitely play an important role in facilitating the formation of producer groups and in pre-financing the investments needed to get certified.

If this cannot be achieved, certification might lose its relevance over time due to limited market share as a result of limited benefits for smallholders and lacking credibility for major brands and consumers. We therefore encourage to benchmark the effects (partly) attributed to certification with other development initiatives, aiming to improve smallholder livelihoods without a certification component. Hereby cost per ton of product could be compared, accompanied by a Social Return of Investment (SROI) assessment. The major brands could foster such benchmarking approaches by incorporating them in the monitoring and evaluation of their sustainable commodities programs. Interesting lessons could also be drawn from programs integrating farm investment, training and certification, such as Mondelez' Cocoa Life or Nestlé's Nespresso AAA Sustainable Quality Program.

1 Introduction

1.1 Background of the study

SUSTAINED is an initiative established by the three founders and entrepreneurs Dr Michael Otto, Dr Joh. Christian Jacobs and Michael R. Neumann. Their foundations Aid by Trade Foundation, Jacobs Foundation and Hanns R. Neumann Stiftung work with smallholders in the cotton, cocoa and coffee sectors, whereby the Jacobs Foundation has an additional focus on education and youth. It is the objective of the foundations to improve the livelihoods of smallholders in the above-mentioned sectors through practical project work and the promotion of a wider sector and political dialogue. Within the work of the foundations it has become evident that certification gained increasing importance over the years. Despite its importance in the markets, the dynamic of certification for livelihood improvement of smallholders is widely assumed, however, not proven. SUSTAINED aims to understand the potentials and limitations of certification in view of a long term sustainability of the cotton, cocoa and coffee sectors and the effects certification has on the livelihoods of smallholders.

SUSTAINED has asked KPMG Advisory N.V. to prepare a report discussing the following research question:

Can certification or verification schemes systematically help to improve the livelihoods of small farmers in the cotton, cocoa and coffee sectors in particular regarding access and quality of education, lack of gender discrimination, prevention of child labor and democratic decision-making and what are the main determining factors?

Upon request of SUSTAINED, we test the following hypotheses:

- The concept of certification is exclusive and not inclusive.
- Systemic adaptations are needed for the approach of certification in order to reach SUSTAINED's objectives to improve living conditions of smallholders farmers in developing countries.
- Certification / verification must produce a material added value for all market participants.

We focus on the following certification schemes: Fairtrade, UTZ Certified (UTZ), Sustainable Agriculture Network/Rainforest Alliance (SAN/RA), Common Code for the Coffee Community (4C), Better Cotton Initiative (BCI), Cotton made in Africa (CmiA) and Organic.

For the purpose of this study, 'sustainability certification' and 'sustainability verification' are defined as a set of rules, practices and organizations that align a common goal between different actors in a supply chain aimed at ensuring that good practices with regards to sustainability are implemented throughout this supply chain. When this report refers to 'certification', it addresses sustainability 'certification' and 'verification', given that the available literature does not clearly differentiate between the two concepts. Where applicable, their differences are explicitly mentioned. The certification/verification process is described in the following section.

We analyze the effectiveness of certification from the perspective of smallholders. 'Smallholder' refers to the limited resource endowments of certain farmers relative to other larger scale and more commercial farmers. The detailed definition of 'smallholder' and other relevant definitions can be found in Appendix III. Throughout the study we used the term 'farmer' for 'smallholder farmer', as a significant number of studies reviewed focus on exclusively on smallholder farmers and a considerable number of the implementation programs described by interviewees address smallholders as main target group.

A draft report was shared with the representatives of the certification/verification schemes in scope and the feedback is incorporated.

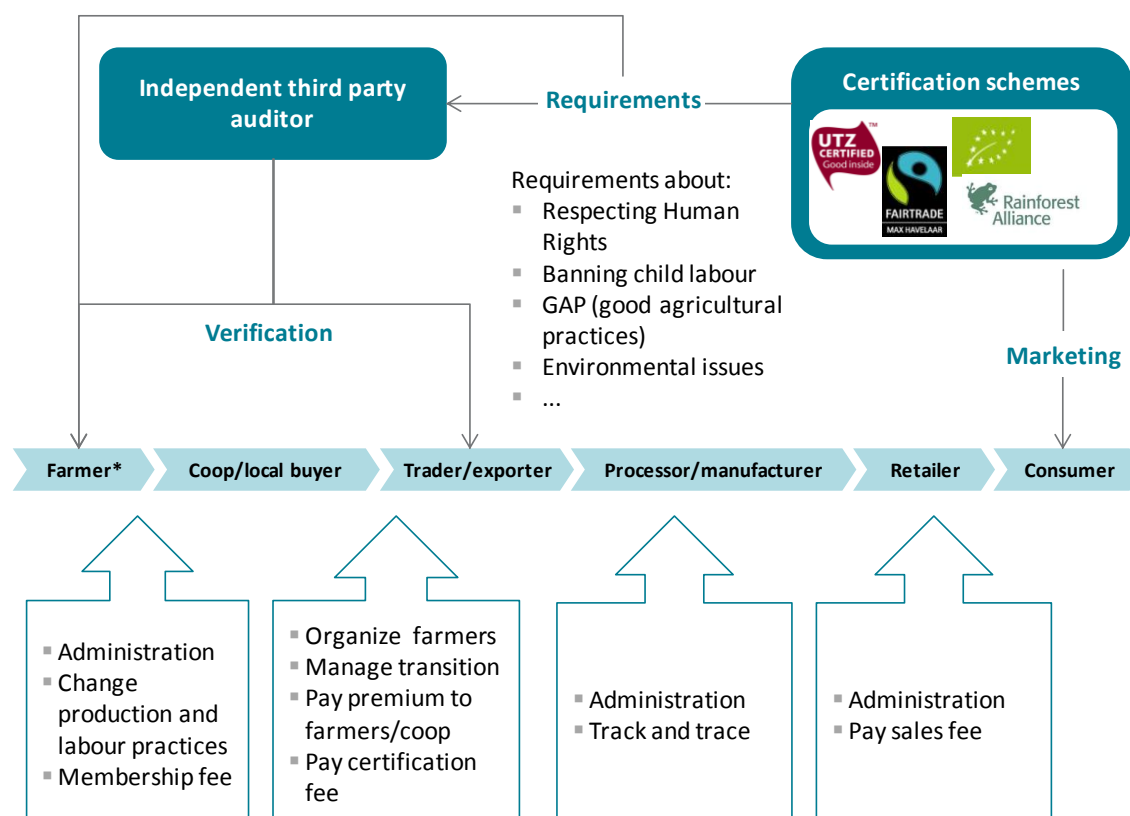
1.2 Methodology

1.2.1 Defining the process of certification

As a basis for this study, the certification process as applicable for Fairtrade, UTZ, SAN/RA and Organic can be described as follows (see also Figure 1):

- The farmer/cooperative indicates that they wish to become certified. At this stage they themselves can perform a pre-assessment based on the requirement checklists available on the website of certification schemes;
- The farmer/cooperative implement an internal control system (ICS), which is part of the certification requirements;
- An internal audit is conducted to assess readiness for certification. In case of a positive outcome, an official third party audit is conducted to assess compliance of the cooperative and of individual members. The auditor submits his findings to the certification scheme with either a recommendation for granting the certification or with a list of corrective actions, the implementation of which is verified in a follow-up audit.
- It is important to note that in the first year, the cooperatives do not need to comply with all requirements. Fulfillment of certain requirements is necessary from the first year on (e.g. requirements regarding child labor). However, all schemes have phasing systems allowing farmers to adjust to all requirements over time. For instance, in the case of Fairtrade, cooperatives have up to 6 years to reach full compliance.

Figure 1: Illustration of the certification process¹



* Smallholder farmer as part of a cooperative

¹ Source: KPMG (2012). Cocoa Certification. Study on the costs, advantages and disadvantages of cocoa certification commissioned by the International Cocoa Organization (ICCO).

Different models for certificate ownership

It is important to note that there are two models concerning the ownership of the certificate, which impact the effectiveness of certification for smallholders:

1. The farmer himself or his producer group holds the certificate. In this case, farmers have greater bargaining power and flexibility, as they can choose to whom to sell their certified product. On the other hand, this model makes it more difficult and costly to include more farmers in certification.
2. The first buyer holds the certificate. Here, farmers are dependent on a specific buyer if they want to sell their products under a given certification label. At the same time, this approach has a greater potential for scaling certification up, as the decision of applying certification standards is taken at a higher level, by fewer actors, that represent a large number of individual farmers.

The process as described above is only partly applicable to the verification schemes CmiA, BCI and 4C. The verification system also includes farmer self-assessment and external verification by an independent third party. However, verification schemes do not issue a certificate. They focus on confirming the results of the farmer self-assessment and verifying the compliance with continuous improvement requirements on a regular basis. A license to sell the product associated with the verification scheme (CmiA cotton or 4C coffee) is issued by the scheme after successful verification.

A second difference between certification and verification is the fact that verification relies on a community of actors along the supply chain, consisting of farmer organizations, traders (importers and exporters), industry (processors and retailers) and civil society organizations. These actors cannot simply adopt the standard, but become part of an engagement process (including site visits and consultations) with the aim of being integrated in the respective verification system. In contrast to the community-based approach taken by verification schemes, certification schemes handle an open model where any interested farmer organization can apply a given standard and subsequently seek certification.

Thirdly, verification schemes focus more than certification schemes on the gradual improvement of farming practices. This is embodied in a step-wise approach consisting of few, often less strict, core criteria and progress requirements as well as different degrees of compliance with each criteria or requirement (e.g. traffic-light approach of CmiA, with 'green' representing full compliance).

In order to be able to adopt Good Agricultural Practices and to comply with the requirements of certification and verification schemes, farmers need to develop knowledge and skills both from a technical and a business perspective. This capacity-building is not part of the certification system and is only present to a limited extent in the verification system. Instead, programs are implemented by actors other than schemes, providing training as well as other inputs (e.g. farm equipment, seedlings) to farmers. Especially training is essential for smallholder farmers to reach certification standards and to progress on the route of verification.

1.2.2 Our approach

To answer the research question on the effectiveness of certification in improving smallholder livelihoods, we use a two-step approach. First, the theory of change as proposed by schemes is described and their ability to drive change is analyzed. In a second step, we research the actual effect of certification on smallholder livelihoods through a literature study and guided interviews. The methodology followed is described below.

Literature study

The literature study analyzes the effect of certification on farmer livelihoods with regard to the following dimensions:

- **Access to education and training:** Training of farmers and education of children
- **Working conditions:** Conditions for workers, farmers and their families relating to the use and storage of chemicals, housing, minimum wages, worker rights and child labor.
- **Gender equality:** Effects on ensuring equal rights and the empowerment of women at farm level.
- **Farmer economy:** Net effect on income resulting from input provision, good agricultural practices, quality and yield improvements, premium and/or wages. Effects on farm management.
- **Local natural environment:** Effects on the restoration and preservation of local ecosystems and biodiversity.
- **Group level:** Effects on the governance of producer groups.

From a database of over 100 documents which was compiled using the references of existing literature studies² and identifying additional relevant articles through an online search, a total of 24 studies were selected. The full list of sources can be found in Appendix I.

The underlying selection criteria were:

- **Scope:** Only primary studies reporting original field research were included.
- **Relevance:** Regarding the different dimensions of farmer livelihood improvement, studies covering more than one dimension were given preference over studies addressing only one dimension, provided that every dimension was covered at least once.
- **Balance:** The literature selected covers each scheme at least once on each of the respective commodities. To ensure a balanced overview in terms of commodities, reports on cocoa or cotton were given preference over coffee with similar characteristics, since coffee is the most commonly studied commodity.
- **Quality:** In addition to peer-reviewed articles, publications from recognized research institutes and international organizations in the field have been selected. All of these sources have a clear methodology and associated conclusions.
- **Specificity:** In addition to the sample of independent studies, a maximum of 2 impact studies provided by standard owners were included.³
- **Focus on smallholders:** where possible, studies focusing on smallholder farmers were prioritized.

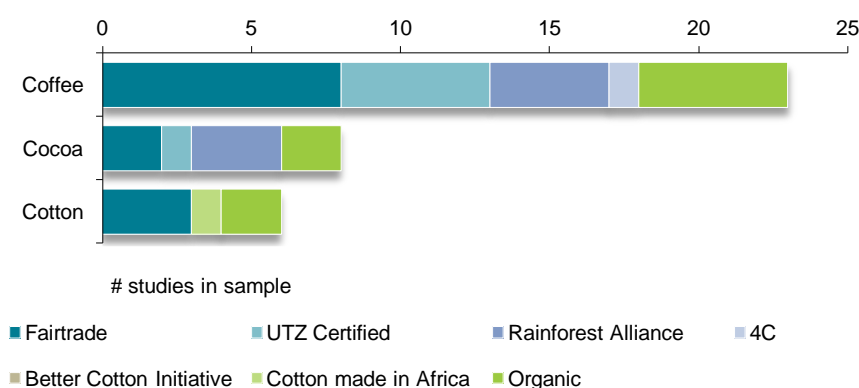
Most literature on certification covers the schemes Fairtrade, Organic, SAN/RA and UTZ. Certification in the coffee sector is most often reviewed. Figure 2 shows a classification of the literature reviewed according to commodity and standard. Given that several studies address more than one commodity or scheme, the total number of studies presented below exceeds the amount of 24 primary studies included in the literature review.

² Blackman, A. & Rivera, J. (2010). The Evidence Base for Environmental and Socioeconomic Impacts of "Sustainable" Certification;

ITC (2011); The impact of private standards on producers in developing countries. Literature review series on the impacts of private standards- part 2;

KPMG (2012). Cocoa Certification. Study on the costs, advantages and disadvantages of cocoa certification commissioned by The International Cocoa Organization (ICCO).

³ It should be noted that not all standards had impact studies available. 4C only provided a summary of an impact study, while BCI does not have an impact study available yet. For CmiA, only a baseline study was available.

Figure 2: Studies on certification by commodity and standard⁴*Expert interviews*

In order to assess the effect of certification from the perspective of experts in the field, 45 interviews have been conducted with different stakeholders of certification, among them producers, certification schemes, NGOs, research institutes and corporate supply chain actors (see list of interviewees, Appendix II).

The interviews focused on the following aspects:

- **Effectiveness of certification in improving farmer livelihoods:** interviewees were asked to select an implementation program⁵ they had experience with and to attribute a score between 1 (counter-effective) and 5 (highly effective) to the effect of the program on the dimensions ‘access to training’, ‘farmer economy’, ‘working conditions including child labor’, ‘gender equality’ and ‘democratic decision-making in producer groups’. Subsequently, interviewees were asked whether certification was a requirement for the effects observed or if the implementation program (including training) would have achieved the same results without certification. It is important to note that the interviews with certification schemes were not used as input for the analysis of effect on the farmer livelihood dimensions due to the risk of obtaining biased results.
- **Inclusiveness of certification:** the type of farmer that is likely to be included in certification/excluded from certification and possible barriers to access certification
- **Performance of certification schemes:** evaluation of schemes regarding their transparency (on budget allocation and impact), entry-level and provisions for continuous improvement, list of requirements, integrity (i.e. robustness in ensuring compliance with requirements) and impact monitoring.
- **Benefits and shortcomings of certification**
- **Systemic adaptations to certification:** recommendations and good practices on how certification systems should be adapted in order to further increase their effectiveness and to maximize the added value for farmers in the long term.

⁴ Source: KPMG Team analysis. Note that some studies may discuss multiple commodities.

⁵ In order to obtain a reliable assessment of the effects of certification, interviewees were asked to choose an example of a program related to certification being implemented in a specific region for a specific commodity. For the definition of ‘implementation program’, see also Appendix III.

Limitations

The literature evaluating the effects of certification on farmers is diverse. When drawing conclusions, the variability in methodologies and sample sizes has to be taken into account. Besides, the literature study does not differentiate between the effects of individual certification schemes, which means that the arguments presented might not be equally applicable to all schemes, given their different requirements. Significant deviations of arguments between schemes are indicated in the text.

Another limitation of both literature study and interviews is the challenge of disentangling the effects of the implementation program, which is carried out by external organizations, from the effects of certification as such. The study takes this aspect into account by stating explicitly where effects can be evaluated separately and where the evidence obtained does not allow for a separate analysis.

Thirdly, the evidence base is not always clear regarding the type of farmer addressed (smallholders versus large-scale/professional farmers). Given the kind of literature selected (6 studies have included smallholder focus in their title and several others also concentrate primarily on smallholders) and the smallholder focus of a considerable number of the interviewees, smallholders are assumed to be most frequently in the focus of the analysis (see also explanation in section 1.1).

Finally, the interview results regarding effect might be biased by the fact that interviewees were asked to evaluate the implementation program they had experience with, which was in several cases the program their organization was implementing. The scope and conditions of the project did not allow for an impact assessment of the same program by different parties.

2 Setting the scene

2.1 Drivers of certification

The development of certification schemes and standards has been driven by a variety of actors. Whereas governments and farmers were key driving forces in the beginning of certification, in recent years, business and civil society are mainly driving certification, with companies adopting standards and integrating them in their core business and advocacy groups stimulating more firms to join and adhere to the requirements of certification programs.⁶ In the following, the influence of these actors on the development of certification is described.

Governments

Several governmental regulations have contributed to the development of standards, yet there are also strong political movements against the concept of trade standards.

- In the cocoa industry, certification was anchored in legislation with the adoption of the Harkin-Engel protocol in 2001 to end the worst forms of child labor.⁷
- Through various communications, the EU has also set direction for the implementation of standards, in particular in the cotton chain in Africa.⁸
- The coffee industry remained more or less unregulated after 1994 when price regulation through the International Coffee Agreement was abandoned⁹. In 2003, the Common Code for the Coffee Community (4C) was established with support from the German government.
- Organic agriculture was fostered by governmental initiatives such as the national organic standards launched by the U.S Department of Agriculture in 2002 or the Green Food standard established by the Chinese government during the 1990's.¹⁰ In 2007, the European Council of Agricultural Ministers agreed to a new Council Regulation on organic production and labelling of organic products in order to set a clear direction for the continued development of organic farming.¹¹

On the international level, within institutions such as the World Trade Organization, the implementation of labor and trade standards has been considered 'one of the most controversial issues'.¹²

Farmers

The origins of Fairtrade and Organic lie in the initiative of farmers. In the case of Fairtrade, Mexican coffee farmers who were selling their coffee through 'world shops' approached the Dutch development organization Solidaridad to sell larger quantities of coffee to European consumer markets. Solidaridad created a label, Max Havelaar, which could be placed on coffee sold under any brand. Several Fairtrade foundations were founded and joined forces, resulting in the establishment of Fairtrade Labelling Organization (FLO) in 1997.¹³

⁶ Resolve (2012). State-of-Knowledge Assessment of Standards and Certification. Toward Sustainability: The Roles and Limitations of Certification.

⁷ For an overview of the historic development of certification, see the timeline in Appendix IV.

⁸ EU Communication /2004/0087 art. 3.2.1.1.

⁹ International Coffee Organization.

¹⁰ Resolve (2012).

¹¹ Council Regulation (EC) No. 834/2007 of 28 June 2007 on organic production and labelling of organic products and repealing Regulation (EEC) No. 2092/91.

¹² WTO (2001).

¹³ Jaffee (2007).

Business

In the last decade, multi stakeholder-initiatives with the active involvement of industry have been developing verification standards such as 4C, CmiA and BCI.

According to the corporate actors interviewed for this study, providing a proof or guarantee to customers that sustainable requirements are met is one key motivation for companies to implement certification. This demand for a 'sustainable proof' from the end-consumer translates itself back into the value chain to the extent that certification has become a license to operate for certain companies. Another reason for business to drive certification is the sustainable improvement of farm production systems through the training and certification process, which is in the interest of companies sourcing from the respective farms. This has also led to longer-term supply agreements with certified farmers.

Civil society

Civil society organizations have played a key role in the establishment and implementation of certification. NGOs have acted as primary founders of several certification schemes and standards, such as the Sustainable Agriculture Network with nine developing country NGOs as member organizations, and the Rainforest Alliance. Furthermore, NGOs have contributed to raising awareness for certification among consumers.

Foundations have been supporting sustainable agriculture through the provision of funding. Initially benefitting the activities of certification schemes themselves, the focus of funding has moved up the value chain to projects preparing local producers to become certified.¹⁴

It is important to note that certification schemes and standards generally have emerged and evolved in the context of multi-stakeholder initiatives formed by several of the actors described above. These initiatives have become a common practice in standard development and governance.

2.2 What are the ultimate goals of certification?

In order to shed light on the ultimate goals of certification, this section analyzes the expectations from standard setters, farmers, traders, industry and consumers regarding the outcomes of certification.

Expectations of standard-setters

For standard-setting organizations, commodity certification is a means of improving the social, economic and environmental conditions in producing countries by leveraging trade and engaging different stakeholders along the value chain. The focus and strategies for achieving sustainable market transformation varies between the individual schemes (see *Table 1*). Some of them focus on the creation of fairer trade relations for small farmers (e.g. Fairtrade), whereas others consider increased productivity as the basis for improving farmer livelihoods (e.g. UTZ, 4C, BCI). The preservation and restoration of the natural environment is a key element of the expectations that schemes like Organic and SAN/RA have from certification.

¹⁴ Resolve (2012).

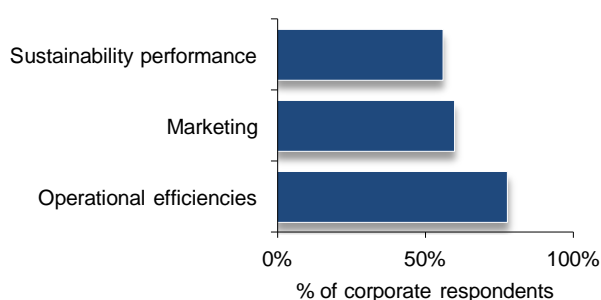
Table 1: Objectives of certification schemes¹⁵

Scheme	Objective
Fairtrade	Connect disadvantaged producers and consumers, promote fairer trading conditions, and empower producers to combat poverty, strengthen their position and take more control over their lives.
SAN/RA	To conserve biodiversity and ensure sustainable livelihoods by transforming land-use practices, business practices and consumer behavior.
4C	Work towards the improvement of the economic, social and environmental conditions of coffee production and processing to build a sustainable sector for future generations.
Organic	Support the worldwide adoption of environmentally, socially, and economically sound systems based on the principles of organic agriculture.
UTZ	Create a world where sustainable farming is the norm (incl. good agricultural practices, profitable farm management with respect for people and planet; industry investment in sustainable production).
BCI	Make global cotton production better for the people who produce it, for the environment it grows in and for the sector's future.
CmiA	Help people to help themselves by means of commercial activities, improving agricultural practices and fostering education.

Expectations of the industry

Private companies expect both operational and reputational improvements from certification. In a study by ISEAL (2010), business representatives were asked the question ‘What are the main benefits that businesses perceive in their use of standards?’.

Of all respondents, 78% cited increased operational efficiency, 60% identified customer communications and marketing as main benefit and 56% mentioned sustainability performance (see Figure 3).¹⁶ Further to the aspects mentioned in the survey, certain companies expect certification to improve security of supply of sustainable commodities.¹⁷

Figure 3: Benefits expected by companies from standard systems¹⁸

Expectations of consumers

Consumers consider certification labels as the most reliable source of information on environmentally and socially responsible products. This is revealed by a survey conducted in 2012 by BBMG, GlobeScan and SustainAbility amongst over 6,000 consumers in different countries (see Figure 4).

¹⁵ Source: standards websites and scheme documentation.

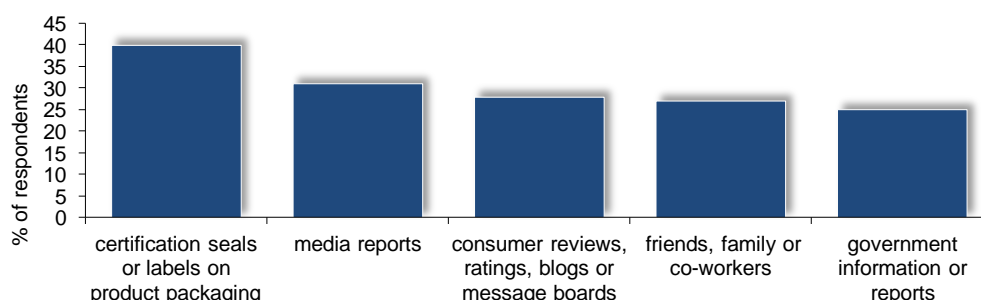
¹⁶ ISEAL Alliance (2010) The ISEAL 100. A survey of Thought Leader Views on Sustainability Standards 2010.

¹⁷ Source: interviews and corporate websites.

¹⁸ ISEAL Alliance (2010).

In general, limited documentation is available on the expectations of consumers towards certification.

Figure 4: Consumers' most trusted sources of responsible product information¹⁹



Transparency is another issue related to consumer expectations. In the last years, several large retailers have introduced umbrella sustainability initiatives to promote their socially and environmentally responsible product portfolio. These initiatives often bundle together various certifications under one label. For example, Albert Heijn's 'Puur & Eerlijk' (Pure & Honest) brand brings together Fairtrade, MSC, organic, free-range (for eggs and meat) and environmental aspects based on life cycle certification systems.

While these initiatives enable consumers to purchase more sustainable products, it is not clear whether consumers have enough insight into the different labels gathered under an umbrella initiative. On the other hand, there are initiatives that focus on one label such as Lidl's 'Fairglobe', which guarantees that the respective products meet international Fairtrade standards.²⁰

Expectations of Farmers

Little research has been carried out to shed light on the expectations of smallholders towards certification. Studies analyzing expectations of farmers find positive as well as negative expectations towards (organic) certification. Schulze et al. (2008)²¹ report that the cost/benefit ratio, the list of requirements, the communication of the standard owner and the perceived expertise of the auditor significantly affect the overall evaluation of certification by European farmers. In Latin America, the way of communicating costs and benefits of a scheme significantly influences farmers' motivation to join a scheme. Related expectations are higher operational benefits, a better relationship with buyers and lower managerial and bureaucratic costs. On the negative side, a large number of farmers perceive a risk of fraud in organic farming.²²

As demonstrated by the analysis above, expectations of stakeholders towards certification range from operational efficiencies over product transparency to improved environmental protection. All stakeholders expect some form of improved sustainability from certification, yet within this scope, priorities differ.

¹⁹ BBMG, GlobeScan and SustainAbility (2012). Rethinking Consumption: Consumers and the Future of Sustainability.

²⁰ ISEAL (2010). Top 10 Trends: Presenting the Challenges and Opportunities for the Sustainability Standards Movement.

²¹ Schulze, Albersmeier, Gawron, Spiller & Theuvsen (2008). Heterogeneity in the evaluation of quality assurance systems: The international food standard (IFS) in European agribusiness.

²² Albersmeier, Schulze & Spiller (2009) Evaluation and reliability of the organic certification system: perceptions by farmers in Latin America.

Whereas both industry and farmers count with achieving operational benefits through certification, not all schemes explicitly focus on improved productivity and farm management in their approach (see objectives, Table 1).

The second ranking expectation of private companies to be able to use certification as a tool for marketing and communication overlaps with the expectation of consumers to receive reliable information about the conditions under which goods have been produced. In order to ensure that the use of a certification label by companies reflects an improvement of social, economic and environmental conditions at farm level, certification schemes have to monitor and disclose their effect on farmer livelihoods.

In general, expectations of stakeholders of certification, especially of farmers, have to be researched and understood in more detail in order for schemes to be able to respond to these expectations and to contribute to harmonizing them along the supply chain.

2.3 System, sector and framework analysis

2.3.1 System analysis

As a basis for assessing the effects of certification on farmer livelihoods, the schemes in scope of this study have been analyzed regarding their set-up, way of functioning and criteria.

The findings of the system analysis are summarized below and are also presented in Table 3. The detailed table which includes the qualitative information underlying the classification can be found in Appendix VI.

Set-up

The schemes studied differ in terms of historical development, the type of producers targeted and the degree of involvement of producers in scheme governance.

Established in the 1970s and 1980s on the initiative of producers and/or NGOs, Fairtrade, SAN/RA and Organic have a longer tradition than 4C, CmiA and BCI which were founded during the last decade with the active involvement of industry actors.

In terms of target groups, certain schemes are exclusively focused on smallholders (CmiA, Fairtrade for most products), whereas others also work with larger, professional farms or plantations. For Fairtrade, SAN/RA and Organic, the organization of farmers in a producer group is a pre-condition to be certified.

Looking at the role of producers in the governance of a scheme, Fairtrade and 4C have introduced the participation of producer representatives in decision-making at the General Assembly and the Standards Committee as a formal requirement. On the other hand, CmiA, which follows a top-down approach, does not include any producers in the Standards Committee (General Assembly does not exist at CmiA).

Way of functioning

The approach to auditing is similar across schemes, yet not all schemes conduct Chain of Custody audits. On the financial side, all schemes continue to depend on donor funding, the other sources of revenue differ per scheme.

The verification procedures are most extensive at UTZ and SAN/RA, with annual third-party audits being conducted at every certificate holder. The other schemes also use regular third-party audits to verify that the certified entities comply with the list of criteria. BCI applies a combined approach of self-assessment, second-party audits by a Regional Coordinator and third-party

audits organized by the Secretariat. Fairtrade, SAN/RA and UTZ have implemented Chain-of-Custody certification.

In general, there is a lack of transparency on how certification schemes deal with the issue of quality control, in the sense of ensuring that certified farms comply with the requirements of the respective scheme. No public information is available on:

- the percentage of certificate holders/farms covered by audits in a given period as compared to the total number of certificate holders/farms.
- the controls which have been performed to ensure the quality of the audits (e.g. inspection of work performed by auditors).

The gap of knowledge regarding these aspects puts the credibility of certification schemes at risk.

Concerning their approach to verification and certification, the schemes can be divided in two groups. 4C, CmiA and BCI handle a step-wise approach, where producers have to respect a defined set of excluded practices and have to demonstrate continuous improvement on the remaining criteria (e.g. traffic-light system at CmiA). The other schemes have an absolute list of criteria that constitute the basis for certification. While the latter have a higher entry level, farmers still have the possibility to gradually comply with the list of criteria, as long as core criteria are fulfilled at the moment of certification.

All schemes have procedures in place to respond to minor and major non-conformities as well as provisions for the immediate suspension of certification in specific cases of non-compliance. Limited public information on how different levels of non-compliance are dealt with is available for 4C.

The methods for tracing certified products are either mass balance, segregation or both at all schemes, UTZ, SAN/RA and 4C also apply identity preserved.

All schemes, but 4C and BCI, have a logo through which they market their certified products toward the end-consumer.

All schemes seem to depend to a certain degree on funding from public or private donors. Donor support is either given for their operations (e.g. headquarters, traceability systems, marketing) or to facilitate programs which enable farmers to get certified. The latter amount is estimated at USD 50.00 per ton of certified cocoa²³. Besides, depending on the scheme, certified actors, supply chain partners and corporate label users contribute to the annual budget.

In terms of fee structure²⁴, schemes charge either membership fees (Organic), volume fees (SAN/RA, 4C) or both (UTZ, CmiA, BCI). Volume fees are paid at producer/first buyer level or further down in the supply chain at processor level. Fairtrade and CmiA charge a license fee to the corporate end users of their label.

Farmers certified by Fairtrade, SAN/RA, Organic and 4C incur audit costs themselves.

Regarding price premiums, defined as the amount of money paid for the product in addition to the price of conventional products, Fairtrade is the only scheme to stipulate a fixed premium on top of a determined minimum price, which is valid when the market prices are lower than the established value. Fairtrade premiums are either invested in community development, paid directly to the farmer or used to improve services delivered by producer organizations to their members. The use of the premium is decided upon democratically by farmers. UTZ, Organic and, less systematically, SAN/RA, also provide for premiums, which are paid by the buyer to

²³ KPMG (2011).

²⁴ For definitions, see Appendix III.

the certificate holder (producer group/farmer or exporter). The premium has been estimated by KPMG together with the scheme owners as a quantifiable amount for Fairtrade, UTZ and SAN/RA cocoa, as shown in Table 2. Information on the extent to which premiums benefit certified farmers in practice is limited. There is considerable uncertainty on how the premium is divided between the farmer, producer group and exporter. In some cases the premium is saved for the farmer on a bank account and used to finance future certification expenses, in other cases a proportion of the premium is paid to the farmer directly in cash or farmers decide collectively on how to spend the premium. Sometimes the exporter reduces the premium to pay for its certification expenses, such as the cost of audit.²⁵

Table 2: Cocoa premium per certification scheme²⁶

Premium				
in US\$ per certified ton of cocoa ²⁷	Base case	RFA	UTZ	FT
Ghana	195	150 ²⁸	152,40	200
Côte d'Ivoire	195	200	140	200

Data on the premium actually paid is scarce. If it is assumed that the average premium reported by supply chain actors is representative for all UTZ-certified cocoa and if this is applied to the average price reported to be paid by traders, then in Ivory Coast a total of US\$ 19 million in premium was paid from 2009-2012²⁹.

The same applies for distribution of premium between farmer and producer group. Scheme owners estimate that approximately 50% (UTZ, SAN/RA) to 75% (Fairtrade) is paid to farmers³⁰.

Fairtrade is the only scheme to disclose detailed premium-related information in its monitoring report. In 2010/2011, Fairtrade producer organizations reported receiving premiums of about EUR 18,9 million for coffee, EUR 7,6 million for cocoa and EUR 1,2 million for cotton. Across all Fairtrade commodities, a total of EUR 61.1 million in premium was paid, 80% of which accrued to small producer and contract production organizations. 18% of this amount was spent as cash payment to smallholder members.³¹

Criteria

The scope and degree of strictness of the scheme criteria varies in the areas of organizational strengthening, Genetically Modified Organisms (GMO) and gender equality. On the other hand, schemes have a similar approach towards child labor, aligning their requirements with ILO regulations.

Looking at the way certification is leveraged to strengthen producer organizations, all schemes have requirements safeguarding producer representation rights, meaning that farmers have to be allowed to form or join unions. Fairtrade, UTZ and SAN/RA are the only schemes to also dispose of rules for the governance of cooperatives, whereby Fairtrade focuses on democratic decision-making as well as accountable and transparent management and UTZ and SAN/RA concentrate on the latter.

GMO are prohibited by schemes, with the exception of UTZ and BCI which allow them under certain conditions.

²⁵ KPMG (2012).

²⁶ KPMG (2012).

²⁷ Note that the premium is here represented per certified ton, while in the next paragraph the premium will be calculated per ton produced.

²⁸ Rainforest Alliance indicated this premium was the amount received by the coop.

²⁹ KPMG (2013). Moving the Bars. KPMG Evaluation of the 2008-2012 Cocoa Improvement Program.

³⁰ KPMG (2012).

³¹ Fairtrade (2012). Monitoring the scope and benefits of Fairtrade. Fourth edition.

In the area of gender equality, all schemes stipulate equal rights for men and women, yet there are differences when it comes to ensuring gender equality in practice. Only Fairtrade, UTZ and CmiA demonstrate affirmative action on producer group level, meaning that they have specific requirements on gender equality that certified actors have to comply with and which are part of the third-party verification process.

As for youth rights, including children's access to education, all schemes have banned the worst forms of child labor through their criteria list. Some schemes (UTZ, 4C, CmiA) allow that children help on the farm of their parents if this does not interfere with their right to attend school and as long as no heavy or dangerous tasks are performed by children. SAN/RA states that the children of farm workers are also guaranteed access to school, decent housing and health care, however impact studies do not systematically evaluate all of these aspects.

When it comes to raising farmers' awareness for youth rights and child labor, UTZ appears to be most proactive. Besides providing information on child labor to local trainers, NGOs and extension agents, in cocoa, training producer group members on the issue of child labor is a requirement in the UTZ certification code. BCI takes a less structured approach, conducting for instance awareness-raising walks with children themselves. Representatives of Fairtrade and CmiA indicate that their schemes also raise awareness and train producers with regards to child labor and education of children. The scale of the different schemes' initiatives is not disclosed. Looking at the funding of children's education, CmiA co-finances three school infrastructure programs in two countries (Benin, Zambia) for ca. 10,000 pupils.³² Fairtrade premiums are also used to fund the provision of schooling. In 2010/2011 though only 4% of the total premium income for smallholders was invested in educational purposes such as school infrastructure, school supplies, scholarships, payment of school fees or teacher training.³³

³² Data obtained from CmiA.

³³ Fairtrade (2012).

Table 3: Scheme typology - Qualitative comparison of schemes³⁴

Aspect		Certification scheme							
		Fairtrade	SAN/RA	UTZ	Organic	4C	CmiA	BCI	
Set-up	Establishment	1988	1986	coffee (2002), cocoa (2009)	1972 (IFOAM)	2003 (4C project) 2006 (4C association)	2005	2009	
	Target groups								
	Smallholder farms	•	•	•	•	•	•	•	
	Professional farms/ plantations	•*1	•	•	•	•		•	
	Workers	•	•	•		•		•	
	only organized farmers	•	•		•				
	Governance*2								
	Representation of producers at General Assembly:				governed by (supra) national organic legislation				
	None		•	n/a			n/a		
	Voluntary							•	
	Mandatory (quota)	•							
	Representation of producers at Standard Committee:								
	None						•		
	Voluntary							•	
	Mandatory (quota)	•	•	•					
Way of functioning	Verification and certification procedures								
	Self-Assessment				Requirements for certification bodies *4	•	•	•	
	Third-Party Audits every 2-3 years	•*3				•	•		
	Annual Third-Party audits							•	
	Annual Third-Party audits of every certificate holder		•	•					
	Chain of Custody certification	•	•	•					
	Sanctions								
	Procedures addressing minor non-conformities	•	•	•	•	•	•	•	
	Sanctions addressing major non-conformities	•	•	•	•	•	•	•	
	Provisions for immediate suspension of certification where applicable	•	•	•	•	•	•	•	
	Traceability (until final processing stage)								
	Mass balance	•*5	•	•	•	no information	•	•	
	Segregation	•	•	•	•		•	•	
	Identity preserved		•	•					
	Logo on downstream product?	yes	yes	yes	yes	no	yes	no	
	Fee structure								
	Membership fee	•		•	•	•	•	•	
	Volume fee		•	•			•	•	
	License fee	•					•		
	Donor funding	•	•	•	•	•	•	•	
	Payments								
	Audit costs paid by producers	•	•		•	•			
	Premium paid to certificate holder	•	(•)	•	•				
	Minimum price paid to certificate holder	•							

³⁴ Source: KPMG analysis based on documentation of certification schemes.

October 2015								
	Aspect	Certification scheme						
		Fairtrade	SAN/RA	UTZ	Organic	4C	CmiA	BCI
Criteria	Organizational strengthening							
	Rules for governance of cooperatives	•	•	•				
	Rules for producer rights (incl. representation rights)	•	•	•	•	•	•	•
	GMO (Is the use of genetically modified organisms allowed?)	no	no	yes	no	no	no	yes
	Gender equality							
	Equal rights	•	•	•	Depends on individual certification scheme	•	•	•
	Affirmative action on producer group level (mandatory)	•		•			•	
	Youth rights							
	Exclusion of child labor	•	•	•	Depends on individual certification scheme	•	•	•
	Raising awareness for education of children	•		•			•	•
	Co-financing of education	•					•	

*1 For certain products Fairtrade also targets plantations

*2 The aspect 'Governance' shows to what extent farmers participate in the decision-making of the scheme, including standard development, by analyzing the voluntary or mandatory inclusion of farmers in the General Assembly and the Standards Committee. Where n/a is indicated, the scheme does not dispose of the respective body.

*3 Every 6 years in the case of smallholders

*4 The certification body has to have a written policy on inspection frequency of already certified operators. The policy shall require that certified operators are inspected at least annually. There also have to be provisions for additional inspections.

*5 Only for cocoa

2.3.2 Sector and framework analysis

This section places the system analysis presented in the previous chapter in the wider context of sector and market specific characteristics and trends that can influence the effectiveness of certification systems.

Value chain structure is comparable for coffee, cocoa and cotton

All of the above-mentioned certification schemes operate in supply chains in which production typically takes place in relatively poor countries and the majority of sales are generated in developed, Western countries. In the case of cotton, there are also other large markets, including China and India. The cotton, coffee and cocoa chains, that are the focus of this study, can be characterized as ‘commodity chains’ organized in a typical hourglass structure.³⁵ This means that there are a large number of small farmers, whose production is processed by a limited number of big processors, which in turn sell to a large number of end-consumers.

Different crop features impact farmer attitudes towards certification

While the value chain structure is comparable across the three sectors, cotton differs from cocoa and coffee by its nature of being a one-year crop. According to an interviewee, this implies that a farmer can decide every year anew whether or not to cultivate certified cotton. From a producer perspective this allows for a certain flexibility, from the perspective of certification, there is a higher risk that improvements cannot be achieved or maintained over the longer term.

Only a limited portion of smallholder farmers are organized

Shown in the previous section as a requirement for certain certification schemes, the need to be organized in order to access certification also becomes evident from the interviews (for more detail see chapter 3). Research on the degree of organization of farmers in the cocoa and coffee sector concludes that currently only a limited portion of farmers are organized, with estimates ranging from 10-20% of total farmers for cocoa (Ivory Coast and Ghana)³⁶ and around 25% for coffee³⁷. Organization of farmers thus becomes an important challenge for the up-scaling of certification in these sectors. In the cotton sector on the other hand, CmiA and BCI operate a contract-farming model, where all farmers of one area become part of a management unit (mostly cotton companies), which implements the scheme criteria and is subject to verification.

Certification is very small compared to the global smallholder population

The schemes vary considerably in size. Figure 5 shows the estimated percentage of certified production for each certification scheme as compared to world production. It should be noted that due to multi-certification, there can be considerable overlap between the production figures reported by each certification scheme. Since schemes do not yet keep systematic records of multi-certification, the graph does not account for this overlap.

The figures of certified production can deviate considerably from the certified volumes actually traded and/or sold to consumers. This phenomenon is called ‘leakage’. In the case of coffee for instance only 18% of the total certified produce is sold as certified to the first buyer. Since leakage can be measured on different levels in the supply chain, a comparison of leakage between different certification schemes is not yet possible.

In cotton, uptake of certified products used to be lower compared to other commodity chains. In 2013 however, measured uptake for BCI and CmiA verified cotton has increased significantly.³⁸ Similarly, the niche market for organic cotton appears to be flourishing.³⁹

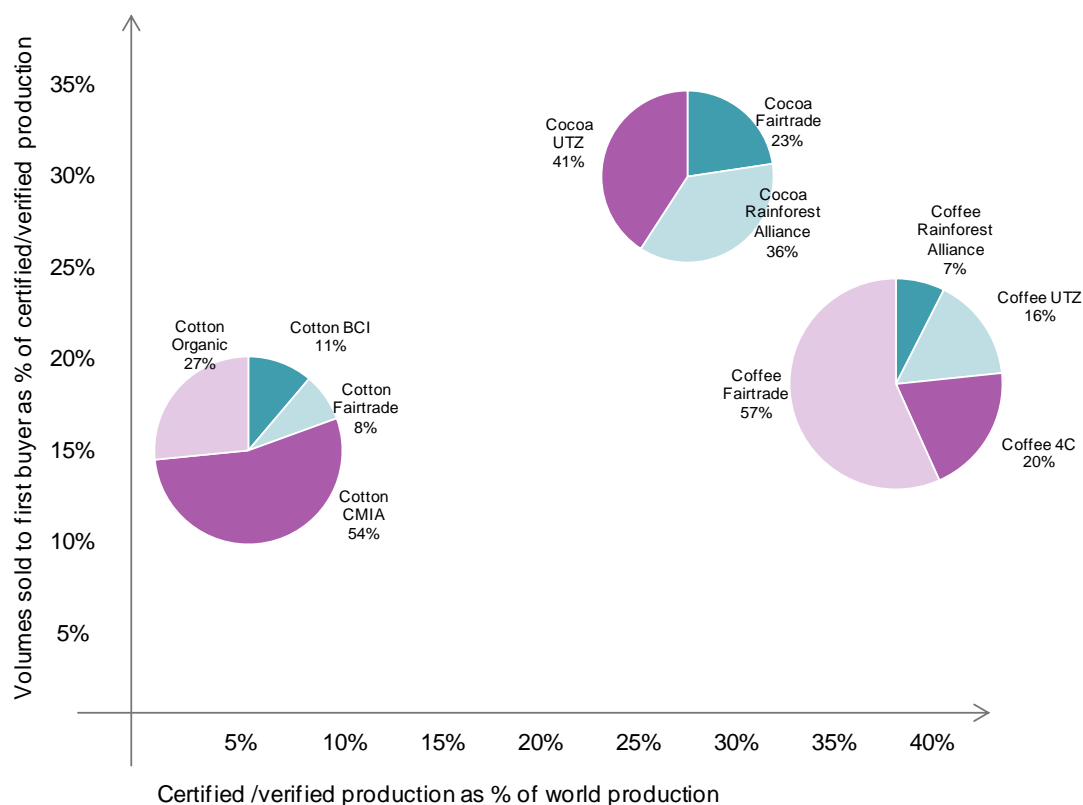
³⁵ Gereffi, Humphrey & Sturgeon (2005). *The Governance of Global Value Chains*.

³⁶ KPMG (2011). Sustainable Cocoa Fund Strategy, Section I – Cost/benefit analysis of cocoa certification in West-Africa.

³⁷ Zamora, Miguel (2013). *Column : Independent smallholders are the silent majority*.

³⁸ Data provided by CmiA (September 2013).

Figure 5: Key statistics of certification per commodity (size of bullet indicates the absolute number of smallholders involved)*⁴⁰



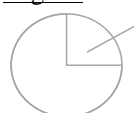
* Graph to be used for illustrative purposes only. Data sources and years differ between schemes. Multi-certification is not accounted for.

Organic certification has only been included for cotton.

BCI uptake is only included through BCI/CmiA chain of custody sales.

For Cocoa SAN/RA no data is available for total volumes sold to first buyer. Therefore an estimate has been made based on the data for SAN/RA Coffee and Cocoa data from the other schemes.

Legend



xx% market share
of standard

Cotton: ~ 800 000 farmers
Coffee: ~ 1 000 000 farmers
Cocoa: ~ 600 000 farmers

³⁹ Textile Exchange (2012).

⁴⁰ Source: KPMG team analysis based on direct data from schemes, Textile Exchange (2011-2012) and ICAC (2013).

3 Does certification improve farmer livelihoods?

This chapter addresses the question of the effect of certification. First, the theory of change and the ability of certification to improve farmer livelihoods are analyzed from a system perspective. In a second step, the actual effects of certification at farm level are described. Where relevant, a distinction is made between certification schemes (UTZ, Fairtrade, SAN/RA, Organic) and verification schemes (4C, CmiA, BCI). Certain issues are discussed in several sections of this chapter, thus allowing to reflect the complete interview results.

3.1 Effectiveness of certification

3.1.1 A generic theory of change

To understand how different factors and elements in the certification process interact to improve farmer livelihoods, a generic theory is required that can be tested and adjusted based on experimentation and learning. Over the last years, certification schemes have developed their own theory of change to document the way supply chains can be transformed by means of certification. Figure 6 displays a generic theory of change, which has been designed based on the theories of change disclosed by schemes.⁴¹

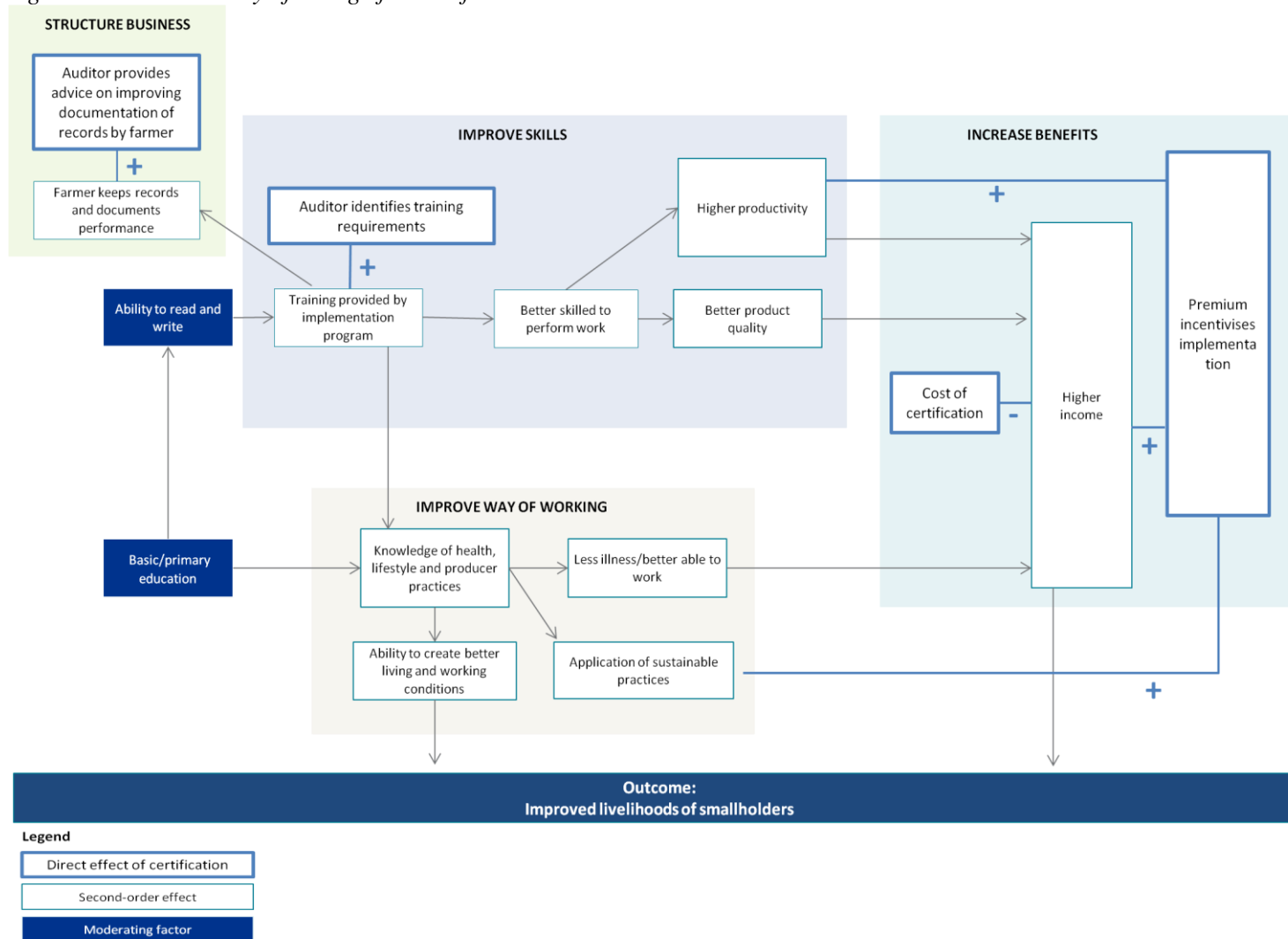
It shows that farmers with basic education and thus the ability to read and write will improve their skills through training which allows them to structure their business and improve their ways of working. Auditors identify training requirements for farmers, thus helping farmers to become aware of the areas where they need to improve their skills in order to get certified. The actual training is generally provided by the implementation program, not by the certification scheme itself. “Better skilled to perform work” as a result of training is therefore marked as a second-order effect of certification. As explained in more detail in section 3.2.2, certification can only foster access to training by directing donor funds towards training and helping to establish a guided training approach. CmiA also funds training itself, the scope of which is not publicly disclosed. In this case, a more direct link can be established between the scheme activities and the effects from training at farm level.

According to the theory of change, skill development from training will lead to benefits such as better product quality and higher productivity which, in turn, will result in higher incomes for farmers. As long as these benefits outweigh the cost of certification, the livelihoods of producers will improve.

The fact that most effects depicted in Figure 6 are second-order effects rather than direct effects of certification shows that the theory of change proposed by certification schemes relies on interventions of various actors – the setting of standards and monitoring of compliance by schemes on the one hand, and the funding and provision of training by external organizations (e.g. development agencies, NGOs, companies) on the other hand. The theory of change of certification thus also depends on factors which are beyond the direct control of schemes. It also involves a number of assumptions with regards to the causal effects of interventions. A third aspect, which is not depicted in the theory of change, but is vital to maintain improvements of livelihoods, is the continued demand for certified products by companies and end-consumers.

⁴¹ Source: KPMG team analysis based on theories of change disclosed by certification schemes.

Figure 6: Generic theory of change for certification



3.1.2 Systems' ability to drive change

Beyond the theory of change, the ability of schemes to induce change at farm level also depends on the following aspects: transparency, entry level & continuous improvement, list of requirements, integrity, impact monitoring and inclusiveness. Interviewees were asked to evaluate the certification scheme(s) they had experience with with respect to these aspects. Answers on inclusiveness were obtained from all 45 interviewees. The other aspects were addressed by 20 interviewees with highest representation of the schemes SAN/RA, UTZ and CmiA.

Transparency

Transparency, defined as the disclosure of revenues and spend as well as impact by schemes, is assumed to be an important pre-condition for stakeholders to engage with a given standard. Interviewees mention a general lack of transparency regarding revenues and spending of certification schemes as well as amounts of certified crops. With regards to individual schemes, they perceive UTZ as being more transparent than SAN/RA due to the disclosure of relevant financial information as well as information on certified volumes. CmiA is seen as being transparent, however this can also be attributed to the fact that more than one interviewee is part of the steering committee of this scheme which facilitates access to relevant information.

Entry-level and continuous improvement

Most interviewees consider the entry-level of the certification schemes Organic, SAN/RA and UTZ as being strict, but adequate. The integration of continuous improvement in their certification model was positively highlighted for UTZ and SAN/RA. Compared to certification schemes, verification schemes or so-called baseline standards like CmiA, 4C and BCI have a lower entry level. Within this group, CmiA is seen as more difficult to access than BCI. One interviewee suggested that schemes should follow the stepping stone principle, where cotton farmers move up from BCI to CmiA for instance. According to a CmiA representative, the entry-level of CmiA equals the one of BCI, which is illustrated by the fact that the two schemes have benchmarked their criteria.

List of requirements

The requirements for certification are generally considered as an effective basis for improving smallholder livelihoods. A significant number of interviewees mentioned that schemes should focus more on the economic empowerment of farmers and on creating a 'business case' for certification from a farmer perspective. Besides, some interviewees highlighted the absence of certain criteria (e.g. waste) that in their view should be part of certification.

Integrity

The integrity and thus the credibility of certification schemes is questionable according to interviewees. In particular, weaknesses were identified regarding the monitoring and control systems of schemes.

Interviewees mention an insufficient coverage of certified farmers by audits and see the quality of the audits compromised by a lack of competence and understanding of local circumstances on side of the auditors. Several interviewees perceive a risk of fraud in the certification system. The shortcomings in monitoring and control are also reflected in recommendations from interviewees to have audits re-performed by another party and to dedicate additional finances to the training of auditors.

The pressure exercised on farmers by processors and exporters seeking to increase their sourced amounts of certified produce presents another risk for the integrity of schemes. Interviewees report that farmers are not given enough time to prepare themselves for meeting the certification requirements and tend to be certified 'too easily'.

Impact monitoring

Certification schemes can improve in finding ways of assessing their impact at producer level. The interviewees consider some of the existing impact studies on certification as insufficient, while also pointing out that certain impacts of certification (e.g. on gender equality) are difficult to measure. As an example of effective impact monitoring the *Good inside* portal introduced by UTZ was mentioned, which captures farmer information digitally. Besides, interviewees suggest that new indicators, such as productivity by hectare, should be introduced as part of the impact measurement, allowing schemes to gain more insights in their effects on the ground.

Inclusiveness

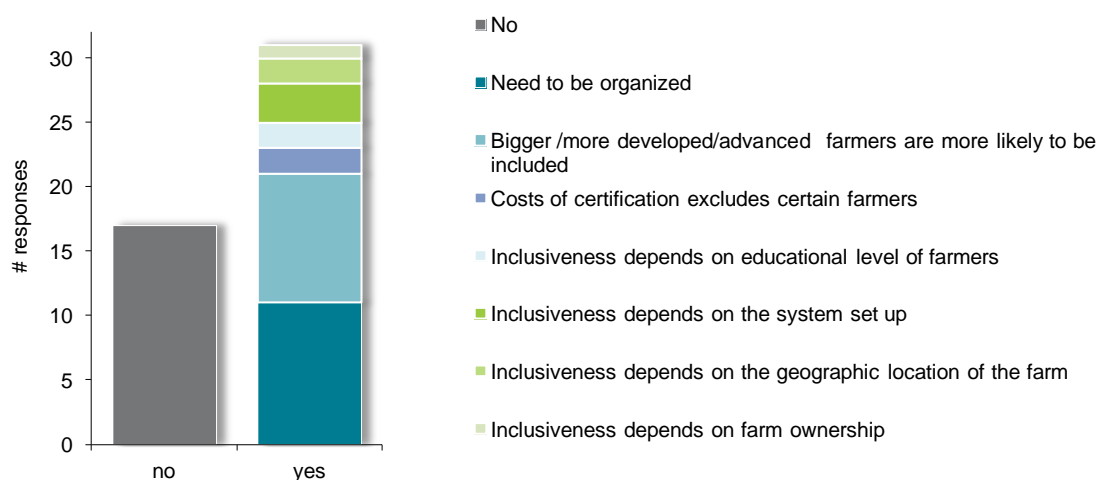
The formal or de-facto requirement that farmers need to be organized in order to get certified can lead to the exclusion of unorganized farmers from the certification process. As stated before, this exclusion mechanism does not apply to the contract-farming based verification of CmiA and BCI. Other access barriers observed by interviewees are the level of professionalization of farmers, the costs of certification as well as, in a few cases, the educational level of farmers or the lack of awareness or motivation for certification.

- Farmers who cannot or do not want to join a producer group are mostly excluded from certification, either because they do not fulfil the respective conditions of schemes or because they are too small to reach the necessary production volume for a premium, being one key incentive of certification.
- Larger, more developed farmers, the so-called ‘low hanging fruits’, are more likely to be certified as they are easier to reach and less effort is involved for schemes and implementation partners to bridge the gap towards certification. Smallholders depend on external support to achieve the necessary level for entering certification.
- From a cost perspective, farmers need to find someone to pay for certification. If farmers have to pay themselves without external funding, it is very difficult for them to join a scheme. Already basic compliance requirements such as building storage for chemicals, buying protective clothing and calibrating every year represent a significant cost for small farmers.

Finally, lack of farmers’ awareness of or motivation for certification fosters exclusiveness of schemes. Two interviewees described the challenge to motivate farmers in the absence of tangible benefits of certification. This finding illustrates the importance of proper communication of the requirements, costs and benefits of certification towards farmers as its main target group.

Figure 7 summarizes the arguments above based on the number of interviewees mentioning them. It shows that a majority of interviewees perceive barriers to the inclusiveness of certification. The first column shows the number of interviewees that mentioned either a positive or no impact on inclusiveness. The second column depicts the number of interviewees that observed specific barriers limiting the inclusiveness of certification schemes. Given that some interviewees mentioned more than one barrier the total number of responses in the second column exceeds the number of interviewees.

Figure 7: Barriers mentioned regarding inclusiveness of certification



From the responses of the interviewees a number of exclusion criteria can be deduced. Accordingly, farmers who are ‘not organized’, ‘less developed’, ‘not able to pay the certification costs’, ‘not sufficiently educated’, ‘not located in an area covered by schemes’ and/or who ‘do not own the land that they are cultivating’ may be excluded from certification in practice. The first two of these criteria are supported by the largest number of interviewees. The statement that inclusiveness depends on system set-up does not constitute an exclusion criteria, instead it shows that it is the current structure of certification rather than the concept as such which fosters exclusiveness. While the majority of interviewees considered certification to be exclusive in one way or another, more than a third of the interviewees did not perceive any barriers to inclusiveness of certification.

3.2 Effects of certification on farmer livelihoods

3.2.1 What do previous studies tell?

The literature review found evidence that certification in combination with implementation programs have improved the social, economic and environmental conditions of farmers and the communities they live in. At the same time there are certain negative effects as well as areas where certification has no effect.

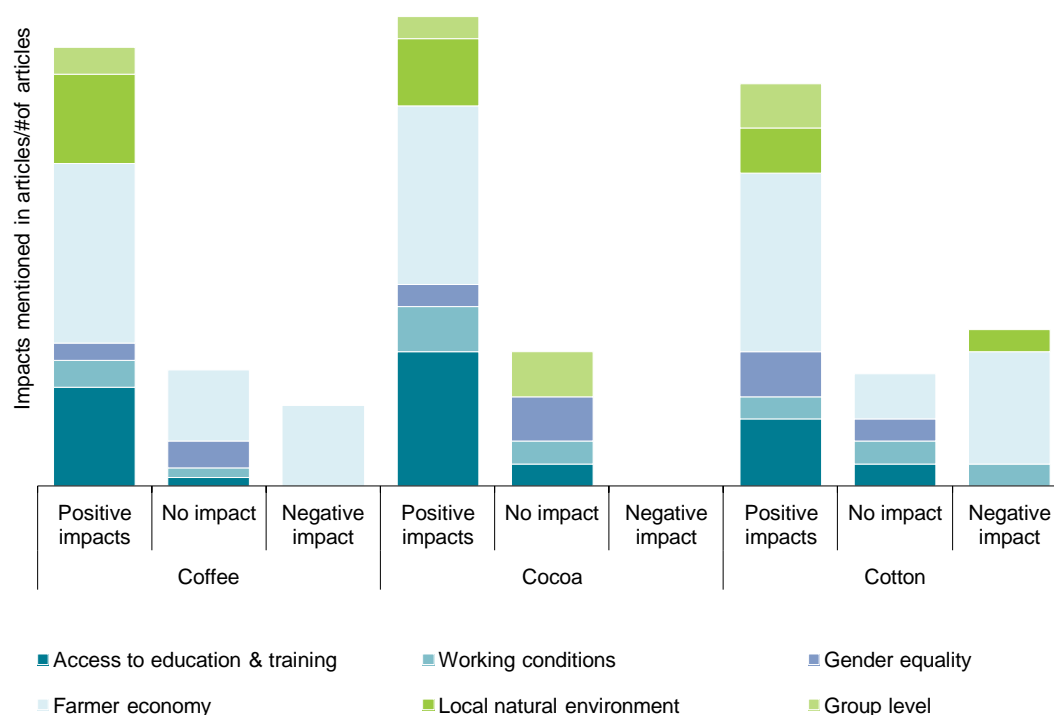
The analysis of the effects of certification on smallholder farmers has been subdivided in the five dimensions of farmer livelihood defined in the methodology chapter (1.2.2), namely ‘Access to education and training’, ‘Farmer economy’, ‘Working conditions’, ‘Gender equality’ and ‘Local natural environment’. In addition to the farm level, effects on producer group level have been studied.

Literature tends to describe the effects without attributing them to the intervention of either certification schemes or external actors: most articles (12) analyze the situation of certified farmers at a specific moment in time without taking the factors into account that have led to this situation. Six articles see the definition of requirements by certification schemes as a driver for the perceived effects at farm level. Five articles note that implementation programs or cooperatives also contributed to the observed effect, however they do not disentangle their role

from the role of certification. Only one article mentions that the effects could have also been achieved without certification. It is important to take this limitation into account, when interpreting the effects from certification described below.

Figure 8 shows an overview of the results of the literature study in quantitative terms. The number of articles mentioning positive effects of certification exceeds the number of articles citing negative effects. There are also dimensions on which certification has no effect. Rather than representing inherent or structural negative effects of certification, ‘no effect’ describes problems which exist independently from certification or that certification has not managed to solve.

Figure 8: Quantitative overview of the results of the literature study






Content-wise, the following results were obtained from the literature study concerning the effects of certification on farmer livelihoods (see also overview in Figure 9 and detailed description of results in Appendix V).

- **Access to education and training:** positive effects of certification are skill development of farmers and improved awareness of children’s educational situation. Regarding the first aspect, the success of trainings is sometimes compromised by low reading and writing skills of farmers, which are a moderating factor for training as shown in the generic theory of change (Figure 6).
- **Working conditions:** certified farmers apply safer working practices (including protection against toxics) and workers benefit from higher wages as well as the introduction of formal contracts. No effects are found when it comes to reducing all cases of child labor during school hours.

- **Gender equality:** studies witnessed an increased participation of women in certified farms, both in terms of being involved in decisions on farm income and in terms of owning farms themselves. At the same time, the studies found indications that women carry a higher workload than men. Also, in many cases women continue to be excluded from the participation in cooperatives.
- **Farmer economy:** Several positive effects have been mentioned concerning the economic situation of farmers. General income of farmers has increased as a result of certification due to higher yields and higher prices for their products. On the downside, an increase in costs and in some cases lower yields is also noted. Only a few studies address the net effect of certification on farmer economy with varying results.
- **Local natural environment:** there are some positive effects on this dimension resulting from less pesticide/chemical use and good environmental practices.
- **Group level:** a positive effect of certification at producer group level are investments and programs implemented by cooperatives, strengthening local communities. Cooperatives also provide better prices to their members, as higher volumes of certified produce can be supplied through the organization of individual farmers. On the other hand, democratic decision-making in cooperatives remains limited.

Figure 9: Overview of the effects of certification on farmer livelihoods

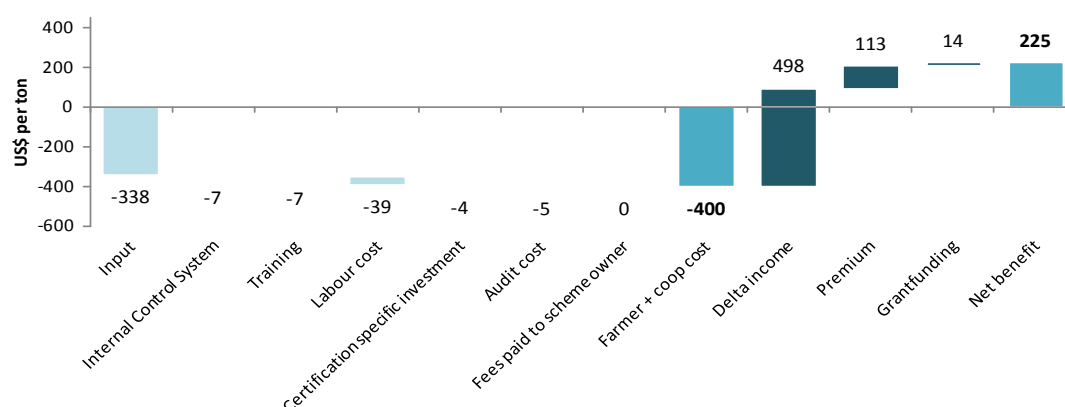
	 Positive effect	 No effect	 Negative effect
Access to education and training	<ul style="list-style-type: none"> • Access to skill/knowledge development due to training(11). • Improved educational situation of children (7). 	<ul style="list-style-type: none"> • Low reading and writing skills make it challenging to successfully complete training (1). 	
Working conditions	<ul style="list-style-type: none"> • Safer/better working practices (4). • Reduced child labor during school hours (2). 	<ul style="list-style-type: none"> • Child labor during school hours persists in certain cases (1). • Pesticide application work carried out by children still occurs on 4C verified farms despite being classified as unacceptable practice by the scheme (1). 	<ul style="list-style-type: none"> • Increased work burden due to Organic certification requirements (1).
Gender equality	<ul style="list-style-type: none"> • Increased participation of women in certified farms (2). • Empowerment of women (2). 	<ul style="list-style-type: none"> • Social norms/ traditional division of labor limit womens' participation in cooperatives(4). • Women seem to carry the heaviest/ most time consuming workload (1) 	
Farmer economy	<ul style="list-style-type: none"> • Reduced debt vulnerability (2) • Higher prices (7). • Higher yields (6). • Quality improvements (5). • Increased access to credit facilities (6). • Improved market opportunities (7). • Higher net income (4). 	<ul style="list-style-type: none"> • Reasons for poverty (low yields, low educational level and farmer's lack of entrepreneurial skills) not addressed (1). • Farm management problems not solved(1). • Net revenue Organic cotton below poverty line (1). • Prices received unchanged(2). • Yield level unchanged (2). • Net income unchanged (3). 	<ul style="list-style-type: none"> • Increased costs (6). • Lower yields (Organic) (5). • Increased difficulty to obtain the required product quality (1). • Net income Organic is lower than conventional net income (2).
Local natural environment	<ul style="list-style-type: none"> • Less (toxic) pesticide/chemical use (5). • Safer environmental practices (7). • Regular controls by schemes help to protect the environment (1) • Wildlife protection by Rainforest Alliance (2) 		<ul style="list-style-type: none"> • Higher water consumption compared to conventional cotton for CmiA (1).
Group level	<ul style="list-style-type: none"> • Strengthening communities (4). • Cooperatives provide better prices (1). 	<ul style="list-style-type: none"> • Limited involvement of farmers in decision-making of cooperatives (1). • Only farm owners can participate in decision-making (1). 	

Case study: Cost-benefit analysis of certified cocoa in Ghana and Côte d'Ivoire

Based on the input of certification schemes and additional data, the effect of certification was calculated per metric ton produced by farmers. For each of the schemes UTZ, Fairtrade and SAN/RA, this cost per ton has been calculated over 6 years, taking into account time dependent factors such as yield improvement and leakage.

An average of cost-benefits for UTZ, Fairtrade and SAN/RA is shown for both Ghana and Côte d'Ivoire in the figure below. Net benefit is depicted in the most right column.

Figure 10: Net benefit per ton over a 6-year period based on averages of model variables



The figure indicates that costs of input and labor are the most important cost factors. Other costs are relatively small in size and the total cost of certification is US\$ 400. On the benefits side, delta income is the biggest factor, which contains the benefits of productivity improvement. Other benefits are premium and grant funding. The total amount of benefits is US\$ 625. When costs are deducted from benefits, the balance or net benefit is US\$ 225 per ton. When productivity improvement *and* input costs are left out of the calculation, the net benefit is still US\$ 65 per ton. This means a business case for certification exists, even when productivity improvement is not attributed to certification. It should be noted that data is based on the averages of farmers certified so far which may be the more organized and professional farmers.

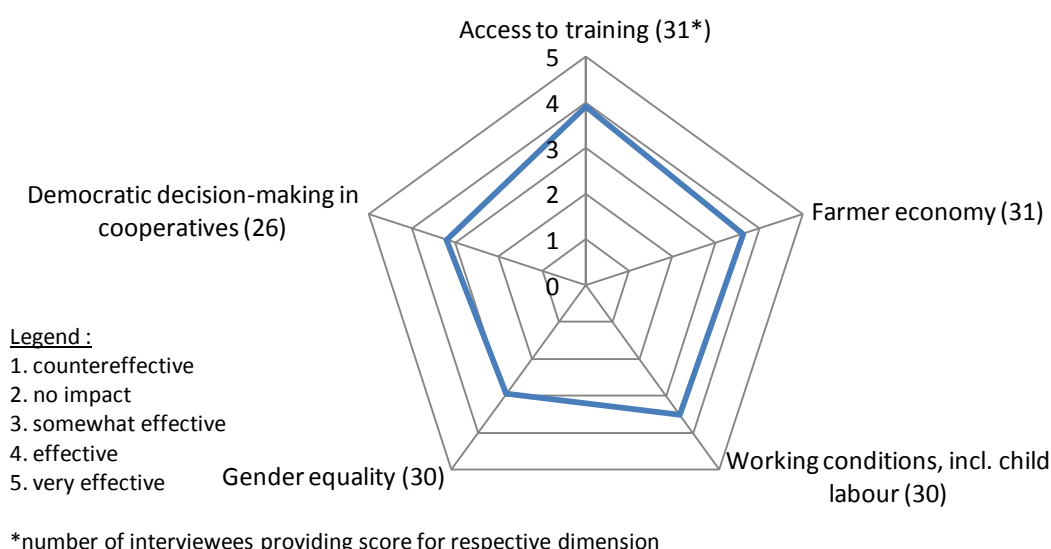
Source: KPMG (2012)

3.2.2 How do specialists assess certification effectiveness?

In this section the results from the experts interviews are presented with regards to the effect of certification and implementation, the attribution of these effects, the shortcomings of certification and the recommended changes and good practices identified by interviewees.

The combination of certification with implementation programs yields positive effects on farmer livelihoods. The results of the interviews show that implementation programs related to certification have been most effective in improving access to training and slightly less effective in improving the economic situation and working conditions of small farmers (see Figure 11). As a part of working conditions, child labor was also reduced in certain cases, however findings are mixed in this respect. Several interviewees highlighted that certification and implementation programs alone cannot solve the problem of child labor and that a coordinated approach of different actors is needed to deal with the complexity of the issue. Beyond the basic improvements in the areas of access to training, farmer economy and working conditions, the average scores of the interviews revealed a limited effect for the dimensions gender equality and democratic decision-making. While these have traditionally not been in the main focus of implementation programs, the latter are now starting to take especially gender equality into account when designing projects at local level.

Figure 11: Analyzing effects of certification and implementation programs at farm level



A particular challenge which is common to all studies investigating the effect of certification is the attribution of the observed effects. Concerning the distinction between the effects of an implementation program and certification itself, interviewees are divided. Broadly, three categories of arguments can be distinguished.

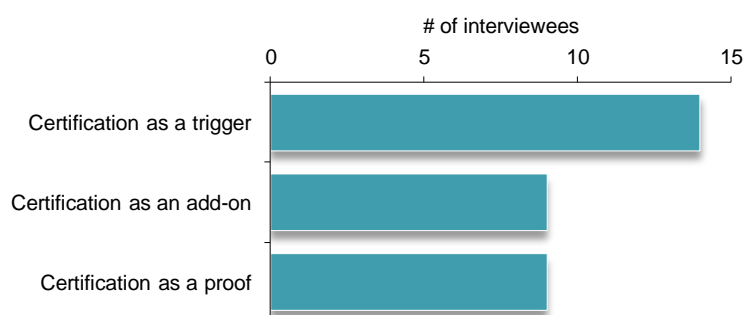
1. **Certification as a trigger:** Certification triggers the implementation of the (training) program, meaning that the program is created in order to prepare farmers for certification. Improvements in farmer livelihoods can be attributed to certification in the sense that the program would not have been implemented without certification.
2. **Certification as an add-on:** Certification adds on to the improvements realized through the program, by maintaining improvements and/or providing additional benefits (e.g. premiums, market access). Improvements in farmer livelihoods can be partly attributed to certification.
3. **Certification as a proof:** Certification confirms the achievements of the program in terms of sustainable production, acting as proof for processors, retailers and end-consumers that a

product meets a given set of requirements. Improvements in farmer livelihoods do not result from certification.

In the case of 2 and 3, the program would also have been implemented without certification, according to interviewees. Figure 12 shows that, if categories 2 and 3 are taken together, less than half of the interviewees see certification as a requirement for improved farmer livelihoods in the sense that it triggers the implementation of sustainable production programs by external organizations.

The majority of interviewees (2 and 3) attributed the effects described to the implementation program. Within this group, half of the respondents considered certification as an ‘add-on’ to the program (2), the other half viewed certification merely as a ‘proof’ of the program’s achievements, serving processors and end-consumers as a confirmation that a given product has been produced under ‘sustainable’ conditions. In this case, certification benefits the actors at the end of the value chain rather than farmers themselves.

Figure 12: The role of certification



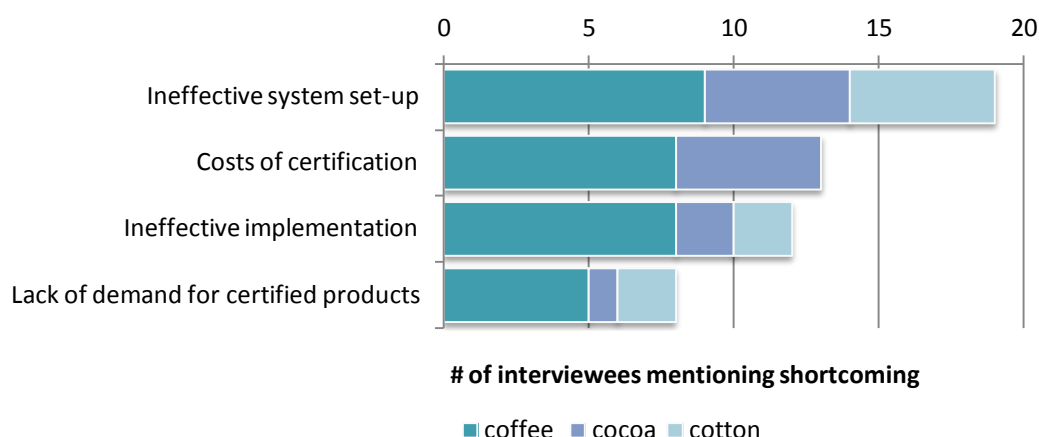
Looking at the shortcomings of certification, ‘ineffective set-up’ was mentioned most in the interviews, followed by ‘costs’ of certification, ‘ineffective implementation’ and ‘lack of demand for certified products’ (Figure 13).

- **Ineffective set-up:** interviewees criticized that the proliferation of certification standards leads to confusion both on the side of farmers and consumers. Farmers have troubles deciding which scheme to adhere to and, in the case of multi-certification, face difficulties to comply with the requirements of different schemes. At the same time, especially for certification schemes, provisions for continuous improvement are considered to be insufficient, given that not all producers can comply with the complete list of criteria from the start. Moreover, interviewees mention that schemes do not focus enough on the direct improvement of farmer livelihoods in terms of enabling farmers to make their own business decisions and increasing farm income. The absence or inconsistent payment of premiums is also mentioned as a shortcoming.
- **Costs of certification:** the investments needed to fulfil the basic requirements of certification (e.g. administration, changed production model) are seen as an important pitfall by interviewees. As outlined in section 3.1.2, the high costs associated with getting certified can lead to the exclusion of smallholders who do not have anybody to cover especially the initial costs.
- **Ineffective implementation:** most of the shortcomings identified by interviewees in the area of implementation relate to the quality and integrity of the monitoring and control mechanisms deployed by certification schemes. For instance it was mentioned that audits often take the shape of a ‘checking the box’ exercise that does not take into account the specific context of the farmer and does not help him to improve his practices. Besides, the insufficient preparation of farmers for certification was highlighted. As schemes do not provide training themselves, they have limited insights in the actual provision of training on

the ground, which, according to some interviewees, is not always happening. Combined with the lack of training, the improvement of farmers' practices can be further compromised by the pressure of exporters some of which do not give producers enough time to comply with scheme requirements.

- **Lack of demand for certified products:** Describing certification as a demand-driven system, interviewees mentioned the structural or punctual lack of demand for certified products as another shortcoming. The fluctuation in demand which is observed across schemes results in an uncertainty for producers whether they will be able to sell their certified products as such, hereby limiting the benefits derived from certification.

Figure 13: Shortcomings of certification



3.2.3 Conclusions

The literature review and the interviews come to similar conclusions.

- The farmers included in certification benefit from improved access to training and a better economic situation created by net income increases and improved farm management practices. Working conditions of farmers also become safer as a result of certification and training. Certification schemes are however only somewhat effective in strengthening democratic decision-making in producer groups and even less concerning the empowerment of women.
- The majority of the effects mentioned by interviewees can be attributed to the implementation program, however certification plays an important role in triggering the implementation of a program which supports farmers in adopting good practices on the one hand and maintaining achievements and ensuring continuous improvement by providing a control structure on the other hand.
- As shown by the responses of interviewees regarding shortcomings of certification, changes are required in order to make certification work more effectively. These adaptations to the certification system are described in the next section.

3.3 Systemic adaptations in order to increase effectiveness of certification

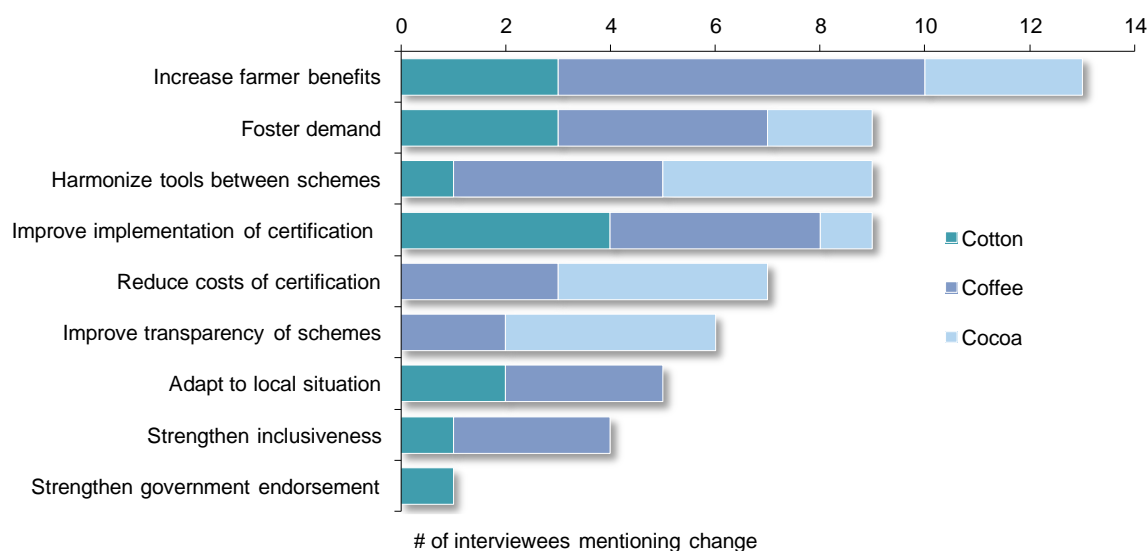
3.3.1 Adaptations and good practices at scheme and farm level

Based on the effects of certification they described, interviewees were asked to outline necessary changes to the certification system in order to make it more effective (see Figure 14). The

interviewees also suggested a number of concrete good practices that should be taken into account when implementing certification at farmer level.

The good practices most often mentioned by interviewees are explained in line with the proposed changes. It is important to note that several of the recommended changes or adaptations to the certification system cannot be implemented by certification schemes themselves, but have to be realized through a coordinated effort of different actors, in particular schemes, implementation partners and commercial players.

Figure 14: Changes recommended by interviewees to make certification more effective



The changes most frequently recommended were to increase farmer benefits, to foster demand, to harmonize tools between schemes and to improve the implementation of certification.

- **Increase tangible farmer benefits:** certification schemes should focus more on economic sustainability by:
 - helping farmers to get access to finance (e.g. by setting up credit schemes with buying companies or by partnering with local financial Institutions to reach preferential terms for certified farmers). A good practice which contributes to the economic empowerment of farmers is to combine access to finance with the provision of storage facilities, allowing farmers to sell their produce when prices are high.
 - guaranteeing market access (e.g. by stipulating long-term contracts or reaching agreements with traders who would commit to buy the whole volume produced by certified farmers).
 - providing stable prices and increasing the premium received by farmers, while ensuring it is paid consistently.

As a general recommendation, the direct outcomes of certification for farmers should be systematically monitored.

- **Foster demand:** In order to include more farmers but also to continue serving already certified farmers, certification schemes have to actively contribute to securing the demand for certified commodities, according to interviewees. This should be done by:
 - further improving product quality.
 - focusing more on effective marketing of certified products.
 - reaching international agreements involving the buyer side (e.g. as in the case of the Dutch Sustainable Trade Initiative) as a way of securing commitments of the industry.

The question to what extent demand stimulation by schemes is (economically) feasible, and in how far it depends on the decision of retailers to invest more in certified products, goes beyond the scope of this study.

- **Harmonize tools between schemes:** Interviewees recommend a harmonization of coffee and cocoa certification schemes in terms of standard setting, internal control systems and training material. Efforts to make scheme requirements more compatible have already been undertaken by means of benchmarking between schemes. In 2008 for instance, systems of the 4C Association and SAN/RA were benchmarked allowing producer groups already RA certified under the Sustainable Agriculture Network (SAN) standards to apply for the 4C license without going through the 4C verification process.
- **Improve implementation:** schemes should improve the implementation of certification in the following ways:
 - improving the rigor of internal control systems and strengthening audit quality by providing more training to auditors and conducting additional checks regarding the results of audits.
 - focusing on capacity-building and continuous improvement of farmer practices. In the area of capacity-building the establishment of farmer field schools, where farmers acquire both agricultural and farm management knowledge, was mentioned as good practice. Pre-audits or self-assessments are also seen as a way of raising farmers' awareness of their state of performance. As for continuous improvement, interviewees highlighted the benefits of the step-wise approach handled by verification schemes, which allows farmers to comply with more criteria and at an increasing level over the years.

Other changes recommended by interviewees are:

- **Reduce costs:** schemes should reduce costs of certification in general and costs incurred by farmers in particular. Interviewees see group certification as a possible solution as well as shifting the cost to the purchasing side (e.g. exporters). Industry paying certification fees is considered a good practice, as in the case of UTZ which charges a volume fee at roaster level.
- **Increase transparency:** schemes should become more transparent by (1) using modern technology for digital record-keeping by farmers, for tracing certified products and for the impact monitoring and by (2) systematically disclosing impacts and good practices to prevent that mistakes by one scheme are replicated by others.
- **Adapt to local situation:** the local situation of farmers and their cultural norms (e.g. regarding child labor) should be given more attention by schemes, not necessarily in the conceptual phase of the standard, but when applying the general standard in a specific local context. The fact that SAN has published 24 local interpretation guidelines on its webpage was not mentioned by interviewees.
- **Strengthen inclusiveness:** schemes should develop an approach allowing to certify both well and less well performing farmers focusing on continuous improvement.
- **Strengthen government endorsement:** schemes should engage national and regional governments in certification. In producing countries, schemes should promote responsible farming as a national issue and secure commitment and funding from government actors e.g. by demonstrating economic and environmental benefits from certification through pilot projects in select regions.

For the possible roles that governments can assume in the context of certification, see the following section.

3.3.2 What role can governments play?

As certification is increasingly implemented in both producing and consuming countries, the question arises how national and regional governments interact with certification and which role they can play in fostering certification effectiveness.

Evidence from literature⁴² and interviews suggests that governments can fulfil the following roles in relation to certification:

- **Providing legal frameworks:** governments can support resource management regimes by passing regulation and monitoring its implementation, as for example in the case of MSC and regulation on fisheries. In producing countries, governments can play a crucial role in enforcing land and property rights which constitutes a basis for effective certification. Banning illegal products by law (e.g. illegally harvested wood) can also indirectly promote certification.
- **Making policies:** when designing sustainability related policies, governments can integrate internationally recognized certification standards. Tunisia for example has developed its national organic agriculture policy based on the IFOAM standard. Import/export policies can also leverage certification to steer plans and commitments in a sustainable direction.
- **Sourcing:** being large purchasers of all kinds of agricultural commodities, governments can apply their purchasing power in combination with sustainable procurement policies to support certification.
- **Enabling:** standards cannot be implemented without existing basic provisions, such as physical infrastructure or access to finance. Governments in producing countries can assume the responsibility of creating this enabling environment for certification to work.

Last but not least, governments can act as experts (e.g. providing know-how and technical assistance to farmers in developing countries) and opinion-shapers (e.g. granting official support to private certification in consuming countries). In many cases, governments have already taken up one or several of the roles outlined above.

⁴² Resolve (2012).

4 Conclusions and recommendations

4.1 Conclusions

At the beginning of this report three hypotheses were set out. They were tested against the results of the study, with the following outcomes:

1. The concept of certification is exclusive and not inclusive.

The results from the study confirm this hypothesis. Certification is prone to exclude certain farmers and especially smallholders in different ways, the aspects most frequently identified being the need to be organized and the degree of basic education and professionalization of farmers. This means that the certification system favors organized, more advanced farmers over less developed farmers that are not part of a producer group. Hereby a difference has been observed between certification and verification schemes. Due to their lower entry level in the form of exclusion criteria combined with provisions for continuous improvement, verification schemes tend to be more inclusive than certification schemes which stipulate absolute requirements. On the other hand, schemes like 4C and BCI also seem to provide no premium and less organizational strengthening than Fairtrade and UTZ.

On the other hand, the study did not find sufficient evidence that certification systematically excludes smallholders. A significant number of interviewees stated that there were no barriers to inclusiveness of certification. In order to assess the hypothesis above from a quantitative perspective, data on the characteristics of certified farmers would be needed for all certification schemes. At present, no detailed data which would allow for a segmentation of certified farmers per scheme is available. This indicates a lack of transparency regarding the degree of inclusiveness of certification. We also need to be careful to position exclusion as a downside of certification. Certification can also be seen a driver for group forming, education and professionalization of farmers which can bring benefits to farmers they would not otherwise encounter.

2. Systemic adaptations are needed for the approach of certification in order to reach SUSTAINED's objectives to improve livelihoods of smallholder farmers in developing countries

The findings confirm this hypothesis. Certification systems need to be adapted if they are to improve farmer livelihoods in the long term. While certification has induced positive changes in the areas of access to training and farmer economy and working conditions, limited effects have been registered for the other dimensions of farmer livelihood (gender equality and democratic decision-making). From an economic perspective, the certification system, from the schemes down to the farmers, is currently not self-sufficient. This raises the question of how the current achievements of certification will be sustained in the future. The key changes to the certification system suggested by interviewees are (1) to increase farmer benefits (2) to foster demand for certified products and (3) to harmonize requirements and tools between schemes while building in a number of improvements. These will be elaborated upon in the recommendations.

3. Certification/verification must produce a material added value for all market participants.

This hypothesis could not be answered with the results of the study. Whereas it can be concluded that a material added value has to be created for farmers in order to engage them in certification, the study did not provide a clear answer for the other market participants. No evidence was obtained from the literature study or the interviews conducted to substantiate the hypothesis that all market participants need to derive tangible benefits from certification.

Going back to the research question whether certification or verification schemes can systematically help to improve the livelihoods of small farmers, we conclude that certification can help to improve farmer livelihoods, as long as it is implemented in combination with other interventions, most importantly the provision of training.

The most important effects resulting from sustainable production programs (independently from whether certification was the key driver for their implementation), were observed in the areas 'access to training' and 'farmer economy'. Concerning the economic situation of farmers, findings from the literature study and the interviews suggest that, in general, productivity and product quality increase and farm management improves as a result of these programs. In the majority of cases, this translates into a higher net income for farmers. While working conditions also slightly improved on certified farms, it is difficult to draw conclusions with regards to child labor. Several interviewees considered child labor as too complex of an issue to be addressed by certification alone. Literature found that child labor during school hours has reduced following certification, but still persists in certain cases.

In the area of gender equality findings are mixed. The participation of women in certified farms and cooperatives has positively developed in certain cases with more women becoming farm owners and members of cooperatives. In others, their situation remains unchanged or is negatively affected by an increase in workload due to certification. The influence of certification on democratic decision-making appears to be limited, as most schemes or implementation programs, with the exception of Fairtrade, do not explicitly address this aspect. At Fairtrade certified farms, literature notes the focus on democratic decision-making; however no tangible improvements are recorded by the studies reviewed. The preservation of the local natural environment instead was positively influenced by certification (both through requirements and regular controls) due to the introduction of sound environmental practices and the reduced use of pesticides in agriculture.

While most of the existing studies analyzed in the literature review do not attribute the effects observed at farm level to individual interventions (i.e. training versus certification), the interviews have provided insights in the role that certification plays in relation to training, which is the core part of implementation programs.

According to less than half of the interviewees, certification is a requirement for the improvement of farmer livelihoods as it triggers the implementation of sustainable production programs by external organizations. These programs are implemented with the purpose of preparing farmers for certification and use certification systems as a guiding framework for the provision of training and other inputs.

The majority of interviewees attributed the effects described to the implementation program. Within this group, half of the respondents considered certification as an 'add-on' to the program, in the sense that certification provides additional benefits and/or maintains achievements in the longer term by providing a structure, including regular controls. The other half viewed certification merely as a 'proof' of the improvements resulting from the program, as a confirmation towards processors and end-consumers that a given product had been produced under 'sustainable' conditions. In this last case, certification benefits the actors at the end of the value chain rather than farmers themselves.

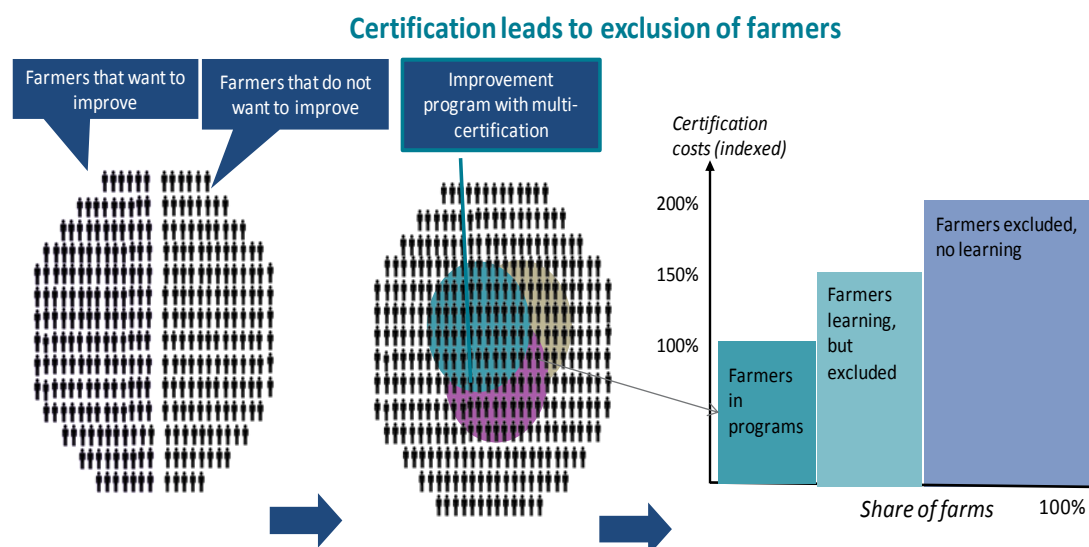
This analysis of the effect attribution shows that the certification system can only work in combination with the provision of training. Given that certification schemes generally do not train farmers themselves, they depend on other actors to achieve the secondary effects included in the theory of change (section 3.1.1) as well as their ultimate goal of improving farmer livelihoods. It is therefore essential for schemes to continuously engage external organizations that support farmers in improving their practices and in working towards fulfilling the requirements of certification.

Besides the effects at farm level, a particular finding of this study is the lack of transparency in the certification system. Transparency is missing with regards to the provisions of certification (e.g. distribution of premiums in the supply chain), the controls in place to ensure that requirements are met (e.g. % of farmers covered by audits; quality of audits), the inclusiveness of schemes (e.g. type of farmers certified) and the monitoring of effects. This lack of transparency of certification risks to affect its credibility and thus the continued support by its stakeholders.

4.2 Recommendations

Based on our findings and SUSTAINED's aim to improve smallholder livelihoods, we focus our recommendations on how certification systems can be adapted to benefit more and smaller farmers to a greater extent. Looking towards the future of certification, we have developed three scenarios as a basis for the debate in which direction certification will or can evolve. The first scenario 'Optimization and harmonization' includes recommendations for adapting the certification system. The scenarios are based on a situation where certification is exclusive (see Figure 15).

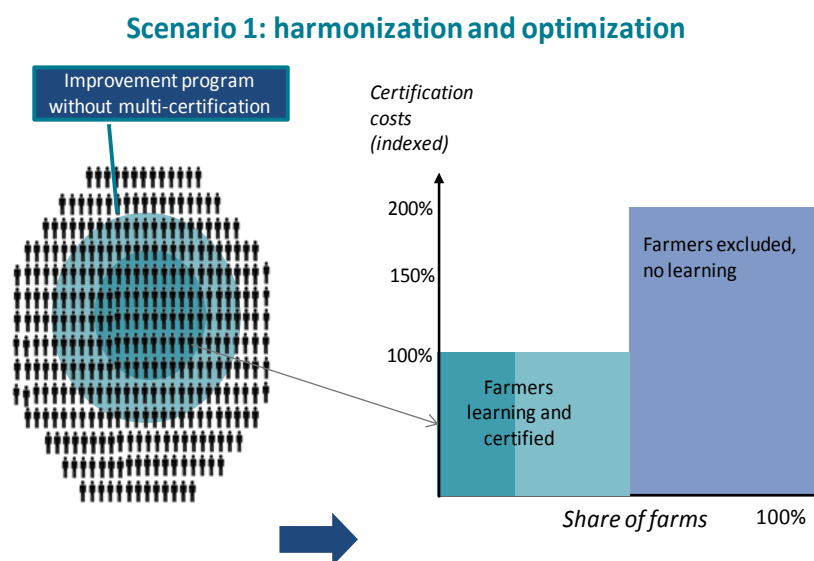
Figure 15: Base scenario



The base scenario shows that today certified coffee, cocoa and cotton constitute a small share of the world market for these commodities, thus only including a fraction of the global smallholder population. Farmers included in certification tend to represent the so-called 'low-hanging fruits', meaning that they can be certified most cost-effectively. The graph also illustrates that with multi-certification, the farmer groups targeted by improvement programs of different certification schemes overlap. This leads to inefficiencies and limited effect, as farmers benefit from similar measures several times whereas others outside the circles are not reached.

Departing from this base scenario, three options (which are not mutually exclusive) have been conceived regarding the adaptation and scalability of certification in the future.

Figure 16: Scenario 1



In scenario 1, certification schemes harmonize in order to avoid a waste of the resources that are currently made available in implementation programs. In a second step, they optimize the certification system in order to secure its effective operation in the future and to use the potential to improve farmer livelihoods to a greater extent.

In the process of harmonization, schemes develop a joint administration system, conduct joint audits, implement a joint training curriculum and agree on a common approach to impact monitoring, meaning that schemes use the same baselines, indicators and methods to assess impacts. Hereby it is important that certification is also benchmarked against verification as well as other models of improving farmer livelihoods. Steps in the direction of harmonization are already being undertaken at present, for example through the Certification Capacity Enhancement project (CCE) which is implemented by SAN/RA, UTZ and Fairtrade in cooperation with development organizations and the private sector. In the cotton sector, BCI and CmiA have agreed on a partnership agreement, covering benchmarking, fee sharing and joint efforts to measure impact. As a result of harmonization, schemes no longer compete with each other in reaching end consumers and farmers, thus reducing the complexity of the current certification landscape. At the same time, they create a more comprehensive set of good practices for farmers to follow. In order to reduce the cost of certification schemes, back offices can be shared and schemes could eventually even merge.

The following changes are required in order to optimize the certification system:

- Increase (economic) farmer benefits: help farmers to get access to finance (e.g. by making arrangements with local credit schemes), guaranteeing market access, providing stable prices and increasing the premium received by farmers, while ensuring it is paid consistently.
- Foster demand by further improving product quality and focusing more on effective marketing of certified products on the one hand and by reaching international agreements involving the buyer side (e.g. as in the case of the Dutch Sustainable Trade Initiative) as a way of securing commitments of the industry.
- Although raising consumer awareness that quality and sustainability (including increased income for smallholder farmers) may require investments may seem the most logical choice, it is very uncertain that this strategy will really influence markets quickly, especially in the less developed markets. Therefore another option of fostering demand is to explore the scope for lower prices of certified end-consumer products in developed markets, following the example of the UK, where certified chocolate for instance is sold at significantly lower

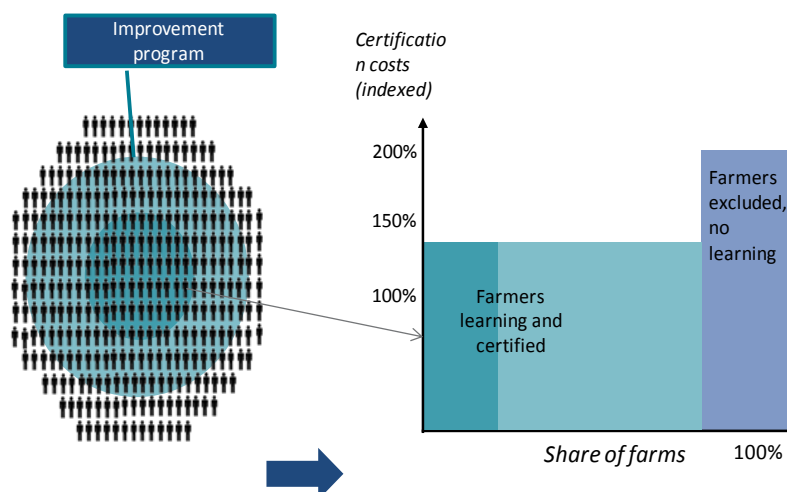
prices in mainstream retail, thus increasing accessibility to consumers and realizing economies of scale.⁴³

- Improve implementation by (1) reducing and re-distributing the costs of certification in favor of farmers⁴⁴, (2) strengthening the control system, including audit quality, (3) adapting better to the local cultural context when implementing the general standard and (4) taking a step-wise approach in combination with continuous improvement.
- Increase transparency by (1) using modern technology for digital record-keeping by farmers, traceability of certified products and impact monitoring and (2) systematically collecting data on the performance of certification and disclosing impacts and good practices to prevent that mistakes by one schemes are replicated by others. While schemes may be best positioned to take the responsibility for more serious data collection, brands working with certification also could step up and push for the disclosure of relevant data by the respective schemes.

Harmonization and optimization of schemes as outlined above are necessary before certification can be scaled-up to include more farmers, while continuing to benefit already certified farmers.

Figure 17: Scenario 2

Scenario 2: embedded in legislation of consuming country



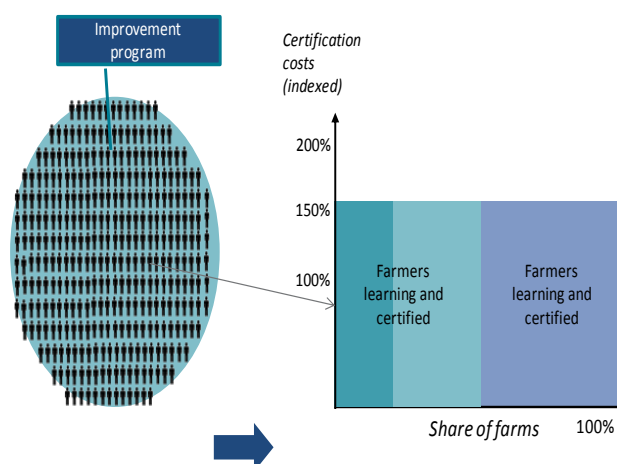
In scenario 2, politics and civil society agree on a limited number of standards for groups of commodities. For instance, one standard for annual crops and one for perennial crops. These standards are legally implemented in all major consuming countries creating a stable demand for certified products. Governments and certification schemes work together or build competing systems in order to reduce transaction costs. Investments in training activities are made on a continuous basis, funded by volume-based fees or bundling of certification projects to share risks and costs of the farmers less easy to include. The drawback of this scenario is that also farmers who do not want to be certified could be forced to comply with certification requirements.

⁴³ Euromonitor (2013).

⁴⁴ This requires an in-depth analysis of the effects of such a re-distribution both on the parties involved as on the certification system as a whole

Figure 18: Scenario 3

Scenario 3: embedded in legislation through a multilateral decision between producing countries (for example through the WTO)



In scenario 3 governments agree on one unified minimum standard implemented in all major producing countries to ban 'unfair' trade. This global standard can be complemented but not replaced by local standards. Countries continue competing on price to prevent a boom- and bust cycle. Investments in training activities are made on a continuous basis, supported by government. Similar as in scenario 2, all farmers might be forced to comply with certification under this scenario.

Final remarks

Further research is needed to assess the methods and outcomes of an up-scaling of certification in more detail, including effective ways of organizing non-organized farmers as well as the impact on farmer livelihood improvement in a scenario where all farmers comply with certification requirements.

Certification is currently at a critical stage of its development. The private sector has made ambitious commitments, with some companies aiming to source up to 100% sustainable commodities by 2020. Certification can play an important role in securing the achievement of these commitments. Yet, simultaneously, certification schemes are facing increased scrutiny from companies, consumers and civil society with regards to their ability to meet the promise of improved farmer livelihoods in their economic, social and environmental dimension.

In response, new initiatives arise. Certain brands have chosen to develop their own sustainable sourcing systems, using similar criteria as certification schemes and providing training and other inputs to the farmers they are working with, without seeking actual certification. Leading retailers are also increasingly reluctant to display more logos on products as they prefer to upload the sustainable image and credibility in their brand, rather than advertising certain schemes.

We would, therefore, also encourage a better benchmarking of effects (partly) attributed to certification with other development initiatives to improve smallholder farmer livelihood without a certification component. For instance by comparing cost per ton accompanied by a Social Return of Investment assessment. Here, the major brands could play a role to incorporate this in the monitoring and evaluation approach of their sustainable commodities programs.

In the context of these developments, it becomes clear that certification can only be successful in the long run by connecting the supply and demand side, disseminating sustainable agricultural practices and improving the livelihoods of smallholders across countries. Meanwhile, the schemes need to be harmonized and optimized with increased transparency towards the outside world. Some stakeholders even argue that one or two sets of criteria should be enough to drive sustainable production in all commodities.

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Appendix II: List of interviewees

Name of contact	Organization
George Watene	4C
Melanie Rutten	4C
Christoph Kaut	Aid by Trade Foundation
Clementine Leahy	Armajaro
Vince McAleer	Armajaro
Anke Massart	Barry Callebaut
Daudi Lelijveld	Barry Callebaut
Lise Melvin	BCI
Frans Grey	Cargill
Mathurin Bationo	Cocoa farmer, Coopamas/Maferé, Ivory Coast
Achilles N'Guessan	Cocoa farmer, Nocao/Oumé, Ivory Coast
Carlos Murcia	Coffee farmer, ACPROA, El Salvador
César López	Coffee farmer, UNIOCAFE, Honduras
Alexandre Vieira Costa Monteiro	Coop Cooxupe
Angshuman Bhattacharya	Cotton certification expert, KPMG India
Carlos Garcia	CRECE (Café de Colombia)
Marcela Urueña	CRECE (Café de Colombia)
Elena Rueda	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) /Sustainable Cocoa Forum
David Rosenberg	ECOM
Kate Kilpatrick	Fairtrade
Marc Leynart	Faso Coton
Michael Opitz	Hanns R. Neumann Stiftung (HRNS)
Jens Soth	Helvetas
Beatriz Fischersworing	HRNS Colombia
Verena Fischersworing	HRNS Guatemala
Bill James Tejada	HRNS Honduras
Yao Pokou	HRNS Ivory Coast
Stefan Cognigni	HRNS Uganda
Kristin Komives	ISEAL
Norma Tregurtha	ISEAL
Mario Cerutti	Lavazza
Hans Jöhr	Nestlé
Tsion Taye	Neumann Kaffee Gruppe Ethiopia
Annemieke Wijn	Rainforest Alliance
Sven Hähnsen	Rothfos
Andre de Freitas	SAN
Kerry Turner	Source Trust
Friedel Huetz-Adams	SÜDWIND
Achim Lohrie	Tchibo
Carl Cervone	Technoserve
Tim Faveri	Tim Hortons

Tony Mugoya

Leif Pedersen

Tessa Laan

David Barry

Jenny Walter-Thoss

Uganda Coffee Farmer Alliance

UNDP

UTZ

Volcafe Uganda

WWF

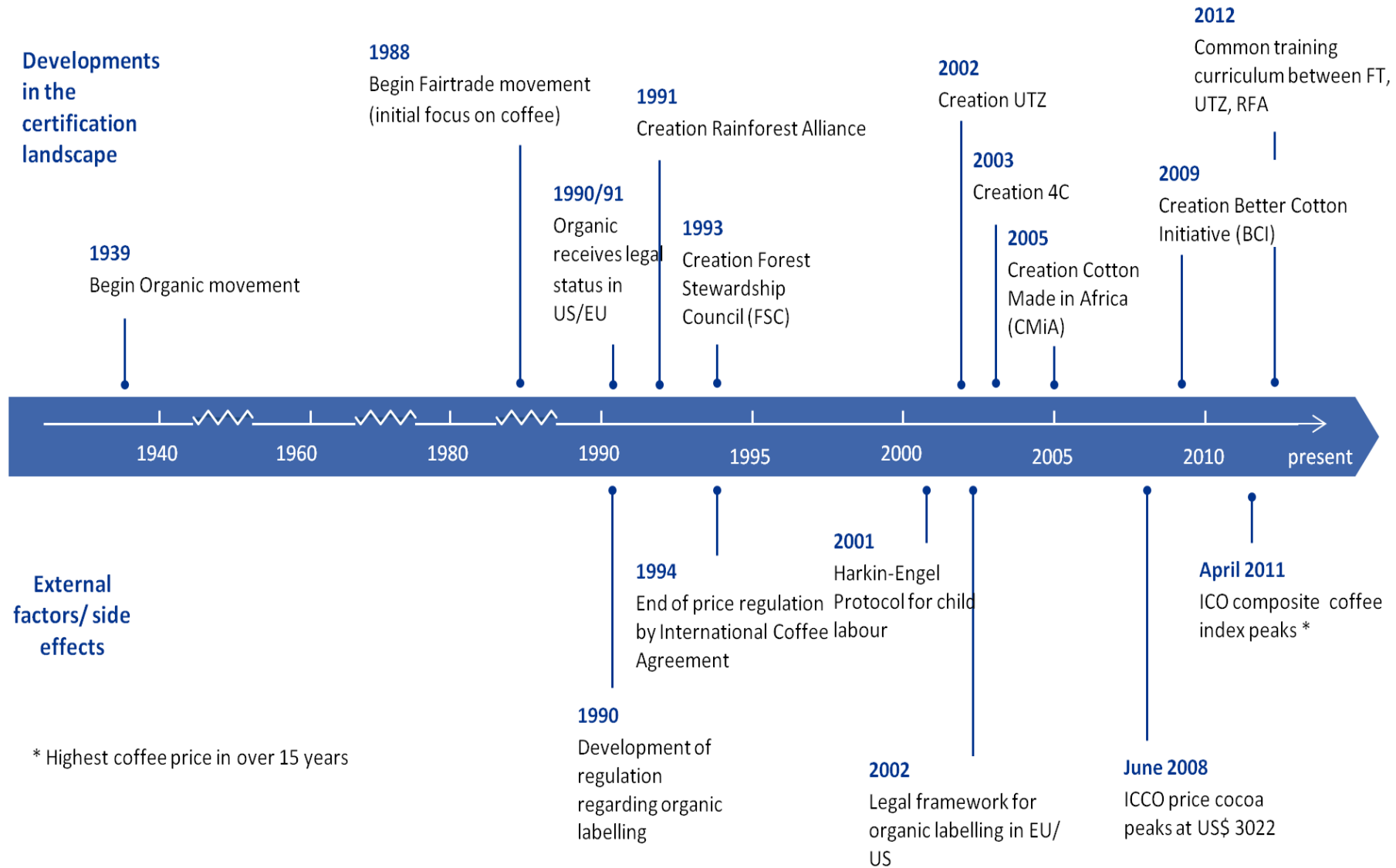
Appendix III: Definitions

Access to education and training	Training provided by schemes or program implementation partners to farmers. Initiatives by schemes to encourage education of children.
Certification	A verification process that requires audits on farmers (suppliers), buyers, traders and processors. A certificate is issued to confirm compliance with the certification requirements. Compliance is audited by an independent third-party on a recurring basis.
Certification schemes	Organizations determining the rules for when a product is certified. These include rules for farmers, supply chain actors and certifying bodies.
Farmer economy	Net impact on income resulting from input provision, good agricultural practices, quality and yield improvements, premium and/or wages. Improved farm management.
Gender equality	Provisions of schemes to ensure equal rights between men and women and affirmative action taken to empower women at farm and/or producer group level.
Group level	Effects of certification on the organizational strengthening of producer groups.
Identity preserved	Principle aims to preserve the identity of the scheme compliant product and to enable final buyers to claim that their purchased product is compliant with the respective scheme.
Implementation program	Program implemented by an organization (e.g. company or NGO) that aims at improving farmer livelihoods by providing training and other inputs and by encouraging continuous improvement. The implementation program can include a certification process as a guiding framework and/or to evaluate progress of the program.
Farmer livelihoods	Living conditions of small farmers, which are assessed through the following dimensions: 'access to training and education', 'working conditions incl. child labor', 'farmer economy', 'gender equality', 'democratic decision-making' and 'local natural environment'.
License fee	Fee paid by processors based on the total value of sales of certified products.
Local natural environment	Restoration and preservation of local ecosystems and biodiversity.

Mass balance	Principle means that certified produce may be mixed with conventional produce. At any stage of the supply chain, certification systems require the respective actors to keep administration of the volume going in and out of the unit.
Membership fee	Fixed fee paid by a buyer in the supply chain on an annual basis.
Premium	The amount of money paid to the farmer for the product in addition to the price of conventional (non-certified) products. Some schemes use market mechanisms to determine the premium, Fairtrade pays a fixed premium on top of the price.
Rules for governance of producer groups	Rules by schemes ensuring democratic governance and accountable and transparent management of producer groups.
Rules for producer rights	Rules by schemes safeguarding producer rights, including representation rights (i.e. right to form or join trade unions).
Segregation	Principle implies that certified produce may not be mixed with conventional produce at any stage of the supply chain.
Smallholder farmer	The term ‘smallholder’ refers to the limited resource endowments of certain farmers relative to other larger scale and more commercial farmers. The precise definition differs among countries with variations in farm size, allocation of resources, use of external inputs and proportion of food crops that are marketed. Smallholder farmers characteristically have limited business skills, low financial literacy and financial management skills, little knowledge management and risk aversion. ⁴⁵
Verification	The verification system includes farmer self-assessment against core criteria and progress requirements. If audits are passed successfully a license to sell the verified product under the scheme name is issued (not a certificate).
Volume fee	Fee paid by producer group, first buyer or processor, based on quantity of product bought or sold.
Working conditions	Conditions for workers, farmers and their family relating to the use and storage of chemicals, housing, healthcare, contracts and wages, worker rights, child labor.

⁴⁵ African Development Bank (2012). Making Finance Work for Africa. Policy brief on agricultural finance in Africa.

Appendix IV: Timeline of certification



Appendix V: Detailed literature study on effects of certification

Below the results of the literature study are presented in detail, broken down by type of effect, commodity and number of articles mentioning an effect.

Results

The literature review found evidence that certification has improved the social, economic and environmental conditions of farmers and the communities they live in. At the same time, there are certain negative effects and areas where certification has no effect. The total number of studies and the amount of studies on coffee, cocoa or cotton supporting a given argument are indicated in brackets.

Access to education and training

Positive effects:

- Access to skill/knowledge development due to training. (11; 6 coffee; 3 cocoa; 2 cotton)
- Improved educational situation of children. (7; 4 coffee; 2 cocoa; 1 cotton)

No effects:

- Low reading and writing skills make it challenging to successfully complete training. (1; 1 coffee, cocoa and cotton)

Certification itself does not provide training, however training is a core element of the implementation programs preparing farmers for certification. In the case of certain verification schemes, e.g. CmiA, training is integrated in the verification process. For the discussion around the attribution of effects between certification and implementation programs, please refer to section 4.2.2.

Approximately seven studies describe skill development due to training⁴⁶, for instance on storing products, chemical use, basic hygiene⁴⁷, waste-management, bookkeeping, production methods⁴⁸, farm operations, environmental issues, marketing⁴⁹, product quality and food safety⁵⁰. Klier & Possinger (2012) mention that farmers in coffee, cocoa and cotton experience challenges to successfully complete trainings due to low reading and writing skills.

The educational situation of farmers' children has been addressed by seven studies. Krain et al. (2011) mention that farmers are increasingly aware of the educational needs of their children. The findings of other studies go beyond awareness, stating that certification improves access to education and school attendance⁵¹. Predictable, stable or increased income of certified farms enables parents to send their children to school⁵².

Working conditions

Positive effects:

- Safer/better working practices. (4; 2 coffee, 1 cocoa, 1 cotton)
- Reduced child labor during school hours. (2; 1 coffee, 1 cocoa)

No effects:

- Child labor during school hours still occurs in certain cases. (1; 1 cocoa and cotton)

⁴⁶ Kuit, Van Rijn and Jansen (2010) Assessing 4C implementation among small-scale producers. An evaluation of the effects of 4C implementation in Vietnam, Uganda and Nicaragua.

⁴⁷ Riisgaard, Michuki, Gibbon and Bolwig (2009) The Performance of Voluntary Standard Schemes from the Perspective of Small Producers in East Africa.

⁴⁸ Krain, Millard, Konan and Servat (2011) Trade and Pro-Poor Growth: Introducing Rainforest Alliance Certification to Cocoa Production in Côte d'Ivoire.

⁴⁹ Rainforest Alliance (2012) Evaluating the results of our work. Rainforest Alliance Certification on Cocoa Farms in Cote d'Ivoire.

⁵⁰ UTZ Certified (2013) From bean to cup. The impact of UTZ CERTIFIED on coffee growers.

⁵¹ Bacon et al. (2008) Are Sustainable Coffee Certifications Enough to Secure Farmer Livelihoods? The Millennium Development Goals and Nicaragua's Fair Trade Cooperatives;

Klier & Possinger (2012) Assessing the Impact of Fairtrade on Poverty Reduction through Rural Development.

⁵² Riisgaard et al. (2009); Nelson & Smith (2011).

- Pesticide application work carried out by children still occurs on 4C verified farms despite being classified as unacceptable practice by the scheme. (1; 1 coffee)

Negative effects:

- Increased work burden due to certification requirements of Organic (1; 1 cotton)

According to Klier and Possinger (2012), overall child labor has reduced as a result of certification. However, in the cotton and cocoa sectors there are still indications that child labor at certified farms persists. Other studies address the improved access to education and improved school attendance, but they do not mention whether the number of children working in the fields has decreased as a result.

As a result of organic certification, workers in the cotton sector are less exposed to toxics in pesticides, which positively impacts their health⁵³.

Literature describes a number of other positive effects of certification on working conditions, namely higher wages, the introduction of formal contracts for workers and safer and healthier working conditions thanks to protective clothing, equipment and improved access to first aid⁵⁴. Other studies, for instance on Organic⁵⁵, focus on safe worker practices, but they do not address the effects of these efforts.

Gender equality

Positive effects:

- Increased participation of women in certified farms. (2; 1 coffee, 1 cotton)
- Empowerment of women (2; 1 coffee and cocoa, 1 cotton)

No effects:

- Social norms/traditional division of labor limit women's participation in cooperatives. (4; 1 coffee, 2 cocoa, 1 cotton)
- Women seem to carry the heaviest/most time consuming workload (1; 1 coffee)

The participation of women has improved in certified farms by offering training on gender equality and encouraging women to participate in selling coffee⁵⁶. Formation of gender committees are being formed to secure women's rights⁵⁷ and Organic farming organizations strengthen women⁵⁸.

On the other hand, social norms and the traditional division of labor are still limiting women's participation in cooperatives in all sectors⁵⁹. One study finds that women are excluded from decision-making on the allocation of premium money to community projects⁶⁰. Another example given is that in certain regions (e.g. Ivory Coast) women are excluded from working with cash crops, as this is a traditional cultivation focus of men, with women growing food crops⁶¹.

Farmer economy

Positive effects:

- Reduced debt vulnerability. (2; 2 cotton)
- Higher prices. (7; 4 coffee, 1 cocoa, 2 cotton)
- Higher yields. (6; 2 coffee, 2 cocoa, 2 cotton)
- Quality improvements. (5; 2 coffee, 1 cocoa, 2 cotton)
- Increased access to credit facilities (6; 5 coffee, 1 cocoa)

⁵³ Nelson and Smith (2011) Fairtrade Cotton: Assessing impact in Mali, Senegal, Cameroon and India.

⁵⁴ UTZ Certified (2013).

⁵⁵ Haynes, Cubbage, Mercer and Sills (2012) The Search for Value and Meaning in the Cocoa Supply Chain in Costa Rica.

⁵⁶ Riisgaard et al.(2009).

⁵⁷ Klier & Possinger (2012).

⁵⁸ Ferrigno, Ratter, Ton, Vodouhe, Williamson & Wilson (2005) Organic Cotton: A new development path for African Smallholders?

⁵⁹ Klier & Possinger (2012); Krain, et al. (2011); Nelson and Smith (2011).

Ruben, Fort & Zuniga-Arias (2009) Measuring the Impact of Fair Trade on Development.

⁶⁰ Bacon et al. (2008).

⁶¹ Krain et al. (2011).

- Improved market opportunities (7; 5 coffee, 2 cocoa)
- Higher net-income (4; 2 coffee, 1 cocoa, 1 cotton)

No effects:

- Reasons for poverty (low yields, low educational level and farmer's lack of entrepreneurial skills) not addressed (1; 1 coffee)
- Farm management problems not solved. (1; 1 coffee)
- Net revenue Organic is below the poverty line (1; 1 cotton)
- Prices received unchanged. (2; 2 coffee)
- Yield level unchanged. (2; 1 coffee, 1 cotton)
- Net income unchanged. (3; 3 coffee)

Negative effects:

- Increased costs. (6; 3 coffee, 3 cotton)
- Lower yields (Organic). (5; 4 coffee, 1 cotton)
- Increased difficulty to obtain the required product quality (1; 1 cotton)
- Net income Organic is lower than conventional net income (2; 2 coffee)

Studies show an increase in the average price that farmers receive for cotton⁶², cocoa⁶³ and coffee⁶⁴. It was also observed that in coffee income increased⁶⁵ due to the lower costs⁶⁶, whereas in cocoa higher yields led to increased income⁶⁷. In some cases, the fact that yields were more stable also had a positive effect on incomes, since stable quantities of certified cocoa were delivered to commercial partners. Moreover, the guaranteed payment of a premium⁶⁸ to farmers helped to reduce their debt vulnerability⁶⁹.

On the other hand, six studies observe an increase of costs due to certification. These costs are production costs in coffee⁷⁰ and cotton⁷¹. Some studies address the question whether the increased incomes outweigh this increase in costs. In four studies (on SAN/RA, UTZ, Fairtrade and Organic) an increase in net income was found⁷², on the contrary in other studies (Organic) the net income was lower or even negative compared to conventional farms. In order to achieve a similar (positive) net income for Organic certified farms as for conventional farms, the price premium would have to increase⁷³.

As many as six studies mention yield increases caused by several drivers. In cocoa⁷⁴ yields increased by using pest management methods and improving production methods with regards to crop

⁶² Ferrigno, et al. (2005).

⁶³ Krain, et al.(2011).

⁶⁴ Beuchelt, Zeller & Oberthauer (2008) Justified hopes or utopian thinking? The suitability of coffee certification schemes as a business model for small-scale producers;

Bolwig et al. (2007) Certified organic export production - implications for economic welfare and gender equity amongst smallholder farmers in tropical Africa;

Kilian et al. (2004) Can the Private Sector be Competitive and Contribute to Development through Sustainable Agricultural Business? A Case Study of Coffee in Latin America.

⁶⁵ UTZ Certified (2013).

⁶⁶ Bolwig et al. (2007).

⁶⁷ Rainforest Alliance (2012); Paschall (2012) The Role of Third Party Certification in Improving Small Farmer Livelihood.

⁶⁸ Krain et al. (2011).

⁶⁹ Ferrigno et al. (2005).

⁷⁰ Beuchelt et al.(2008); Kilian et al. (2004); Lyngbaek et al. (2001) Productivity and profitability of multistrata organic versus conventional coffee farms in Costa Rica.

⁷¹ Nelson & Smith (2011);

Balineau (2013) Disentangling the Effects of Fair Trade on the Quality of Malian Cotton;

Tirado (2010) Picking Cotton. The choice between organic and genetically-engineered cotton for farmers in South-India.

⁷² Riisgaard et al. (2009); Tirado (2010); Rainforest Alliance (2012);

Rainforest Alliance (2013) Evaluating the results of our work. Impacts of Rainforest Alliance Certification on Coffee Farms in Colombia.

⁷³ Kilian et al. (2004); Lyngbaek et al. (2001).

⁷⁴ Paschall (2012).

management, tree pruning, raising seedlings and agro forestry⁷⁵. In cotton, farmers benefitted from higher yields after the health of local ecosystems was restored. The agricultural experience of farmers in cotton cultivation was another determinant for yield increases⁷⁶. Studies on coffee⁷⁷ describe yield increases due to improved agronomic practices. Yet, yield increases are not a typical consequence of certification. Five studies mention a decrease in yields in coffee⁷⁸ and cotton, mainly due to conversion to Organic which is not as productive as other production systems in the first years of implementation⁷⁹.

Quality improvements are cited in five studies and are relevant for coffee⁸⁰, cocoa⁸¹ and cotton, where quality improvements were achieved due to price incentives and/or technical assistance⁸². In combination with improved quality, Organic certification has also improved access to high value export markets⁸³. Regarding the price premium however, farmers often experience difficulties in achieving the required quality for receiving the premium. This challenge is particularly significant for organically managed farms⁸⁴.

In terms of improved market access, certification provides the opportunity for farmers to differentiate their products in a competitive market⁸⁵. The application of good practices and the resulting creation of trust of traders are one important reason for improved market access⁸⁶.

No effect of certification was found for the quality of farm management⁸⁷.

Local natural environment

Positive effects:

- Less (toxic) pesticide/chemical use (5; 3 coffee; 2 cotton)
- Safer environmental practices (7; 5 coffee, 2 cocoa)
- Regular controls by schemes help to protect the environment. (1; 1 coffee)
- Wildlife protection by Rainforest Alliance (2; 1 coffee, 1 cocoa)

Negative effects:

- Higher water consumption compared to conventional cotton for one scheme (1; 1 cotton)

According to several studies, less pesticides or chemicals are used in the context of certification, as this is part of scheme requirements and/or addressed in trainings⁸⁸. In general, better environmental practices such as planting shade trees and marking areas for wildlife protection were adopted⁸⁹, which, together with regular controls by schemes, had a positive effect on the local natural environment⁹⁰. Other practices witnessed at certified farmers were reducing the use of toxic pesticides, applying water saving measures and improving disposal of waste and recycling⁹¹. SAN/RA and UTZ had more specific impact regarding environmental aspects than Fairtrade due to awareness raising programs on

⁷⁵ Krain et al. (2011).

⁷⁶ Ferrigno et al. (2005); Nelson & Smith (2011).

⁷⁷ Riisgaard et al. (2009).

⁷⁸ Kilian et al (2004); Kuit et al. (2010); Lyngbaek et al. (2001); Valkila (2009) Fair Trade organic coffee production in Nicaragua — Sustainable development or a poverty trap?

⁷⁹ Ferrigno et al. (2005).

⁸⁰ Riisgaard, et al. (2009); UTZ Certified (2013).

⁸¹ Krain et al. (2011).

⁸² Nelson & Smith (2011); Balineau (2013).

⁸³ Nelson & Smith (2011).

⁸⁴ Kilian et al. (2004).

⁸⁵ Kilian et al. (2004); UTZ (2013).

⁸⁶ Krain et al. (2011).

⁸⁷ Kilian, et al. (2004).

⁸⁸ Kuit et al. (2010); Tirado (2010); Nelson and Smith (2011); COSA (2013); Vietnam coffee: A COSA Survey of UTZ Certified Farms.

Imaflora (2009) Does certification make a difference? Impact assessment study on FSC/SAN certification in Brazil.

⁸⁹ Krain et al. (2010).

⁹⁰ Haynes, et al (2012); Klier & Possinger (2012).

⁹¹ COSA (2013); UTZ (2013).

diversification of production⁹² and the disposal of water and waste⁹³. Farming systems working with CmiA rely on precipitation rather than irrigation. CmiA also registered a lower impact on climate change due to lower emissions resulting from non-mechanical harvesting⁹⁴.

Group level

Positive effects:

- Strengthening of communities (4; 1 coffee and cocoa, 1 coffee, 1 cotton)
- Cooperatives provide better prices (1; 1 coffee)

No effects:

- Involvement of farmers in decision making is limited (1; 1 cocoa)
- Only farm owners can participate in decision making (1; 1 cocoa)

Communities are being strengthened by the establishment and development of cooperatives⁹⁵ and specifically in the case of Fairtrade by investing the premium in community projects on education and healthcare⁹⁶. According to Bacon et al. (2008) farmers also get technical assistance from cooperatives and cooperatives pay better prices to farmers. The involvement of farmers in decision-making of cooperatives is however limited⁹⁷ and only farm owners can participate in decision-making⁹⁸.

⁹² Klier & Possinger (2012).

⁹³ Rainforest Alliance (2013); Imaflora (2009); UTZ Certified (2013); COSA (2013).

⁹⁴ Nill & Wick (2013) The Carbon and Water Footprint of Cotton made in Africa. Assessment of Carbon and Water Footprint of Cotton made in Africa as compared with average conventional cotton.

⁹⁵ Ferrigno, et al. (2005); Bacon et al. (2008).

⁹⁶ Klier & Possinger (2012); Nelson & Smith (2011).

⁹⁷ Krain, Millard, Konan & Servat (2011).

⁹⁸ Klier & Possinger (2012).

Appendix VI: Detailed system analysis

Aspect	Certification scheme						
	Fairtrade	SAN/RA	UTZ	Organic	4C	CmiA	BCI
<i>Establishment</i>	1988	1986	coffee (2002), cocoa (2009)	1972 (IFOAM)	2006	2005	2009
<i>Long-term vision</i>	A world in which all producers can enjoy secure and sustainable livelihoods, fulfill their potential and decide on their future. Important aspects of poverty reduction and sustainable development through trade are informed consumer choices and the support of people, businesses and civil society institutions in the developed world.	Provide people with the means to extract a sustainable livelihood from the land, give businesses the opportunity to source responsibly produced goods, make sustainable goods and services available and affordable to consumers, and you have connected the supply and demand sides of a market-driven engine for a sustainable economy.	A world where sustainable farming is the norm is a world where: farmers implement good agricultural practices and manage their farms profitably with respect for people and planet, industry invests in and rewards sustainable production, and consumers can enjoy and trust the products they buy.	Worldwide adoption of ecologically, socially and economically sound systems that are based on the principles of Organic Agriculture.	Unite all relevant coffee stakeholders in working towards improvement of the economic, social and environmental conditions of coffee production and processing to build a thriving, sustainable sector for generations to come.	Providing higher incomes and better livelihoods for smallholder farmers by means of the steady growth in the international Demand Alliance, increasing the demand for African cotton.	Transforming cotton production worldwide by developing Better Cotton as a sustainable mainstream commodity.
<i>Target groups</i>	Smallholders, professional farms for certain commodities and workers (only organized farmers).	Smallholders, professional farms and workers (only organized farmers).	Smallholders, professional farms and workers.	Smallholders and professional farms (only organized farmers).	Farmers (minimum supply of one full container load) and workers.	African smallholders.	Smallholders, professional farms and workers.

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Aspect	Fairtrade	SAN/RA	UTZ	Organic	4C	CmiA	BCI
<p><i>Governance</i> - Representation of producers at General Assembly - Representation of producers at Standards Committee</p>	<p>Members of Fairtrade International meet once a year at the General Assembly. This assembly, which consists of 50% producer representatives and 50% labeling initiative representatives, decides on membership issues, approves annual accounts, and ratifies new Board directors. The Board appoints the Standards committee, which approves the Fairtrade standards. Representation of producers at the Standard Committee is determined by means of a quota.</p>	<p>The Sustainable Agriculture Network (SAN) sets the standards for SAN/RA. The General Assembly of SAN is composed of one representative from each of the member organizations (NGOs), not including producers. The International Standards Committee (ISC) is appointed by the Board of Directors. The ISC consists of 4 SAN representatives and 8 representatives from technical side, production -business sector and NGO/Community.</p>	<p>UTZ does not have a General Assembly. The Standards Committee is responsible for approving new product codes (standards) and changes to existing product codes. Its 6-12 members are appointed by the Board, minimum 2 producer/supply chain representatives.</p>	<p>Governed by (supra-) national organic legislation.</p>	<p>The General Assembly elects the Council which, through a multi stakeholder process, determines the certification requirements. Coffee farmers, trade and industry, as well as civil society members are equally represented in every 4C governance organ, including: the General Assembly, the Council, the Technical Committee and the Mediation Board.</p>	<p>CmiA follows a top-down approach. It does not have a General Assembly. The Aid by Trade Board of Trustees is the highest decision making body and consists of leading personalities from key non-governmental and academic institutions as well as business. There are no rules about the constitution of the daily management.</p>	<p>BCI is a membership-based multi-stakeholder initiative. All members can attend the General Assembly, which elects Council and votes on proposed changes to the BCI statutes. Members within the Civil Society, Producers, Retailers and Brands, and Suppliers and Manufacturers categories have the opportunity to be elected on the Council.</p>
<p><i>Verification and/or certification mechanisms and procedures (self-assessment, 3rd party verification, etc.)</i></p>	<p>Third Party Audit every three years (every six years for smallholders), with 1-2 surveillance audits in between. Third Party Audit may take place more frequently for certain groups.</p>	<p>Annual Third Party Audit of each certificate holder.</p>	<p>Annual Third Party Audit of each certificate holder.</p>	<p>Certification body has to have a written policy on inspection frequency of already certified operators. The policy shall require that certified operators are inspected at least annually. There also have to be provisions for additional inspections.</p>	<p>Self-Assessment on a yearly basis and Third Party Audit every three years for each unit in a producing country that can have an unlimited number of suppliers.</p>	<p>Self-Assessment and Third Party Audit every two years.</p>	<p>Annual farmer self-assessment against minimum criteria and progress requirements; BCI Regional Coordinator decides if Learning Groups of farmers comply with requirements, carries out second party checks. Annual third party verification.</p>

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<i>Sanctions</i>	For each non conformity being identified, the audited organization needs to define corrective measures. The certification body follows up on these corrective measures. In case of non-conformity with major compliance criteria/non-fulfillment of corrective measures the following sanctions can be imposed: Withdrawal of Permission to Trade and Denial of Certification; Suspension; De-certification.	In case of non-conformity a corrective action plan has to be defined, the implementation of which is followed-up by an audit. Certification of an organization will be cancelled in the specific cases of non-compliance.	In case of non-compliances both prior and during certification a corrective action plan has to be set up in due time (recommended: 6-12 weeks). If applicable, a re-audit takes place. If the corrective actions have not been undertaken and checked by the CB within this timeline, the CB has to immediately suspend the certificate holder for a period of 3 months.	The certification body has to have a documented range of sanctions including measures to deal with minor non-conformities with the standards. Withdrawal of certification in case of serious non-conformities; procedures for immediate suspension of certification in cases of manifest non-conformities or fraudulent activity.	In case where non-conformity is found, corrective actions following verification are required. Those corrective actions are based on a specific plan developed by 4C Units which addresses the non-conformities reported. The plan also outlines the activities which 4C Units need to implement in order to improve their current performance. No detailed public information available on provisions for suspension.	For an incidental non-compliance being identified the Managing Entity must implement immediate mechanisms in order to ensure compliance with the exclusion criteria. The follow-up verification must take place within a period of 12 months. In case of systematic non-compliance, CmiA unit loses its license to sell CmiA cotton until a follow-up verification provides evidence that exclusion criteria no longer apply and necessary controls are in place.	If after 2 years Learning Group fails to meet 80+ % level of compliance with Minimum Production Criteria, compliant farmers should join a performing Learning Group within the same Producer Unit. Non-compliant farmers should step out of the support programme and consider alternative options. A violation of the BCI Code of Practice may lead to the suspension and/or termination of membership.
<i>Traceability</i>	Mass balance (only cocoa), Segregation for most other crops.	Mass balance, Segregation and Identity Preserved.	Mass balance, Segregation and Identity Preserved.	Mass balance, Segregation.	No information.	Mass balance, Segregation.	Mass balance and Segregation (at ginnery level only)
<i>Logo on downstream product?</i>	Yes	Yes	Yes	Yes	No	Yes	No
<i>Fee structure</i>	License fee paid by logo users. Membership fee. Certification fee.	Volume fee.	Membership fee (cocoa). Volume fee (paid by processor).	Membership fee.	Membership fee.	License fee. Membership fee. Volume fee.	Membership fee Volume fee (paid by processor)
<i>Donor funding</i>	Yes	Yes	Yes	Depends on the individual organic certification scheme	Yes	Yes	Yes
<i>Payments</i>	Audit costs paid by producers. Premium paid to certificate holder. Minimum price paid to certificate holder.	Audit costs paid by producers. Premium to certificate holder occurs, is not guaranteed.	Premium paid to certificate holder.	Audit costs paid by producers. Premium paid to certificate holder.	Audit costs paid by producers. No evidence for premium.	No evidence for premium.	No evidence for premium.

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<i>Organizational strengthening</i>	Rules for governance of cooperatives. Rules for producer rights (including representation rights).	Rules for governance of cooperatives. Rules for producer rights (including representation rights).	Rules for governance of cooperatives. Rules for producer rights (including representation rights).	Rules for producer rights (including representation rights).	Rules for producer rights (including representation rights).	Rules for producer rights (including representation rights).	Rules for producer rights (including representation rights)
<i>GMO (is the use of genetically modified organisms allowed - yes/no)</i>	No	No	Yes, under certain conditions	No	No	No	Yes
<i>Gender equality</i>	Equal rights. Affirmative action on producer group level (mandatory).	Equal rights.	Equal rights. Affirmative action on producer group level (mandatory).	Depends on the individual organic certification scheme.	Equal rights.	Equal rights Affirmative action on producer group level (mandatory).	Equal rights
<i>Youth rights</i>	Exclusion of child labor. Raising awareness for education of children. Funding educational activities.	Exclusion of child labor. Guarantee of access to education, decent housing and healthcare for farmers' children.	Exclusion of child labor. Raising awareness for education of children.	Depends on the individual organic certification scheme.	Exclusion of child labor.	Exclusion of child labor. Raising awareness for education of children. Co-financing of schools.	Exclusion of child labor Raising awareness for education of children

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