

Baseline study of Fairtrade Cotton in West Africa

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List of key acronymes used in the report

AICB	Association Interprofessionnelle du Coton du Burkina Faso
APROCOB	Association Professionnelle des Sociétés Cotonnières
BCI	Better Cotton Initiative
CMDT	Compagnie Malienne pour le Développement des Textiles
CNCAS	Caisse Nationale de Crédit Agricole (Senegal)
FASO COTON	1 of the 3 cotton zones in Burkina Faso (in the centre of Burkina Faso)
FCFA	Franc of the Communauté Financière Africaine
FNPC	Fédération Nationale des Producteurs de Coton (Senegal)
GMO	Genetically Modified Organism
GPC	Cotton product groups at village level in Senegal and Burkina Faso
ICS	Internal Control System
IER	Institut d'Economie Rurale (Mali)
ILO	International Labour Organization
INERA	The national research institute in Burkina Faso, which does research on cotton
IPC	Interprofession du coton du Mali
PPE	Personal Protective Equipment
PPI	Progress out of Poverty Index
PPP	Purchasing Power Parity
SOCOMA	1 of the 3 cotton zones in Burkina Faso
SODEFITEX	Société de Développement et des Fibres Textiles (Senegal)
SOFITEX	1 of the 3 cotton zones in Burkina Faso (in the West of Burkina Faso)
SPO	Small producer Organization
ToC	Theory of Change
UDPC	Department level subunit of the UPPC (Burkina)
UNPCB	Union Nationale des Producteurs de Coton du Burkina Faso
UN-SCPC	National union of cotton producers in Mali
UPPC	Provincial level sub-union of the UNPCB (Burkina)
US-GPC	Department level subunit of FNPC (Senegal)

Executive Summary

This report presents the results of a baseline study in the cotton sector in West-Africa. Data was collected at Fairtrade certified and non-Fairtrade certified farmer and smallholder producer organization organizations (SPO) in Senegal, Mali and Burkina Faso. It included farmer surveys with 177 Fairtrade certified farmers and 87 non-certified farmers. Of the 177 Fairtrade certified farmers, 104 were also Organic certified, the remainder are referred to as Fairtrade (only). In addition, surveys were conducted with SPOs; eight Fairtrade certificate holders, 22 certified first degree member organizations of these certificate holders and 17 non-certified producer organizations. The study took place in March and April 2015.

Fairtrade intends to follow this baseline study with an impact evaluation within four years to measure the progress made since the introduction of the Fairtrade Sourcing Program (FSP)¹. This future evaluation should measure the differences between Fairtrade farmers and counterfactual farmers in the same time period in order to identify Fairtrade's contribution.

Characteristics of farms surveyed

Most cotton farmers in the three countries started producing cotton in the 1990s. The average farm size was ten ha, of which 1.8 ha cotton. Non-certified farmers had more hectares under cotton than certified farmers. Female-managed cotton farms were approximately half the size of male-managed cotton farms. The majority of Fairtrade certified farmers was certified after 2005. Organic certification often preceded Fairtrade certification. Fairtrade-Organic certified farmers had on average four years less experience in cotton farming than non-certified farmers.

Cotton production in Senegal, Mali and Burkina Faso was non-irrigated. Most activities in cotton farming were manual, with animal traction in land preparation. Labor was predominantly family labor – complemented by assistance of community members. Fairtrade certified farmers and, in particular, Fairtrade-Organic certified farmers made more use of temporary hired labor than non-certified farmers.

Results

The results of this baseline study are presented in three themes:

- Improved farming performance
- Improved market access
- Strong and inclusive SPOs

Using Fairtrade's Theory of Change, the research team developed an impact pathway for each theme. Each pathway shows the possible relations between specific interventions of Fairtrade, outputs (immediate changes), outcomes (short-term changes) and impacts (longer-term changes). The pathways explain how Fairtrade's interventions may lead to different results in the shorter and longer term.

Improved farming performance

At the output level, certified farmers had better access to services than non-certified farmers and certified SPOs provided more services in support of farming performance than non-certified SPOs. Certified SPOs provided notably more training on more topics. They also more frequently had child right policies in place and Internal Control Systems (ICS) for pesticide use.

¹ For more information on the FSP cotton program, please see: www.fairtrade.net/fsp-cotton-mark.html

In the provision of farm inputs and finance, certified and non-certified SPOs performed almost equally. Issues existed in the provision of biopesticides. Non-certified SPOs reported more rigorous awareness programs on the use of Personal Protective Equipment (PPE). However, Fairtrade (only) farmers reported to have considerably better access to PPE via their SPO than non-certified farmers.

At outcome level, the use of chemical fertilizer and pesticides is comparable between Fairtrade (only) certified farmers and non-certified farmers. Fairtrade-Organic farmers did not use chemical inputs. Both Fairtrade-Organic and Fairtrade farmers used more organic fertilizers than non-certified farmers. Certified farmers performed slightly better on environmental practices and had better awareness levels on child rights.

Fairtrade conventional certified farmers had similar yields to non-certified farmers (approximately one tonne per hectare). Fairtrade-Organic certified farmers had a 50 percent lower yield. Quality standards are high for both certified and non-certified farmers.

Ignoring the costs of non-paid labor, Fairtrade certified farms were more cost efficient than non-certified farms. For Fairtrade-Organic farms the advantage was even bigger.

Improved market access

At output level, the baseline identified issues with market access. While Fairtrade-Organic certified producers generally could sell their production under Fairtrade conditions, the majority of the Fairtrade (only) certified producers experienced problems in selling all their Fairtrade seed cotton as certified. This was particularly the case in Mali and to a lesser extent in Senegal. The figures provided by Fairtrade show that significant certified volumes were sold as convention (e.g. Mali zero percent sold under Fairtrade conditions in 2013 and only 40 percent in 2014).

Prices for conventional cotton were below the Fairtrade Minimum Price. Farmers selling their product under Fairtrade conditions received between 8 percent and 18 percent above the conventional cotton price. Farmers selling under Fairtrade-Organic conditions received between 27 percent and 60 percent more. The Fairtrade Premium paid to SPOs was an additional 13 to 14 percent per kg or € 8.50 per certified member. Due to lack of market uptake, many farmers and SPOs did not receive these benefits.

At outcome level, the top-down organization of the sector meant that farmers had limited influence on price-negotiation. There were few direct trade relationships between producers and buyers and communication was often poor. This was mainly due to the nature of the cotton sector where all marketing is organized by monopolist cotton companies. The few SPOs with direct contact with international buyers felt they had a good capacity to negotiate.

Assuming full market uptake for certified production, the data suggests that Fairtrade (only) certified farmers were more profitable per hectare than conventional farmers in Mali and equally profitable in Senegal. Fairtrade-Organic certification would be more profitable than conventional farming in Burkina Faso, but less profitable in Senegal and Mali. However, the survey revealed that Fairtrade-Organic cotton farmers had significantly smaller cotton plots than Fairtrade (only) or non-certified farmers. As a result, cotton related net income of Fairtrade-Organic farmers was considerably lower than Fairtrade (only) or conventional farming in all three countries. Slightly more certified farmers than non-certified have experienced increased profitability in recent years. Seventy percent of both certified and non-certified farmers are satisfied with the profitability of cotton.

Strong and inclusive SPOs

At output level, certified SPOs performed slightly better in the timing and quality of their General Assemblies than non-certified SPOs. Almost all certified SPOs reported involving their members in how Fairtrade Premiums are to be used. However, less than 50 percent of the farmers felt they knew how the Premium was used or perceived any ability to influence it. Fairtrade Premiums, if received, were used for social and environmentally oriented activities mainly targeting community members. Certified SPOs received donor funding more often than non-certified SPOs, and financial credit less often. Between one-quarter and one-third of the certified SPOs had projects targeting children, youth and women.

At outcome level, approximately 80 percent of certified and non-certified farmers perceived their SPOs as working in their best interests and were able to convey their ideas and concerns to SPO management. Certified SPOs more often had a gender policy or strategy in place than non-certified SPOs. Certified SPOs had more women as members and more women in their governance model. Non-certified SPOs had more youth in their governance model. Certified SPOs were more active on the issue of climate change than non-certified SPOs. Certified SPOs more frequently showed recent positive financial results.

Approximately three-quarters of the certified farmers experienced improved cooperation in the community and improved gender equality at home since entering Fairtrade. A similar proportion of non-certified farmers perceived improved gender equality in the past three years. Both certified and non-certified SPOs felt they had limited influence on local regional and international policy.

Impacts at household level

Certified and non-certified farmers had similar profiles with respect to food insecurity and their ability to cope with shocks. For most farmers (certified and non-certified) total household income had recently increased.

The Progress out of Poverty Index (PPI) showed that certified and non-certified farmers in Senegal had comparable poverty levels, while in Burkina Faso and Mali certified farmers were poorer than non-certified farmers. Amongst both certified and non-certified farmers, women were poorer than men. Certified farmers had better access to clean drinking sources. School enrollment figures, energy sources for lighting and access to health services were comparable.

Fairtrade's Theory of Change includes indicators on dignity and voice as indicators of empowerment. Three-quarters of certified farmers were more self-confident since entering Fairtrade compared with 83 percent of non-certified farmers in the past three years.

Satisfaction with Fairtrade

Three-quarters of certified farmers were satisfied with Fairtrade. The main benefits cited were the Fairtrade Premium and improved group cohesion. Forty-one percent of non-certified farmers knew about Fairtrade and the majority were interested to join. Sixty-five percent of the certified SPOs was satisfied with Fairtrade. The main benefits cited were the Fairtrade Premium and the minimum guarantee price.

Conclusion and recommendations

Certified farmers and SPOs outperform non-certified farmers and SPOs on several dimensions (e.g. gender, child rights, anti-erosion practices, access to training, investments in social projects, and activities on climate change adaptation). On some dimensions performance was similar (e.g. water use, chemical fertilizer and pesticide use (excluding Fairtrade-Organic), SPO service provision of inputs). Fairtrade managed to reach out to poorer farmers. It was not possible to determine what impact Fairtrade had on poverty levels as the poverty level at the moment of certification was

unknown. This study was a baseline. The intended follow-up study will measure progress of Fairtrade farmers versus counterfactual farmers and Fairtrade's contribution.

This report ends with several recommendations to Fairtrade.

1. Intensify efforts to improve access to Fairtrade markets for producers. The survey showed that many producers do not have continuous access – and that this has negative effects on their motivation and on the potential impact.
2. Make a deeper analysis of the sector and market governance models and the opportunities and constraints for promoting Fairtrade values, principles and systems in the three countries. This baseline showed that sector governance influences the creation of more direct and transparent supply chain relationships. More work is needed to establish the extent of this influence and to identify strategies for promoting Fairtrade in the cotton industry.
3. Invest more in farmer support. For example, the number of farmers with adequate access to training on a variety of important topics was relatively low in all three countries. SPO service delivery to members needs to be improved. Target not only cotton cultivation, but also other agricultural activities and general skills such as financial literacy.
4. Investigate the business case for Fairtrade certification at farm, SPO and sector level in more detail. Insight into the business case can create farmer and SPO buy-in and bring cotton companies and governments on board. This does not require a large-scale survey, but rather a more in-depth analysis of costs and benefits for a small sample of farmers. In addition to the financial benefits, such a study could include the softer benefits of Fairtrade certification.
5. Develop more specific impact pathways to enable prioritization of indicators and to identify attribution of Fairtrade's interventions. Include key interests of stakeholders, including final buyers. A smarter combination of quantitative and qualitative approaches (ideally in a staggered approach) could further help to determine attribution.
6. If Fairtrade desires to continue collecting quantitative data, investments will be needed in record keeping at farm and SPO levels and in the use of alternative methods to produce figures on volumes, costs, benefits and footprints.

Introduction

Fairtrade International is an alternative approach to conventional trade and is based on a partnership between producers and consumers. Fairtrade seed cotton was first introduced in markets in 2004. At the start of this assignment there were 23 Fairtrade certified organizations with an active certificate for the production of seed cotton. West Africa is an important production region for Fairtrade cotton, with production in Senegal, Mali, Burkina Faso and Benin. The other main producing country for Fairtrade seed cotton is India.

Fairtrade seeks to understand the context of Fairtrade cotton production better in its main production areas. To this end Fairtrade is developing a monitoring framework that allows it (and its commercial partners) to monitor the impact of sourcing commitments on a range of industry relevant themes, indicators and metrics. Fairtrade has therefore commissioned two baseline studies in the cotton sector. The first study was carried out in India in 2014, and will be published towards the end of 2015. The second study (this report) was carried out in West Africa in early 2015.

The purpose of this baseline study was to provide a clear understanding of current field level practices within Fairtrade certified cotton in West Africa and to provide robust baseline data and analysis that permits future evaluation of the impact of Fairtrade's work on cotton at both organizational and farmer levels. More specifically the objectives were:

- To collect background information on (Fairtrade) cotton production in West Africa from experts and key stakeholders in the different countries, such as national cotton companies and (national) cotton researchers.
- To understand current data availability at producer organization and farm levels for the main priority indicators for Fairtrade cotton.
- To gather baseline data on these 'core indicators' from all Fairtrade certified producer organizations in West Africa and from a representative sample of households engaged in Fairtrade cotton production.
- To compare Fairtrade production with conventional cotton production in the same country or region. This required collecting (counterfactual) data for conventional cotton production. This is also important for the Sustainable Clothing Action Plan, in particular for West Africa.
- To draw conclusions and make recommendations for Fairtrade International's work in the West African cotton sector.

This baseline offers another opportunity for Fairtrade to learn from the research approach, the applicability of indicators in the cotton sector and relevance of questions tested in questionnaires. These lessons help Fairtrade further improve its monitoring, evaluation and learning efforts.

1. Methodology

This research consisted of a baseline study, not an evaluation. As a result, the research team focussed on the collection of baseline data on Fairtrade certified and non-certified producers and SPOs. Less emphasis was put on gaining in-depth understanding of why identified differences existed. We chose therefore to focus the available resources on surveys at farm and SPO level as means to collect baseline data. Fairtrade intends to conduct a follow-up impact evaluation in approximately four years' time to measure changes and to obtain a more in-depth understanding as to why these changes occurred. To make this possible, we recommend that additional data collection tools, such as focus group discussions, are combined with in-depth interviews and a survey of impact evaluation. This report, and the underlying data, provides a basis of comparison for that evaluation.

1.1 Survey design

Fairtrade International and industry partners provided us with a long-list of indicators that are part of their monitoring and evaluation frameworks. In consultation with Fairtrade we made a selection of indicators to include in this research. These indicators were translated into three types of questionnaires:

- Household survey with certified and non-certified farmers: a structured questionnaire to be answered by individual farmers. It was designed to measure living standards and well-being, farming practices and farmers' attitudes towards Fairtrade. The household survey included a section with questions from the Progress out of Poverty Index, which is a tool for measuring poverty levels.²
- Survey with Fairtrade certified and non-certified smallholder producer organizations (SPO): a structured questionnaire to be answered by the SPO management. This survey was designed to measure the institutional and organizational capacity of SPOs, their service delivery and farmers' attitudes towards Fairtrade.
- Expert data survey: figures and trends at sector level collected via expert interviews or from secondary data sources.

The surveys included questions on quantitative and qualitative data. Most qualitative questions were made quantifiable by pre-defined answering options (e.g. increased, remained stable or decreased). This enabled a straightforward comparison between certified and non-certified farmers. The surveys were tested and reviewed in Mali prior to data collection. Data collection was done by two teams of surveyors led by two external consultants who supported Aidenvironment: Ibrahima Pouye from Senegal and Lassina Konate from Burkina Faso. The final questionnaires can be found in Annex 2.

1.2 Sampling strategy

The sampling strategy was based on a two-stage sampling procedure. Its starting point was the identification of the number of certified farmers in Senegal, Burkina Faso and Mali. In total there were 21,713 certified farmers. The population was derived from a comprehensive list provided by Fairtrade International. The sampling size for the baseline study was determined based on a 7.5 percent margin of error and 95 percent confidence level to generate a sample size within the available budget. The sample size was set at 177 Fairtrade certified farmers. The distribution per country was in proportion to the number of producers based in that country.

² See <http://www.progressoutofpoverty.org>

Table 1: Sample size in the farmer survey

Country	# certified farmers in sector *	# of certified farmers in survey	% women	# of non-certified in survey	% women
Senegal	9,372	74	38%	38	32%
Mali	4,596	38	32%	18	33%
Burkina Faso	7,745	65	31%	31	10%
<i>Total</i>	<i>21,713</i>	<i>177</i>	<i>34%</i>	<i>87</i>	<i>24%</i>

* Based on figures provided by Fairtrade International with a correction for Mali after a test field visit.

In the second stage of the sample design we adopted a clustered, stratified and random sampling approach based on four filters:

- **Filter 1: selection of regions:** to reduce travel time in data collection, we selected two regions per country based upon the following criteria:
 - a) Importance of the region in the national cotton industry in terms of volume
 - b) Importance of the region in terms of number of Fairtrade certified farmers (men and women)
 - c) Presence of non-certified farmers (non-certified farmers are non-Fairtrade certified farmers)³
 - d) Presence of Fairtrade–Organic-certified farmers
 - e) Location: to reduce costs some geographical clustering took place
- **Filter 2: selection of certified SPOs:** within each region, we selected at least one Fairtrade certified producer organization, based upon the following criteria:
 - a) Number of certified farmers
 - b) Gender balance : presence of both male and female farmers was preferred
 - c) Types of certification: a diversity in Fairtrade and Fairtrade–Organic farmers was preferred
 - d) Initial year of certification: a variety in duration was preferred
 - e) Presence of non-certified farmers close to area where the SPOs were active
 - f) Location: to reduce costs some geographical clustering took place

In Burkina Faso there was only one certificate holder at national level. Instead of selecting certificate holders per region, we selected departments based upon the same criteria.

Based upon this selection, the sample size per country was sub-divided per certified SPO according to their relative size in terms of certified members. The SPOs concerned were included in the SPO survey.

- **Filter 3: Selection of villages or first degree SPOs:** within the geographical scope of the certified SPO we selected a number of communities based upon the criteria presented in filter 2. Within these communities we selected a number of first degree SPOs (when they corresponded to a village level) or villages. The number of villages or first degree SPOs depended on the sample size. The SPOs at this level were also included in the SPO survey.
- **Filter 4: Respondent selection:** On average we interviewed six farmers per village. Within the selected villages or first degree farmers we took a stratified sample of male and female farmers. The division between males and females was in proportion to their share in membership. If this share was below 30 percent, the stratified sample set them at 30 percent of the total sample size (unless there were insufficient females present). The 30 percent threshold was reached except for the non-certified farmers

³ On beforehand it was not possible to determine whether the selected non-Fairtrade certified SPOs held other certificates. It turned out they did not.

in Burkina Faso. Males and females were selected based upon the modified systematic random sampling method where we:

- calculated the sampling interval (the number of farmers in the SPO or village divided by the number of farmers needed for the sample);
- selected a random start between one and the sampling interval;
- repeatedly added sampling intervals to select subsequent households.

The non-certified farmers were selected in neighbouring non-certified SPOs at village level, following the same systematic random sampling method. These SPOs were also included in the SPO survey as counterfactual. Non-certified farmers who were members of a first degree SPO which also has certified farmers were not considered to be representative as counterfactual due to the potential spill-over effect within that organization.⁴ Note that in the West-African cotton context, all farmers are members of an SPO, consequently there were no unorganized farmers in the sample.

The cotton producers in West-Africa are generally organized in producer organizations with a clear hierarchy based upon geography; village, district, province and national level. Village level organizations are generally considered to be first degree organizations and the next level second degree, etc. The Fairtrade certificate holders can be found at different levels. For example, in Burkina Faso, the certificate holder is the national organization whereas in Senegal most are at the regional level. For the purpose of this research we have simplified classification by referring to certificate holders, regardless of their level as certificate holders. For the counterfactual, the village level associations are referred to as first degree SPOs and any level above as second degree.

Table 2 Actual sample size: SPO survey

	# of certified SPOs (certificate holder)	# of certified first degree SPOs	# of non-certified SPOs first degree / second degree
Senegal	3	9	6 / 1
Mali	4*	4	4 / 1
Burkina Faso	1	9	5 / 0
Total	8	22	15 / 2

* This includes two SPOs which were in the process of certification during the field visit, after their lower level member associations lost their certification last year.

1.3 Link with Fairtrade’s Theory of Change

The surveys included many questions derived from the Fairtrade Theory of Change (ToC). The ToC makes a distinction between interventions by Fairtrade, outputs, outcomes and impacts. These are defined as follows:⁵

- Interventions: An instrument used by Fairtrade to achieve its objectives, such as standards, policies, producer support programs, and engagement with businesses

⁴ Prior to the survey it was not possible to determine whether the selected non-Fairtrade certified farmers held other certificates. It turned out, that only six did so (see section 3.1)

⁵ Fairtrade Theory of Change, Fairtrade International, December 2013

- **Outputs:** The processes, goods and services which result directly from Fairtrade interventions, and other immediate, tangible changes resulting from Fairtrade interventions which are relevant to the achievement of outcomes
- **Outcomes:** The short- and medium-term effects of Fairtrade outputs, intended and unintended
- **Impacts:** Positive and negative, primary and secondary, long-term effects produced by Fairtrade, directly or indirectly, intended or unintended

In addition, Fairtrade has developed basic reach indicators that describe the Fairtrade system and includes indicators such as the number of Fairtrade certified producers. It has also developed product specific indicators for Fairtrade's core producers and for cotton a shortlist of relevant industry indicators.

In order to structure the presentation of the baseline results, the research team opted to present the findings according to three broadly defined impact pathways. The impact pathways connect specific interventions, outputs, outcomes and impacts around key topics. For the purpose of this baseline research, impact pathways have been developed around the following themes:

- Improved farm performance
- Improved market access
- Strong and inclusive SPOs

These impact pathways were defined by the research team. Whereas these three impact pathways helped to structure the presentation of the results, it should be recognized that many other impact pathways are possible. Fairtrade does not also specifically focus on these three impact pathways. At the time of finalizing this report, Fairtrade was engaged in a process defining impact pathways.

1.4 Limitations

This study had certain limitations which need to be taken into account when interpreting the results. Firstly, we included only a selection of the indicators of Fairtrade's Theory of Change. We chose to include indicators on a wide range of topics. Almost all themes have been included but the number of indicators per theme was reduced. We tried to include the most relevant ones, but Fairtrade may have had other outputs, outcomes and impacts which were not included in this research. The research team's choice not to include focus group discussions has limited our ability to explain the reasons for observed differences between certified and non-certified farmers.

Secondly, data reliability was an issue. During data collection, it became clear that many farmers and SPOs had no or poor record keeping practices. Consequently, the data especially for the quantitative indicators was often incomplete and needs to be treated with caution. We did not check responses with proof; nor did we include visits to the farms or conduct interviews with workers or family members to validate responses. As a result the findings do not have the same rigor as audit results.

Thirdly, due to miscommunication a part of the questionnaire intended for 1st degree SPOs in Mali was not completed. This concerned a limited number of questions. In the analysis below, we note this when applicable.

Finally, no extensive statistical analysis was conducted, but for certain the farm variables we did test significance. The chi-square (I) test was used to determine whether there was a significant difference between the expected frequencies and the observed frequencies in one or more categories. The t test was used to determine whether there was a significant difference between the means in one or more categories. The outcomes of these tests are included in some of the tables. In the text we note significant results when identified and when correlations were found.

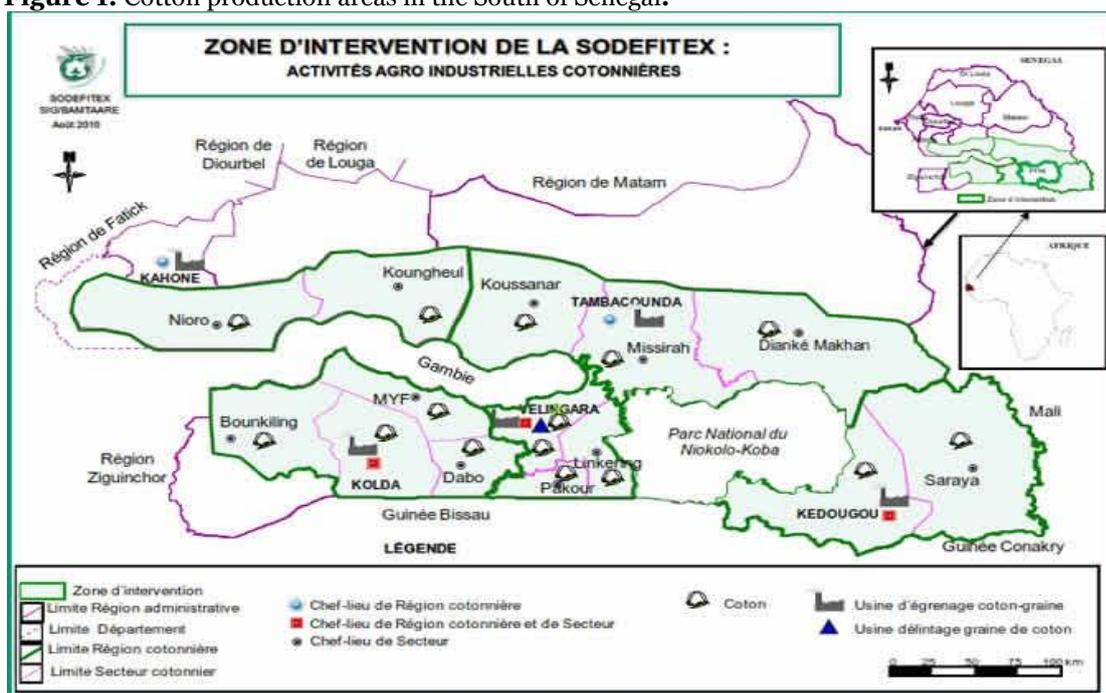
2. Description of the cotton sector

2.1 Senegal

Geography

Cotton is cultivated in the South of Senegal. Figure 1 below shows a map of the production areas. Fairtrade certified farmers were located in Kedougou, Tambacounda, Velingara and Kolda. In the south-east region of Kedougou, all cotton farmers were Fairtrade certified.

Figure 1: Cotton production areas in the South of Senegal.



Source: SODEFITEX website

Value chain

The cotton sector in Senegal had three main actors: (1) the national cotton company SODEFITEX (Société de Développement et des Fibres Textiles), (2) the national federation of cotton producers FNPC (Fédération Nationale des Producteurs de Coton) and (3) the national bank for agricultural credit CNCAS (Caisse Nationale de Crédit Agricole).

SODEFITEX is a company established in 1974 by the government. Since 2003, it is a private company. Its shareholders are Geocoton (51 percent), which is the former French state company CFDT, the State of Senegal (46.5 percent), CBAO Attijari Bank (1.25 percent) and CNCAS (1.25 percent). The company oversees all cotton production and is the single buyer, processor and exporter of cotton in the country. SODEFITEX provides producers with inputs, credit, extension services, technical assistance, some rural infrastructure and other support programs. They buy the cotton from producers, process it in their cotton gins and are responsible for marketing of the cotton and by-products. The FNPC groups all cotton producers of Senegal: approximately 35,000. It consists of sectors at department level (US-GPC) which in turn consist of product groups at village level (GPC). Via this structure it identifies the demand for inputs and credit of each cotton farmer. The CNCAS finances the agricultural credit.

Prices of fertilizers and seed cotton are set at national level and negotiated between SODEFITEX with FNPC.

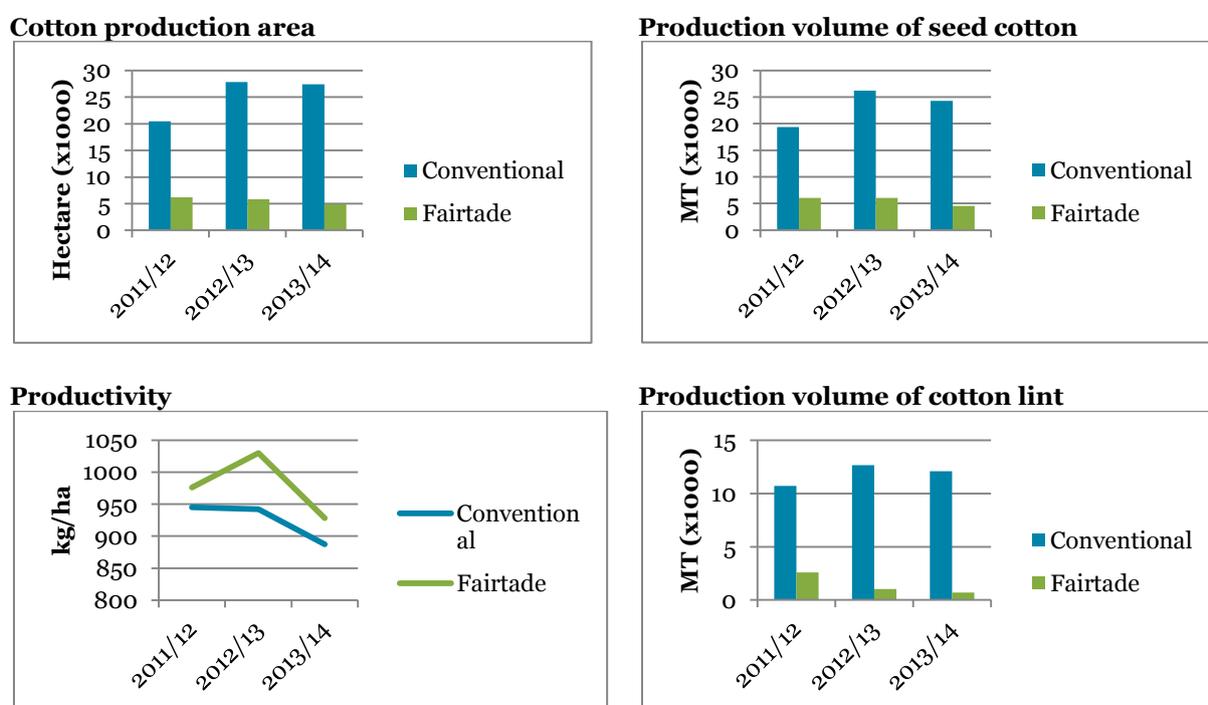
Dominant farming system

The dominant farming system in Senegal is semi-mechanized with the use of animal traction in land preparation. Harvesting is done manually or with a seeder. Family labor is dominant, although there is some seasonal paid labor. There is no irrigation in cotton production. There is no genetically modified cotton (GMO) cotton in Senegal.

Volumes

Cotton production in Senegal has reduced dramatically since 2007 (when it was 52,000 MT) due to a combination of poor practices, rising costs and institutional difficulties.⁶ However, as our data showed, production recovered slightly in the last three seasons (from 20,000 to 27,000 MT). In contrast, the total hectares of Fairtrade certified area and volumes decreased in the same period (Fairtrade figures show an opposite trend - see below). Based upon these figures, Fairtrade's share in the Senegal production volume decreased from 24 percent in 2011/12 to 16 percent in 2013/14. Overall yields declined with Fairtrade yields consistently higher than conventional ones.

Figure 2: Overview of Senegal Cotton production.



Source: information provided by SODEFITEX, April 2015

Fairtrade

In 2005, the first three producer organizations in Kédougou were certified in Senegal. At the time of the field work, there were seven certified SPOs of which six were second degree SPOs and one was a first degree.

Table 3: Overview of POs in Senegal

Region	Number of certificate holders	Certified members (2014)	Of which female	First certification
Tambacounda, Velingara, Kolda, Kedougou	7	9,372	1,882	2005 - 2008

Source: data provided by Fairtrade International, January 2015

⁶ <http://bettercotton.org/about-better-cotton/regions/senegal/>

In contrast to the data provided by SODEFITEX, the data provided by Fairtrade International showed a strong increase in production area and volumes. It is not clear to the research team why there is such a difference between the figures of Fairtrade and SODEFITEX.

Table 4: Production and marketing figures for Fairtrade

	2011/12	2012/13	2013/14
Area (ha)	6,417	8,781	16,378
Production volume (MT)	4,806	9,363	11,110
Volume sold as Fairtrade (MT)	1,057	3,187	4,040
Value of Fairtrade sales (euro)	1,057,648	1,304,018	1,558,365
Premium received (euro)	50,980	19,284	20,878

Source: data provided by Fairtrade International⁷, January 2015

According to SODEFITEX, there is no Organic (only) certified cotton production in Senegal though there is some Fairtrade–Organic certified production. In 2014, BCI was launched in the Kolda region of which we did not have production figures.

2.2 Mali

In Mali cotton is produced in the Southern provinces. The sector is divided in four zones. In 2012/13 the South and North–East regions were the most important zones, followed by the Central region.

Geography

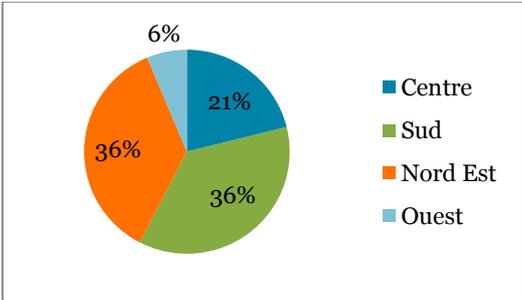
Figure 3: Cotton production in Mali

Cotton production area Mali



Source: Nelson, V. and Smith, S. (2011)⁸

Share in production per zone (2013/14)



Source: CMDT, UN-SCPC, OHVN (2012)⁹

Value chain

Malian cotton production is coordinated by a national cotton company, Compagnie Malienne pour le Développement des Textiles (CMDT). It has a monopoly on seed collection, ginning and commercialization of cotton fiber. It is owned by the Malian state (78 percent), the national union of cotton producers UN-SCPC (20 percent) and Geocoton (2 percent). CMDT provides all farmers with inputs of credit and technical

⁷ The Fairtrade data analyst clarified that the amount of Premium income for season 2011/2012 includes Premiums received applicable to previous seasons for three SPOs

⁸ Nelson, V. and Smith, S. (2011), Fairtrade cotton: Assessing impact in Mali, Senegal, Cameroon and India. Synthesis report. University of Greenwich & Institute of Development Studies

⁹ CMDT, UN-SCPC, OHVN (2012), Programme de développement stratégique de la filière coton de 2013 à 2018

assistance. The distribution of inputs, the reimbursement of credits and primary collection of cotton is done via producer cooperatives.¹⁰ There are about 7,000 cooperatives at village level, which are grouped into 288 unions at community level, which are in turn grouped into 41 unions at department level, and into four unions or one union per zone. These together form the national union of the cooperatives of cotton producers UN-SCPC.¹¹

CMDT and UN-SCPC together form the *interprofession* or sector organization Interprofession du coton du Mali (IPC) at which level producer prices are determined for cotton and inputs. The government, main owner of CMDT, has an important influence on CMDT’s strategy and also provides subsidies on fertilizers. For several years, the Malian government has planned to privatize CMDT and liberalize the cotton sector but so far it is unknown when this will happen. Other relevant actors are the financial sector in which several national and international banks financially support the input program and Institut d’Economie Rurale (IER), the national agricultural research institute mostly working on cotton.

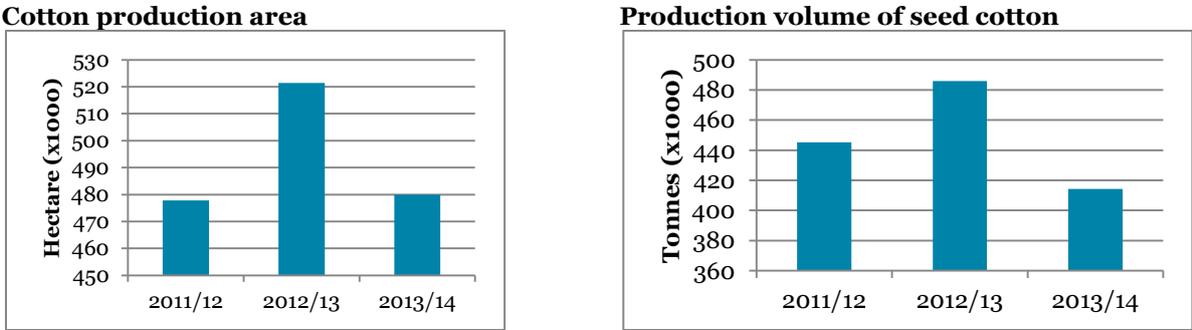
Dominant farming system

The dominant farming system in Mali is manual with the use of animal traction in land preparation. Harvesting is done manually. Family labor is dominant, although there is some seasonal paid labor. There is no irrigation in cotton production. There is no GMO cotton in Mali (it is currently illegal, but there are voices calling for reconsideration).

Volumes

After a collapse in production in the middle of the last decade, Malian production is increasing in recent years. Whereas in 2008/09 Mali produced 200,000 MT of seed cotton, in 2013/14 it produced 480,000 MT and it aims to produce 800,000 MT in 2018. Almost all the crop is exported, with China being the main destination.

Figure 4: Cotton production in Mali.



Source: data provided by CMDT, March 2015

We did not obtain any official figures on Fairtrade production from CMDT. The figures from Fairtrade International demonstrate that Fairtrade represented one percent of the national production.

Fairtrade

Until last year there were five certified SPOs. Mobiom was the first to become certified; all their farmers are Fairtrade and Organic certified. In 2005 and 2006 three Union Communales from the Kita area were certified and another in 2012. In 2014, these Unions were decertified. They are currently in a process of recertification – but under one certificate managed at sector level. Fairtrade volumes from Mali were unclear. The figures we obtained from some of the SPOs we visited differed from the figures available at

¹⁰ Aidenvironment, IIED, NewForesight (2015), Sector transformation: a case study from Mali, commissioned by IFC
¹¹ IPC (n.d.), L’évolution des Organisations de Producteurs de la filière coton

Fairtrade International. It was a challenge to obtain reliable data from the two Union Communales we visited in the Kita region, and the data we collected were not in line with Fairtrade’s figures. As a result of these differences, we were unable to provide a reliable overview of the production area, volumes, sales and Premium for Fairtrade cotton in Mali. There is therefore room for improvement of data management at the SPO level. If Fairtrade wants to continue to collect such data on a large scale, then more record-keeping support is needed at SPO and farm levels. Fairtrade could also consider alternative data collection methods for such kind of data.

2.3 Burkina Faso

Geography

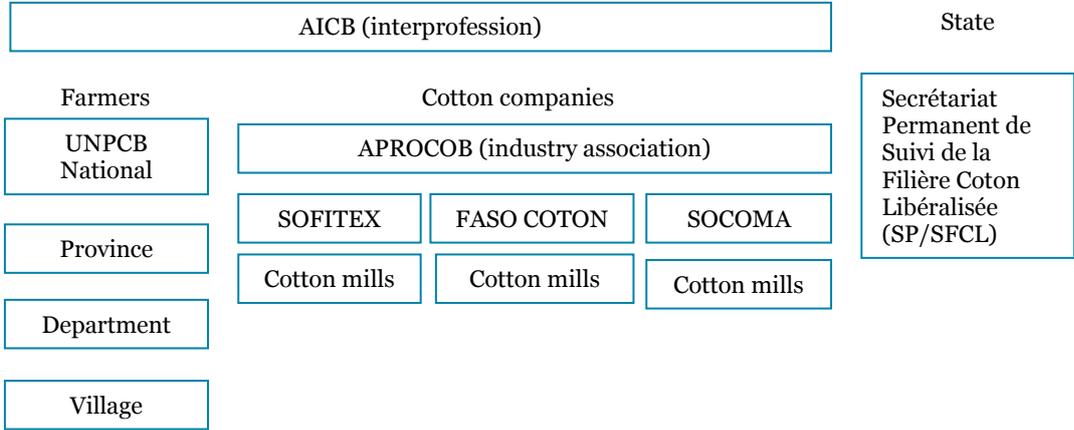
In Burkina Faso, cotton is primarily cultivated in the western part of the country, but the production zone is progressively expanding to various zones in the South and East. The cotton sector is divided into three zones:

- Zone SOFITEX (west): consisting of 6 regions and 20 provinces
- Zone FASO COTON (centre): consisting of 5 regions and 11 provinces
- Zone SOCOMA: consisting of 2 regions and 6 provinces

Value chain

The cotton sector in Burkina Faso has two main actors; cotton companies and producers. Ownership differs per company. Ownership of SOFITEX is more or less equally distributed between the government, Geocoton and the cotton farmers (via UNPCB). The majority of shares (51 percent) of SOCOMA are owned by Geocoton, 20 percent is for UNPCB, and the remainder is divided to three different companies. UNPCB has 10 percent of the capital of FASO COTON, and the remainder 90 percent is owned by 4 different companies, including a fertilizer supplier.

Figure 5: Key Actors in the cotton sector in Burkina Faso



The three cotton companies each have a designated sourcing zone and are responsible for the procurement of inputs, technical assistance to producers, the procurement of seed cotton, transformation and commercialization of the cotton and by-products. The three cotton companies are grouped into an industry association: Association Professionnelle des Sociétés Cotonnières (APROCOB). All producers are organized at national level in the Union Nationale des Producteurs de Coton du Burkina Faso (UNPCB), which has been created in 1998. This consists of unions at provincial level (UPPC), department level (UDPC) and village level (GPC). The General Assembly of UNPCB consists of three members per provincial union. The roles of the producer organizations include the distribution of inputs, short and mid-term credit management, the collection of cotton and social activities.

At national level, the cotton companies and UNPCB form the sector organization with the mandate to govern the sector (Association Interprofessionnelle du Coton du Burkina Faso - AICB). This platform determines the cotton producer cotton prices and prices of inputs and allocates research budgets.

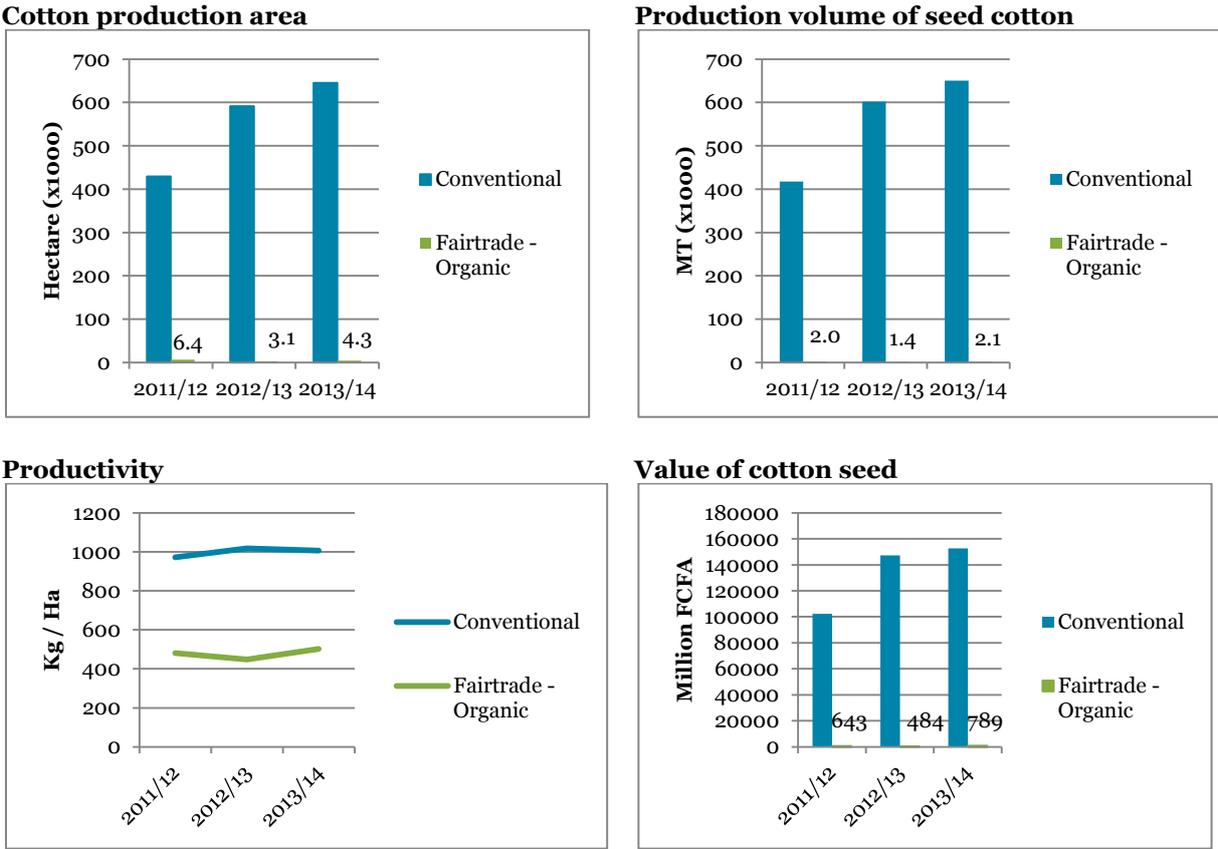
Other actors are the government, which determines legislation and fiscal policies, defines the agricultural policies, controls and monitors the sector and invests in infrastructure. INERA, the national research institute works on improving seed varieties, agronomic practices and production systems. Financing of the credit model is done by a pool of foreign and national banks which may also finance investments in the cotton companies.

Burkina Faso has some textile industry, all non-certified and serving domestic markets.

Dominant farming system

The dominant farming system in Burkina Faso is manual farming with the use of animal traction in land preparation. Harvesting is done manually. Family labor is dominant, although there is some seasonal paid labor. There is no irrigation in cotton production. In Burkina Faso, 80 percent of the cotton is GMO, which was introduced by Monsanto in 2009. It is the only country in West Africa which has more than 50 percent GMO cotton. All Fairtrade cotton in Burkina Faso is also Organic certified.

Figure 6: Cotton production figures Burkina Faso.



Source: data provided by UNPCB, March 2015

Volumes

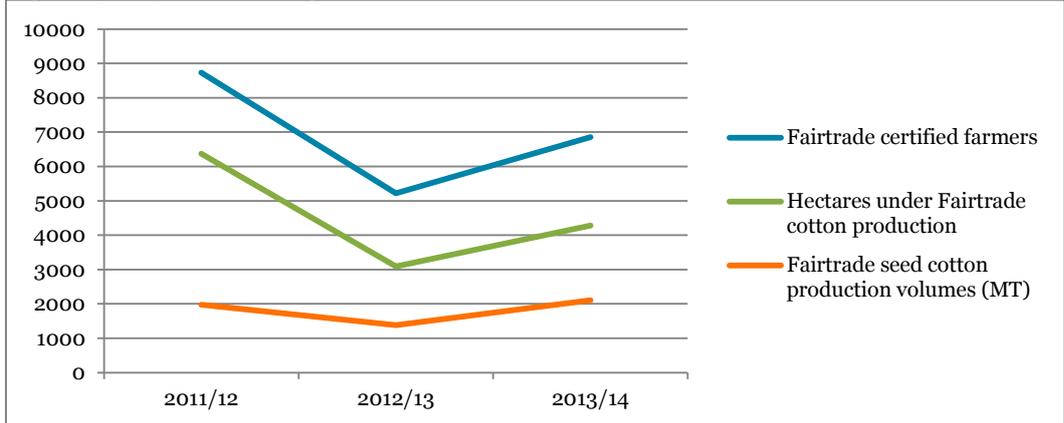
The figures below show that cotton production in Burkina Faso increased by 55 percent in the last three seasons. As yields increased only slightly, this increase was accomplished by expanding the production area

by 50 percent. There were about 350.000 producers in 2013/14, with an average cotton field of 1.8 ha. Fairtrade producers in Burkina Faso are also Organic certified. According to UNPCB, they represented 0.7 percent of the total production area and 0.3 percent of the total production volume in 2013/14.

Fairtrade

Fairtrade-Organic cotton is produced in specific locations across the cotton zone. UNPCB is the certificate holder. The first certification took place in 2005. Contrary to conventional cotton, the number of producers, production area and production volume declined in the recent years. Interestingly, the proportion of female members of certified SPOs increased between 2012 and 2014 from 29 percent to 39 percent.

Figure 7: Key Fairtrade Figures in Burkina Faso



Source: data obtained by UNPCB, March 2015

3. Baseline findings

3.1 Profile of farmers

3.1.1 Demographics

Conclusion: *The socio-economic profiles of certified and non-certified farmers were similar.*

Table 5 provides an overview of the types of farmers included in the survey. The average farmer was in his or her early forties and likely to be married. Literacy and education levels were low. More than half of the farmers could not read and/or write and had not received education. Female farmers (74 percent) were more likely to have no education compared to male farmers (48 percent). Literacy and education levels were lowest in Burkina Faso: on average 78 percent of farmers could not read and/or write followed by Senegal (50 percent). Literacy and education levels were higher in Mali. On average 65 percent of farmers were able to read and write in at least one language and 67 percent had received education, even if informal. The average household consisted of seven adults, eight children and one person living outside the household dependent on the household income. Farmers in Mali were likely to have more children, adults and dependents. On average 22 people lived in a household compared to 17 people in Senegal and 12 people in Burkina Faso.

Table 5: Profile of sampled farmers

Aspect		Certified	Non-certified
Gender	Male	119	60
	Female	60	21
Age	Years	44	41
Marital status	Married	94%	97%
	Single	2%	3%
	Widow(er)	4%	-
Read and write ***	No	60%	56%
	French	7%	8%
	Another language	28%	26%
	French and another language	5%	9%
Education level ***	No education	58%	55%
	Some informal education	28%	30%
	Some primary	8%	7%
	Completed primary	5%	8%
	Some secondary	1%	-
Adults in household	Average	7	7
Children (<18) in households	Average	8.3	7.9
Dependents on household income	Average	0.9	0.8

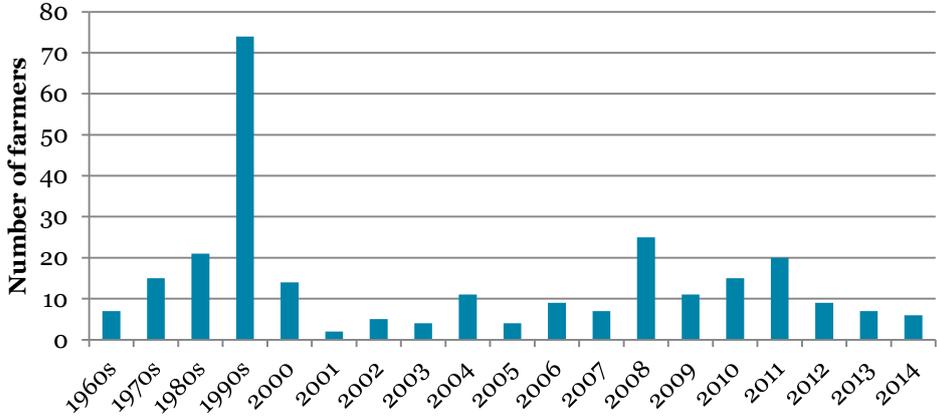
* not significant $p > 0.1$, ** marginally significant $p < 0.1$, *** significant $p < 0.05$

3.1.2 Cotton farming experience

Conclusion: *Fairtrade-Organic farmers had on average 4 years less experience in cotton cultivation than Fairtrade or non-certified farmers.*

Figure 8 shows the dates when farmers started cultivating cotton. On average, 44 percent of the farmers started cultivating cotton before the year 2000, with a large number starting in the 90s. Non-certified and Fairtrade (only) certified farmers have on average four years more experience than Fairtrade-Organic farmers.

Figure 8: Year that farmers started to cultivate cotton



3.1.3 Land holding

Conclusion: Non-certified farmers had more hectares under cotton cultivation than certified farmers. On average 21 percent of the total farm land was cultivated with cotton. Woman-owned cotton farms are about half the size of man-owned cotton farms.

The average area of cotton cultivation for a farmer was 1.6 ha, with a minimum area of 0.25 ha and the largest area being 20 ha among those interviewed. The share of cotton fields in the total farm size was 21 percent. The share of the cotton field in the total of cultivated area was 33 percent. The average area of cotton cultivation for non-certified farmers was higher than for certified ones; 2.3 ha compared to 1.7 for Fairtrade (only) farmers and 0.9 for Fairtrade-Organic farmers. The proportion of the cotton area in the total farm was also higher for non-certified farmers. Women had smaller farms than men and their cotton plots were approximately half the size of those of men.

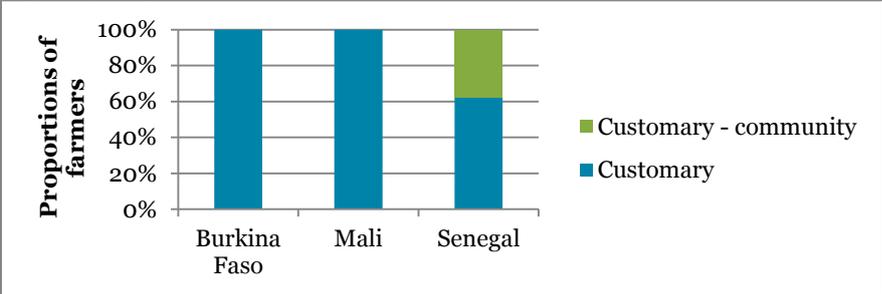
Table 6: Farm sizes

Type of farmer	Total farm size (ha)	Land under cultivation (ha)	Cotton cultivation area (ha)	Share of cotton field in total land under cultivation
Fairtrade	8.8	4.6	1.7	23%
Fairtrade - Organic	10.7	6.8	0.9	13%
Non-certified	10.4	7.2	2.4	28%
Male	11.4	7.4	1.9	21%
Female	7.0	3.9	0.9	20%
Total	10.1	6.3	1.6	21%

Only one farmer had a formal title of land ownership. All other farmers had customary user rights on land formally owned by the state (see Figure 9). These user rights may exist for generations within a family but they do not provide guarantee of ownership. In Senegal, approximately one-third of the farmers had

customary land rights on what is classified as community land, which provide slightly more security than customary land on other state owned land.

Figure 9: Types of land tenure



3.1.4 Certification status

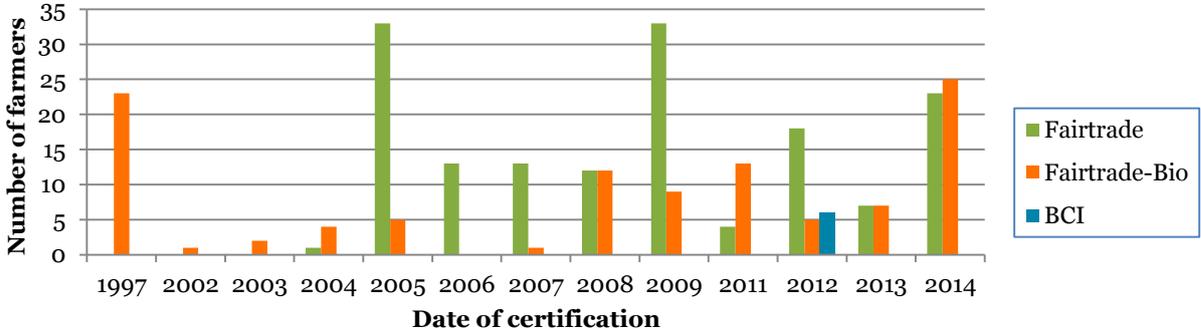
Conclusion: Certified farmers had been Fairtrade certified for eight years on average.

Table 7 below shows the type of certifications by farmers; 177 farmers were Fairtrade certified. There were 104 farmers with both Fairtrade and Organic certification. Seven Fairtrade certified farmers had been decertified last year, but were in the process of recertification. We included them in the group of certified farmers. There were 6 farmers in Mali who were part of the Better Cotton Initiative (BCI). They were classified as non-certified farmers. Of the Fairtrade certified farmers, 60 percent could mention the year when they were first certified and of the Organic certified farmers 78 percent could mention this (see Table 8). Figure 10 shows the dates of first certification. Fairtrade certificates were issued as of 2004 while Organic certification started earlier, namely in 1997. There was a spike in the number of Fairtrade certificates issued in 2005 and 2009. All BCI farmers were included in the BCI program in 2012.

Table 7: Certification status of farmers

Type of certification / verification	Number of farmers
Fairtrade (only)	73
Fairtrade - Organic	104
Better Cotton Initiative (BCI)	6
None	81

Figure 10: Dates of first certification / verification



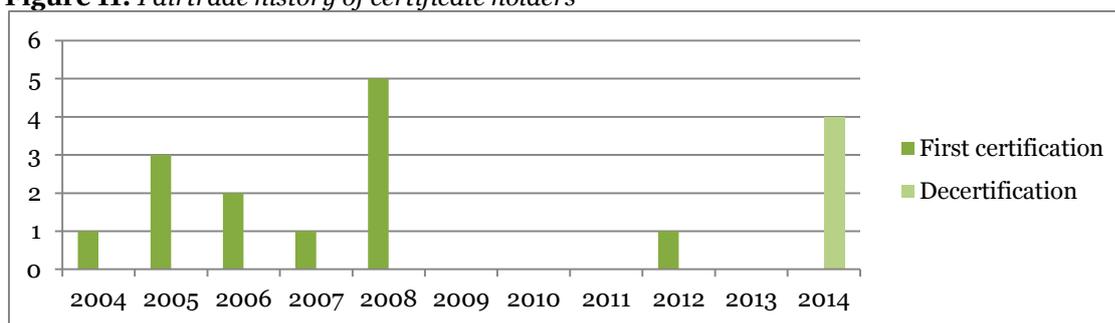
3.2 Profile of producer groups

Conclusion: Most certified SPOs in the survey had been certified for more than 5 years – 4 were decertified last year and were in the process of recertification. The size and geographical scale of certificate holders differed widely. There was a decrease in the number of members producing certified cotton.

The SPO survey included organizations of different types. It included for example village level farmer groups as well as the national producer association of Burkina Faso, which groups all producers in the country. Some SPOs had only certified members, others had both certified and non-certified members. For most producer groups the primary activity is to support their members in cultivation, to distribute inputs and to collect the cotton for the cotton company. Of all SPOs, one certificate holder in Mali and one in Senegal were involved in some transformation activities with cotton.

In Senegal, Mali and Burkina Faso there were in total 13 different certificate holders (of which seven were included in this survey). At the time of the field visit, four of them (decertified in 2014) were in the process in recertification under one umbrella organization (which was also included in this survey). Most SPOs have been certified for eight years or longer. Note that some certificate holders have increased the number of certified farmers over the years, which could explain the differences with the data obtained by the farmers in the previous section.

Figure 11: Fairtrade history of certificate holders



The membership of certificate holders varied between 1,250 for a group in Senegal to 350,000 for the national producer organization in Burkina Faso – of which approximately 25 percent are women. Some groups included members that produce other crops than cotton and others had members growing only cotton. All but one certificate holder had member producer organizations. The variation in terms of membership and activity and product scope within first degree organizations was much lower. Table 8 shows that certified first degree SPOs were on average larger and had relatively more women in their membership than non-certified SPOs. Usually all their members also grow cotton and they are either certified or not certified.

Table 8: Membership of first degree organizations

First degree organization	Average membership	% women
Certified	51	29%
Non-certified	44	18%

Almost 40% of the certified first degree SPOs experienced a decrease in memberships (see Figure 12 - Mali data has not been collected – see section 1.4). In Senegal this percentage was the highest (56 percent) while in Burkina Faso, two-thirds experienced growth. Among non-certified farmers, 10 percent experienced a decrease in membership. The certificate holders in the three countries also experienced a decline in cotton growing members. There has been a sharp decline in the number of certified members, while the number of

non-certified farmers increased slightly (See Figure 13). In other words, there is an issue in the West African cotton sector to convince farmers to continue to produce certified cotton. Possibly this is related to issues in market uptake (see chapter 5), but further research could analyze what drives farmers and SPOs to start or end certification. Figure 13 excludes non-certified farmers of the certificate holder in Burkina Faso, as their numbers are too large (approximately 350,000) and would distort the figure. However, the number of conventional cotton farmers increased in Burkina Faso in the last three years.

Figure 12: Percentage of first degree organizations with increasing, stable or decreasing membership in past three years (excluding Mali)

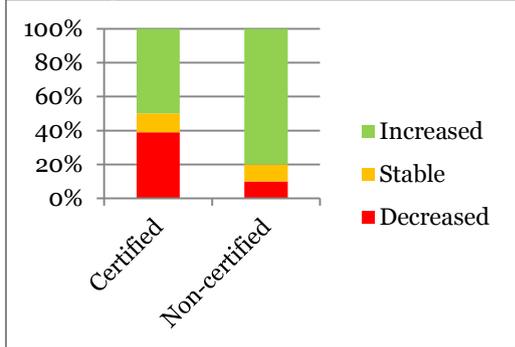
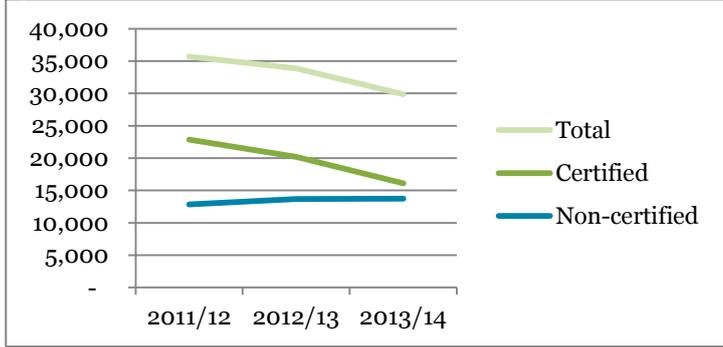


Figure 13: Average certified and non-certified membership development of Fairtrade certificate holders (for Burkina Faso not-certified members were not included in these figures)



4. Improved farming performance

Fairtrade promotes improved farm performance as a way to develop sustainable livelihoods. Figure 14 shows some of Fairtrade’s interventions, outputs, outcomes and impacts that are part of Fairtrade’s ToC and form a possible impact pathway on this theme. The questionnaires included various indicators at different levels. This section presents the results of these questionnaires structured by topic.

Figure 14: Fairtrade’s Theory of Change: Improved farming performance

Intervention	Output	Outcomes	Impacts
<ul style="list-style-type: none"> • Fairtrade standard • Fairtrade Minimum Price • Fairtrade Premium • Producer support services 	<ul style="list-style-type: none"> • Enhanced benefits for small producers • Enhanced knowledge and capacity of smallholders 	<ul style="list-style-type: none"> • Improved farming performance • Protection of environment and adaptation to climate change • Enhanced benefits for small producers 	<ul style="list-style-type: none"> • Improved household income, assets and standards of living • Less vulnerability, increased food security

The most relevant Fairtrade interventions to improve farming performance are (1) the Fairtrade Standard, (2) Fairtrade Minimum Price and Fairtrade Premium and (3) Producer Support Services. Certified farmers comply with Fairtrade production standards and they are supposed to receive at least Fairtrade Minimum Prices for their production sold as Fairtrade. Their SPO is supposed to receive a Fairtrade Premium for the volumes sold under the label which may be reinvested in activities to improve farming performance. In addition, the SPO may benefit from producer support services provided by Fairtrade, which may indirectly or directly benefit farm members.

Whether or not farmers and SPOs received Fairtrade Minimum Prices and a Fairtrade Premium will be discussed in chapter 5. Of the certificate holders, one-third reported having received Producer Support Services from Fairtrade directly targeting producers in the past year. Of the first degree member organizations, only one out of twenty reported to have received such services directly from Fairtrade.

4.1 Outputs

Relevant themes from Fairtrade’s Theory of Change for this section are:

- Improved services and support for SPO members;
- Capacity among small producers to improve productivity and quality, protect health and environment, and adapt to climate change;
- Management and technical capacity in SPOs;
- Awareness of human rights (labor, gender, child)
- Understanding of Fairtrade principles and practices.

The following sections will cover indicators from each of the above themes. To improve the flow, some of the themes are combined while others are split into sub-themes.

4.1.1 Improved services and support for SPO members – technical assistance and training

Conclusions: *Certified farmers – in particular, women – had better access to training than non-certified farmers. Certified SPOs are more active in providing training to members and cover more topics than non-certified SPOs. However, 40 percent of the certified farmers reported to have received no training from their SPO in 2014.*

The farmer surveys showed that certified farmers received more training in 2014 from their SPOs than non-certified farmers (60 percent vs. 29 percent). This difference was significant. In particular, certified female farmers had considerably better access to training provided by their SPO. This difference was not significant (see Figure 15). Nonetheless, not every certified SPO was able to organize training during the last season and 40 percent of the certified farmers did not receive any. Satisfaction levels for the training were comparable across certified and non-certified farmers (See Figure 16).

Figure 15: Farmers receiving training from their SPO in 2014

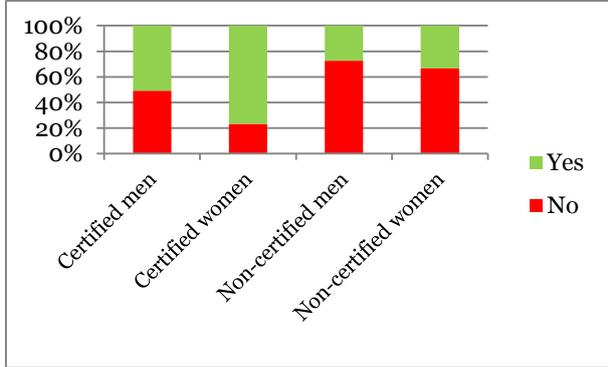


Figure 16: Member satisfaction on SPO training

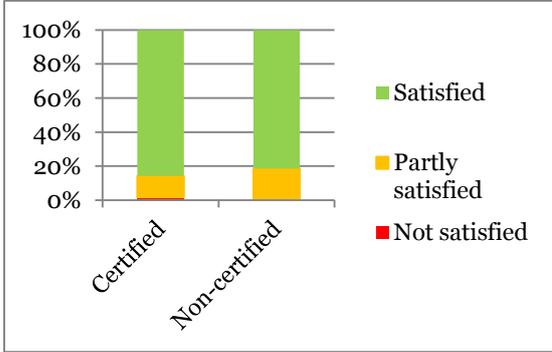


Figure 17: Training topics provided by SPOs to farmers in 2014 (results from farmer survey)

Training topic	Certified	Non-certified
Preparation of the land	30%	7%
Planting	26%	3%
Weed management	26%	6%
Pest and disease management	28%	7%
Soil management (fertility, erosion)	35%	6%
Water management	24%	5%
Harvesting	35%	5%
Post-harvest handling/Transportation	30%	5%
Organic farming practices	35%	5%
Integrated pest management	3%	7%
Sustainable waste management (e.g. composting)	6%	6%
Occupational health, safety and environment	3%	2%
Cooperative principles	3%	2%
Literacy	6%	6%
Child labor and child protection	12%	
Safe storage and handling of pesticides and other hazardous chemicals	10%	6%

According to the farmer surveys, training was mostly in agricultural and post-harvest practices (See Figure 17). Social themes such as child labor or handling of pesticides were less frequently trained on. It should be noted that the survey covered only training received in 2014. It is possible that training in other topics was provided in earlier years.

Few SPOs had the capacity to provide agronomic related services to farmers: three certificate holders employed qualified agronomists (see Figure 18 – ranging from four agronomists for an organization at district level to 50 for a national organization). All other certified and non-certified SPOs occasionally hire agronomists, except for one certified first degree SPO that had never made use of agronomists. Almost all SPOs made use of lead farmers who provided advice to fellow-members. First degree organizations had on average three lead farmers.

In the SPO survey, there was little difference in providing access to technical assistance and training of certified SPOs and non-certified SPOs through external partners (78 percent for certified and 73 percent for non-certified - see Figure 19). Most popular sources were the umbrella organizations, the cotton company and NGOs (see Figure 20).

Figure 18: Use of agronomists within SPOs

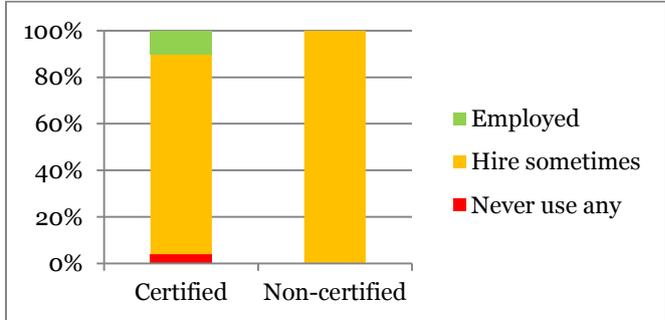


Figure 19: First degree SPO member access to technical assistance last season via partners

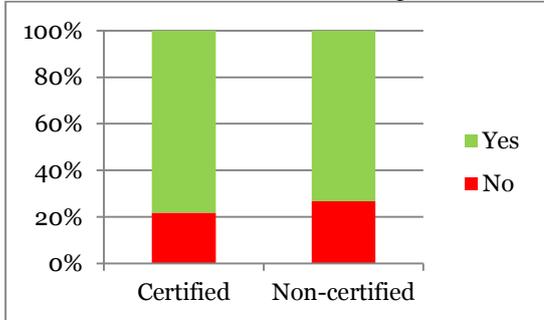
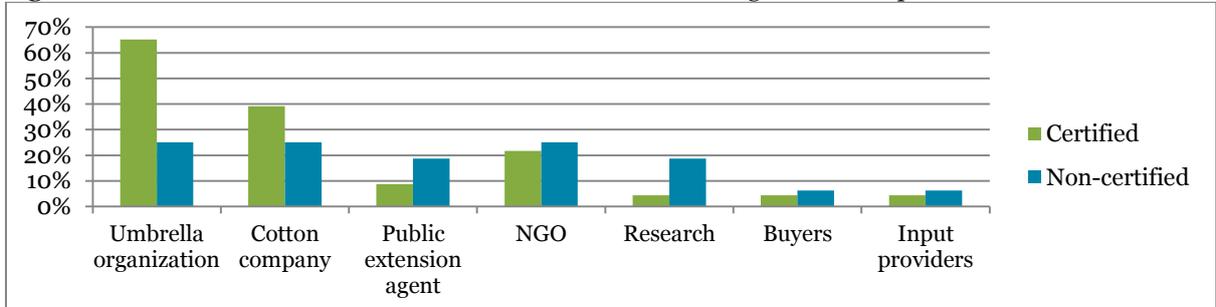


Figure 20: External sources of technical assistance to farmers (regardless of topic)



In the SPO surveys, certified SPOs more frequently reported that their members had access to training than non-certified SPOs. For certified SPOs the percentages were 55 percent for first degree and 88 percent for certificate holders and for non-certified SPOs the percentages were approximately 50 percent of both first and second degree SPOs (see Figure 21). In 58 percent of the certified SPOs and in 74 percent of the non-certified SPOs it was the SPO itself who provided the training. In the other cases this was done via partners.

Figure 21: Share of SPOs indicating their members had access to training in the 2013/14 season

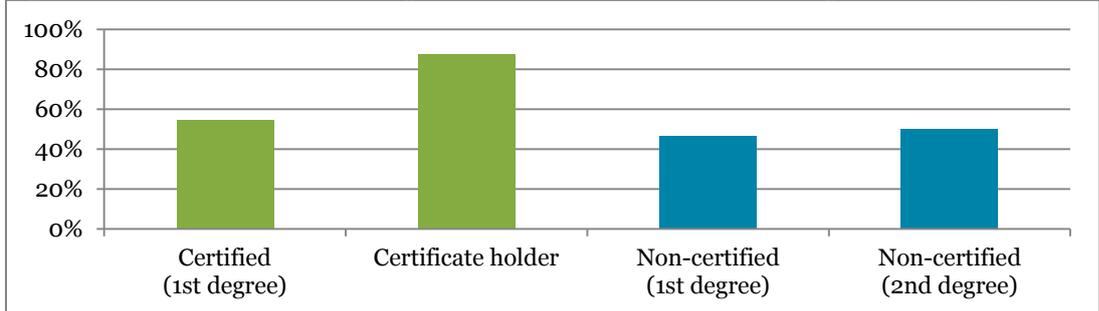


Table 9 shows the number of beneficiaries per type of SPO from the SPO survey. Note that these are not unique beneficiaries as some farmers may have received multiple training. It shows that certified SPOs have a relatively higher proportion of female beneficiaries than non-certified SPOs.

Table 9: Number of beneficiaries per training the 2013/2014 season

	Average number of (male and female) beneficiaries	Share of women
Certified (1 st degree)	198	60%
Certified (certificate holder)	18,912	43%
Non-certified (1 st degree)	389	26%
Non-certified (2 nd degree)	20	0%

The many training topics are presented in Table 10. The variety in training topics was larger amongst certified SPOs compared to non-certified ones. Certified SPOs were more active on social topics such as child labor, gender and labor rights, as well as some environmental aspects such as biodiversity and pollutants. These figures are not fully aligned with the results from the farmer survey. For example, a relatively higher proportion of the farmers reported to have received training on agronomic practices and a lower proportion said they had received training on social issues.

Table 10: Percentage of SPOs providing training per topic in 2013/14 season (own employees or via partners)

Training topic	Certified (1 st degree)	Certificate holder	Non-certified (1 st degree)	Non-certified (2 degree)
Preparation of the land	23%	13%	33%	50%
Planting	5%	-	-	-
Weed management		13%	-	-
Pest and disease management	9%	13%	7%	-
Soil management (fertility, erosion)	5%	-	7%	-
Fertilizer use	5%	25%	-	-
Harvesting	-	25%	13%	-
Post-harvest handling/ Transportation	14%	-	7%	50%
Organic farming practices	27%	25%	13%	50%
Integrated pest management	-	13%	-	50%
Farm management	-	-	7%	50%
Sustainable waste management (e.g. composting)	-	-	7%	-
Environmental pollutants	-	38%	-	-
Biodiversity	5%		7%	-
Occupational health, safety and environment	5%	13%	7%	-
Personal Protective Equipment use	-	38%	-	50%
Cooperative principles	-	-	13%	-
Literacy	5%	25%	7%	-
Child labor and child protection	23%	25%	-	-
Gender	5%	25%	-	-
Cooperative principles	-	-	13%	-
Income diversification	-	13%	7%	-
Hired labor rights	-	25%	-	-
Fairtrade principles	-	13%	-	-

4.1.2 Improved services and support for SPO members – access to inputs and finance

Conclusions: Certified farmers had comparable access to chemical fertilizers and pesticides as non-certified farmers, but issues existed in accessing biopesticides and organic fertilizers. Most service provision by SPOs was average and comparable between certified and non-certified farmers. Fairtrade (only) certified farmers received more often PPE from their SPO than non-certified farmers.

All farmers received planting material from the cotton company. Cotton companies also provided fertilizers via SPOs to the farmers. The degree of success is varied as Table 11 shows. Certified farmers had slightly better access to chemical fertilizers and pesticides than non-certified farmers, but the differences were not significant. Almost all certified farmers had access to fertilizer, but some complained about the high costs involved. Organic fertilizers and biopesticides were generally not delivered through cotton company structures. The majority of the certified farmers (52 percent) had difficulties in accessing organic fertilizers, while 30 percent of the Fairtrade-Organic farmers experienced difficulties in accessing biopesticides. The lack of availability was the most prominent reason, while some also referred to the lack of raw materials to produce them or the time it takes to produce organic inputs.

Table 11: Access to fertilizers and inputs in 2014

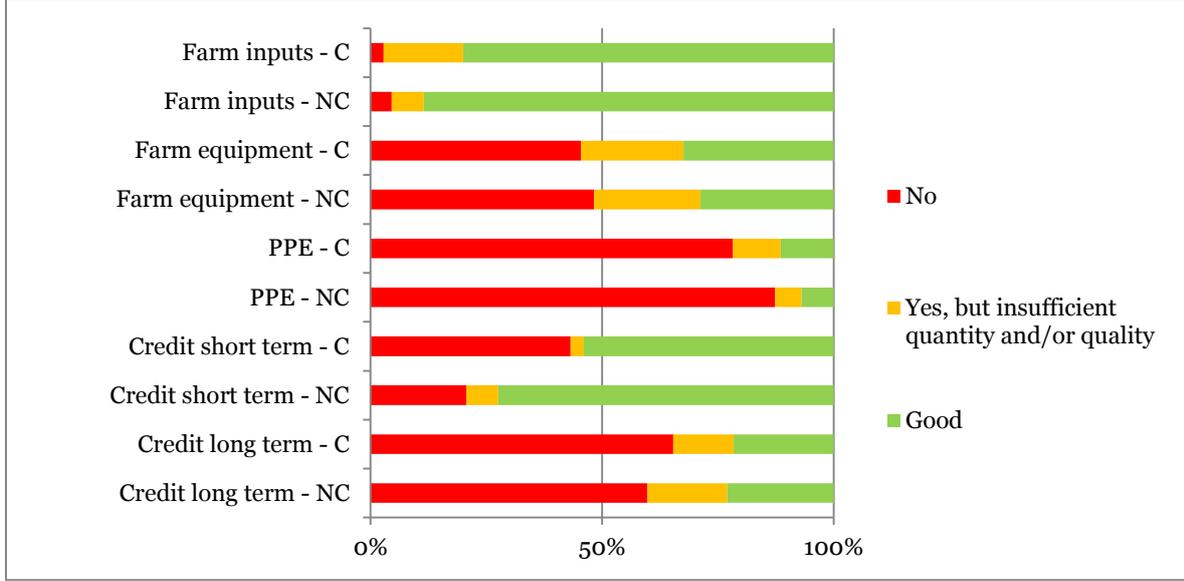
Access to inputs	Certified	Non-certified
Access to chemical fertilizers*		
• Limited due to unavailability	0%	2%
• Limited because of high costs	6%	14%
• Good	94%	84%
Access to organic fertilizers		
• Limited due to unavailability	39%	
• Limited because of insufficient raw material or time	14%	
• Good	48%	
Access to chemical pesticides*		
• Limited due to unavailability	1%	7%
• Limited because of high costs	8%	15%
• Good	90%	78%
Access to biopesticides		
• Limited due to unavailability	24%	
• Limited because of insufficient raw material or time	4%	
• Limited because of high costs	2%	
• Good	70%	

*not significant $p > 0.1$, ** marginally significant $p < 0.1$, *** significant $p < 0.05$

Farmers also indicated to what extent their SPO provided them with inputs (see Figure 22). Non-certified farmers responded slightly more positively than certified ones. However, this was due to the fact that a relatively high proportion of Fairtrade-Organic farmers responded that their SPO provided inputs but not at the right quantity or quality. This is in line with the conclusion above that there were issues with access to bio or organic inputs. These inputs were also not provided by the national cotton companies.

Farmer access to other SPO services such as farm equipment and agricultural credit was comparable across certified and non-certified farmers (See Figure 22). An exception is access to short-term credit, where non-certified farmers had significantly better access via their SPO than certified farmers. Of all certified farmers, 21 percent reported that their SPO provided them with at least some personal protective equipment (PPE), compared to 13 percent of the non-certified farmers (examples of PPE are gloves, boots, masks and protective clothing). When looking exclusively to Fairtrade (only) farmers, then 46 percent received at least some PPE from their SPO. This is considerably more than the 13% for non-certified farmers.

Figure 22: Agricultural related service delivery from SPOs to members in 2014 (C = members of certified SPOs and NC = members of non-certified SPOs)



4.1.3 Improved services and support for SPO members – management systems

Conclusions: Almost all certified SPOs had child labor policies and procedures in place and an ICS system to monitor pesticide use. Non-certified SPOs performed less well on these topics but had more comprehensive PPE awareness programmes in place than certified SPOs.

In addition to the above-mentioned capacity to provide training and inputs, SPOs can implement policies and management systems that promote farming performance. The SPO survey included some of them – for instance the existence of child labor policies and procedures (see Figure 23). All but two of thirty certified SPOs had them in place - one of these two concerned the SPO which was in the process of re-certification. Certified SPOs scored better than the non-certified ones. Perhaps surprisingly, most non-certified SPOs also reported to have child labor policies and procedures in place.

Figure 23: Child labor policies and procedures in place at SPO level (C = certified and NC = non-certified)

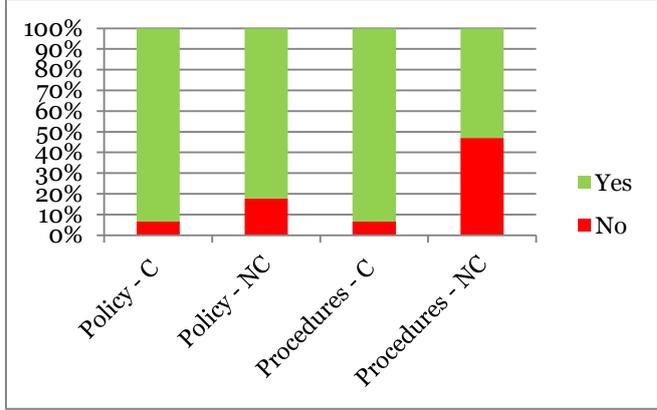
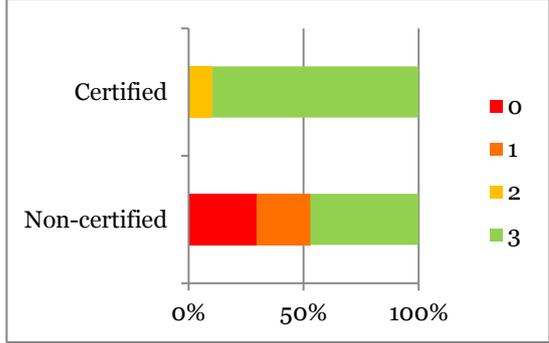


Figure 24: ICS system with number of pesticide related indicators



All but one certified SPO had an internal control system (ICS) which monitored member use of pesticides in terms of banned pesticides, other pesticide types and quantities (see Figure 24). Approximately half of the non-certified SPOs had a full such system in place. The scope of the survey did not allow for an assessment of the quality of these systems.

Of the certified SPOs, 60 percent reported to have a comprehensive awareness program reaching at least 80 percent of the members and workers, almost similar to non-certified SPOs (see Table 12). Non-certified SPOs reported to have more rigorous awareness programs in the use of PPE, including training and refresher courses. Comparing non-certified SPOs with Fairtrade (only) certified SPOs, than they still report to have more rigorous programs. This is somehow in contrast to the outcomes of the farmer survey; as noted in the previous section, the distribution of PPE by the SPO to members was confirmed by 46 percent of the Fairtrade (only) certified farmers and 13 percent of non-certified farmers.

Note that the Fairtrade Standards does not require SPOs to provide PPE to their members, but must implement measures to ensure that all people wear appropriate PPE when handling pesticides or hazardous chemicals. The need for PPE use may also be less for Fairtrade-Organic certified farmers than for Fairtrade (only) certified farmers due to the nature of the products they use.

Table 12: SPO procedures on the use of personal protective equipment (PPE) with regards to pesticide use

Procedures	Certified	Non-certified
1. Organization did not carry out any information activity.	7%	0%
2. Less than 50% of members and workers have been informed OR content/quality of information was insufficient	17%	18%
3. At least 50% of members and workers have been informed AND content of information was sufficient.	17%	24%
4. At least 80% of members and workers have been informed AND content of information was sufficient AND there are informative materials	47%	12%
5. RANK 4 AND there is an ongoing training/awareness plan/ refresher training, or no pesticides or hazardous chemicals are used	13%	47%

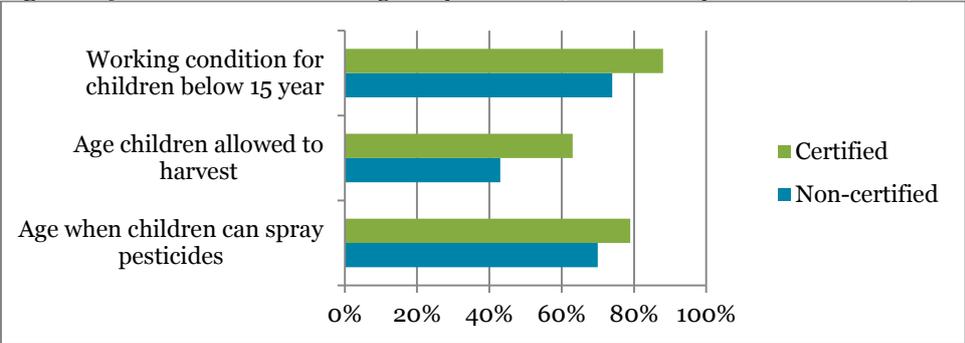
**These categories have been based upon compliance criteria developed by FLO-CERT to determine compliance with the Fairtrade standard. For the purpose of this research, non-certified groups were also assessed by the research team against these FLO-CERT compliance criteria.*

4.1.4 Awareness of human rights

Conclusions: Certified farmers had higher awareness levels on child rights than non-certified farmers, but there is room for improvement.

In the farmer survey, most questions concerned the application of practices and not the farmer knowledge of the Fairtrade Principles and Practices. One of the topics on which farmer knowledge was asked is child rights (as defined in ILO Conventions and the Fairtrade standards). Certified farmers had significantly better responses than non-certified farmers on all questions (see Figure 25). However, awareness levels on child rights by certified farmers showed room for improvement as 6 percent had wrong answers on all questions and only one-third had the right answer on all questions.

Figure 25: Awareness on child rights by farmers (as defined by ILO conventions)



The answers to questions:
 - short hours, light work, outside school times, under supervision of parents
 - 15 years
 -18 years

It should be noted that the question of the age when children are allowed to harvest was formulated too strictly; it suggested that there is a clear age below which children are not allowed to harvest. This is not fully in line with the Standards. In fact, Fairtrade allows children to help their parents in harvesting in the spirit of learning. Child work is something that can be considered as something positive, as it contributes to the child’s development and to the welfare of their families, including food security. It provides them with skills and experience, and helps to prepare them to be productive members of society during their adult life. So, children under fifteen can help their parents in picking cotton, as long as it is outside school times, does not exceed a certain number of hours, is supervised, not forced and not done during spraying.

4.2 Outcomes

The outputs described in section 4.1 were expected to result in increased farming performance. Relevant themes from the Fairtrade ToC for this section are:

- Optimal use of inputs and management of outputs
- Increased productivity and quality
- Elimination of harmful production practices
- Individual and joint ownership of productive assets

4.2.1 Optimal use of inputs and management of outputs – technology and labor

Conclusion: Cotton production in all three countries is non-irrigated and semi-mechanized (animal traction). The dominant labour system was family labor and mutual assistance. Fairtrade certified farmers (11 percent) and particularly Fairtrade-Organic certified farmers (22 percent) made more use of temporary hired labor than control farmers (7 percent).

Farming system

Table 13 shows some characteristics of the cotton farming systems. The differences between certified and non-certified farmers are not significant. The cotton production cycle generally took 120 days. All cotton in the three targeted countries was non-irrigated. The farmer surveys showed that mechanization rates were low with only 8 percent of the certified and 13 percent of the non-certified farmers using a tractor in land preparation. Animal traction was slightly higher among certified farmers. The use of seeders is higher among non-certified farmers (60 percent) than certified farmers 55 percent. The remainder sowed manually. Seeders are used in Senegal and Mali, not in Burkina Faso. The average quantity of seed per ha used is 26 kg for certified farmers and 25kg for non-certified farmers, but this difference is not significant.

Table 13: Characteristics of cotton farming systems

Characteristic	Certified	Non-certified
Length of crop season (days)	120	120
Irrigation	0%	0%
Land preparation*		
(1) None	7%	10%
(2) Manually	3%	2%
(3) Animal traction	82%	75%
(4) Tractor	8%	13%
Seeding*		
(1) Manually	45%	41%
(2) Seeder	55%	60%
Quantity of seed used (kg per ha)	26	25

*not significant p= >0.1, ** marginally significant p = <0.1 , *
** significant p=<0.05

Labor input

The survey included some questions on labor input, although it did not include detailed analysis on how much labor is invested in the farm. Certified farmers had on average nine household members working on the plot and non-certified farmers had ten. The division between men, women and children below eighteen years in terms of number of people involved was approximately equal (see Table 14). Women were more involved in the farm maintenance and harvesting activities. They were much less involved in pesticide

application and worked less frequently on land preparation. The involvement of household children below eighteen years was slightly less at certified farms compared to non-certified farms. They were predominantly involved in harvesting activities, but also regularly in land preparation, sowing and farm maintenance. Four percent of the certified farmers reported that their children were involved in pesticide application (against five percent for non-certified farmers). When this concerns (hazardous) conventional pesticides this is not acceptable by Fairtrade standards. Further research is required to understand why farmers make their children to perform such tasks and which type of (bio or chemical) pesticides it involves.

Table 14: Household labor input

Household labor	Certified			Non-certified		
	Female	Male	Child (<18)	Female	Male	Child (<18)
Number of household members working on plot	3.2	3.2	2.6	3.1	3.4	3.2
Activity						
Land preparation	27%	96%	44%	18%	94%	52%
Sowing	56%	94%	32%	43%	92%	51%
Maintenance	79%	94%	36%	69%	97%	52%
Pesticide application	7%	94%	4%	6%	94%	5%
Harvesting	91%	96%	54%	82%	93%	56%

Table 14 only focuses on household labor input. In the West African context, farmers are often assisted by neighbors and relatives as they help these people in return. The survey showed that for most farmers this mutual assistance was an important source of labor. Certified farmers made use of neighbors and relatives more frequently than non-certified farmers (see Table 15).

Table 15: Frequency of mutual assistance per activity

Mutual assistance	Certified	Non-certified
Percentage of farmers who rely on mutual assistance	77%	68%
Activity		
Land preparation	27%	21%
Sowing	26%	22%
Maintenance	37%	36%
Spraying	17%	18%
Harvesting	70%	61%

Comparing sources of labor for Fairtrade (only) certified, Fairtrade-Organic farmers and non-certified we see that Fairtrade (only) certified farmers relied more on family labor than the other categories and Fairtrade-Organic certified farmers relied more on mutual assistance and hired labor (see Table 16). This could be explained by the fact that average household sizes in Burkina Faso are considerably lower than in Senegal, and especially Mali. The fact that non-certified farmers in Burkina Faso also relied less on household members compared to the other two countries may support this.

Table 16: Labor input type

Labor	Fairtrade	Fairtrade-Organic	Non-certified
Household Labor			
- Female (<18) (number of people)	3.5	3	3.1
- Male (<18) (number of people)	3.9	2.6	3.4
- Child (<18) (number of people)	3.9	1.5	3.2
Mutual assistance (frequency of farmers)	61%	88%	67%
Hired labor (frequency of farmers)	11%	22%	7%

When farmers used hired labor (14 percent of total sample size), it was on a temporary basis with verbal agreement (there was only 1 farmer with a permanent work contract). Workers were paid in different ways (see Table 17). The variation in reported wages was high. The low number of responses and the differences per country made it impossible to calculate representative averages or make comparisons between certified and non-certified farms.

Table 17: Payment arrangement

Payment arrangements	Frequency in total sample (264)
Per hectare	15
Per day	10
Per month	4
Per harvest	8

4.2.2 Optimal use of inputs and management of outputs – farm inputs

Conclusion: *The proportion of certified farmers using chemical inputs was considerably lower than for non-certified farmers. This was due to the fact that Fairtrade-Organic farmers generally did not use them. The chemical fertilizer and pesticide use of Fairtrade (only) certified and non-certified farmers was comparable. Compared to non-certified farmers, both Fairtrade-Organic and Fairtrade used more organic fertilizers.*

Farm inputs

Cotton farmers used different types of inputs. The proportion of certified farmers using chemical fertilizers and chemical pesticides was lower compared to non-certified farmers (see Table 18). This is due to the fact that Fairtrade-Organic certified farmers use no chemical products. In fact, a slightly higher proportion of Fairtrade (only) farmers used chemical pesticides than non-certified farmers. Certified farmers, both Fairtrade only and Fairtrade-Organic use organic fertilizers more often than non-certified farmers.

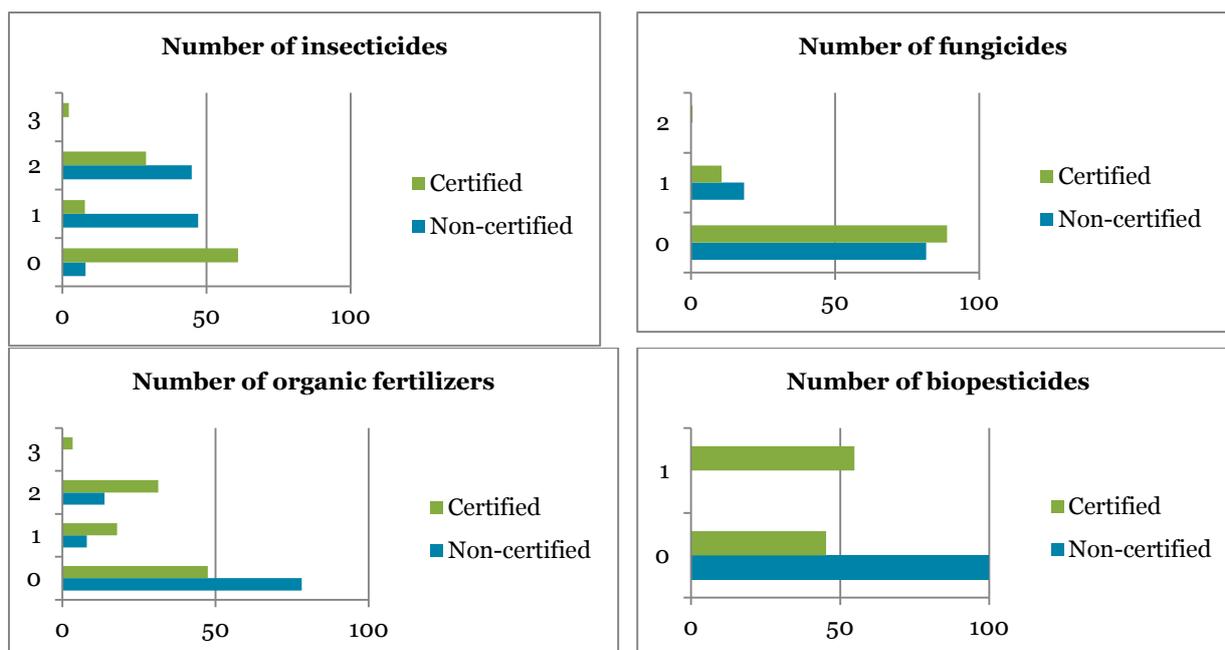
Table 18: Proportion of farmers using inputs

Input	Certified	Non-certified	Fairtrade (only)
Chemical fertilizers	41%	100%	100%
Organic fertilizers	53%	22%	27%
Herbicides	38%	87%	91%
Insecticides	39%	92%	93%
Fungicides	11%	18%	26%
Biopesticides	55%	0%	0%

Figure 26 shows the number inputs used per farmer type. The certified group includes both Fairtrade (only) and Fairtrade-Organic farmers and therefore certified farmers use considerably less types of chemical inputs than non-certified farmers. Fairtrade (only) farmers used a slightly higher variety of inputs (e.g. herbicides) than non-certified farmers.

Figure 26: Number of inputs used per type of farmer





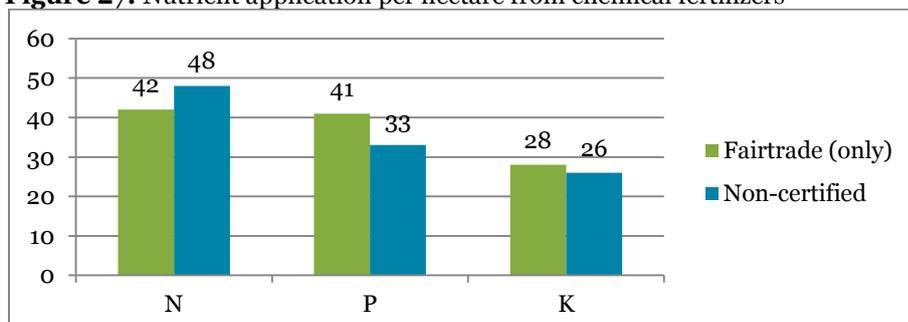
In all three countries, NPK and Urea were prescribed by the cotton companies. Fairtrade (only) certified farmers applied NPK more frequently and in higher doses than non-certified farmers (see Table 19). Fairtrade (only) certified farmers applied Urea less frequently and in lower doses than non-certified farmers.

Table 19: Chemical fertilizer input

	NPK		Urea	
	% use	Quantity (kg/ha)	% use	Quantity (kg/ha)
Fairtrade (only)	96%	186	60%	53
Non-certified	92%	161	83%	65

The figures above can be converted into average specific nutrient application volumes from chemical fertilizers. Figure 27 shows that certified farmers have higher P and K application rates and lower N application rates from chemical fertilizers than non-certified farmers. Considering the strict recommendations from the cotton companies, one might expect that differences between countries between certified and non-certified farmers would be smaller. This was not the case. It is unclear whether the differences were related to different fertilizer recommendations per locality within the countries, differences in access to fertilizers or conscious farmer decisions to optimize fertilizer regimes. The follow-up evaluation is recommended to look deeper into this.

Figure 27: Nutrient application per hectare from chemical fertilizers



Based upon the following N:P:K contents: Senegal = 14:23:14, Mali = 14:18:18, Burkina Faso = 14:18:18

Table 20 shows the average amount of organic fertilizers used by certified and non-certified farmers. On average certified farmers, and in particular Fairtrade-Organic, farmers used three times more compost and manure than non-certified farmers which is not surprising since these farmers did not use chemical fertilizers. Fairtrade only certified farmers use also more organic fertilizers than non-certified farmers.

Table 20: Organic fertilizer input

Biological fertilizer inputs (average)	Certified	Non-certified
Manure (kg/ha)	150	43
Compost (kg/ha)	1633	514

Table 21 shows the recommended dose per hectare for of some of the pesticides used in Senegal. This information was collected from expert interviews. The main products used in all countries were allowed by Fairtrade. We did not obtain the recommended doses for Mali and Burkina Faso, but the same kind products were used in those countries. Assuming that the Senegal recommended doses applied for all three countries, than there seemed to be a good awareness of Emacot and Triumph dosages. Almost all certified (Fairtrade only) and non-certified farmers using these pesticides applied the right doses. Ten percent of certified farmers using Emacot used twice as much as the recommended dose. Less than half of the certified farmers using Attakan used the recommended dose; the rest used one liter which is above the recommended dose. All non-certified farmers used at least four times more than the recommended dose of 0.25 liter with some farmers using 35 liters per hectare. Both certified and non-certified farmers used more than the recommended dose of Tian. Certified farmers used 0.25 liters instead of 0.2 liters whereas non-certified farmers used on average one liter, 5 times more than the recommended dose. As the survey revealed many different types of pesticides in use, it is not possible to provide firm conclusions on whether certified or non-certified farmers use more or less pesticides in terms of volume.

Table 21: Percentage of farmers using chemical pesticides above recommended dose by Senegalese cotton company (only farmers who use these products are included)

Pesticide	Recommended dose/ha	Fairtrade (only) above recommended dose (%)	Non-certified above recommended dose (%)
Emacot	0.5 L	10% (n=63)	2% (n=44)
Triumph	0.25L	0% (n=54)	0%(n=36)
Attakan	0.25 L	66% (n=13)	100% (n=15)
Tian	0.2 L	100% (n=5)	100% (n=7)
Califor G	3 L	0% (n=43)	0% (n=34)

The majority of Fairtrade certified and non-certified farmers used the same type of pesticides. However the variety in products was larger for non-certified farmers than certified ones.

The default pesticide regime prescribed by the cotton companies was the ‘calendar treatment’ where farmers spray fixed quantities at fixed moments in the year. There was very limited implementation of stage-specific or threshold spraying which can be considered as more efficient methods (see Table 22). All Fairtrade-organic farmers used biopesticides.

Table 22: Pesticide regimes

Pesticide regime	Fairtrade (only)	Fairtrade-Organic	Non-certified
(1) Calendar treatment	96%	0%	98%
(2) Stage-specific treatment	0%	0%	0%
(3) Threshold sprays	4%	0%	1%
(4) Integrated Plant and Protection Management (IPPM)	0%	0%	1%
(5) Biopesticides	0%	100%	0%

4.2.3 Optimal use of inputs and management of outputs – costs

Conclusion: Ignoring the costs of non-paid labor, there was a cost efficiency advantage to Fairtrade (only) and certainly Fairtrade-Organic production compared to non-certified farms.

The farmer survey asked farmers to provide the total costs per season for specific activities (see Figure 28 and Table 23). The quality of this data should be considered with caution as many farmers did not keep records. It also does not include the costs of non-paid labor. However, it still provides a useful indication. Certified farmers had on average 65 percent lower costs per ha than non-certified farmers (96 Euro per ha vs. 172 Euro per ha). This was mainly due to the low input costs for Fairtrade-Organic farmers. Fairtrade (only) farmers had 12 percent lower costs than non-certified farmers. Fairtrade (only) farmers had lower input, equipment (none) and other costs than non-certified farmers. Fairtrade-Organic production had considerably lower input costs.

Figure 28: Farm costs per ha divided per cost category

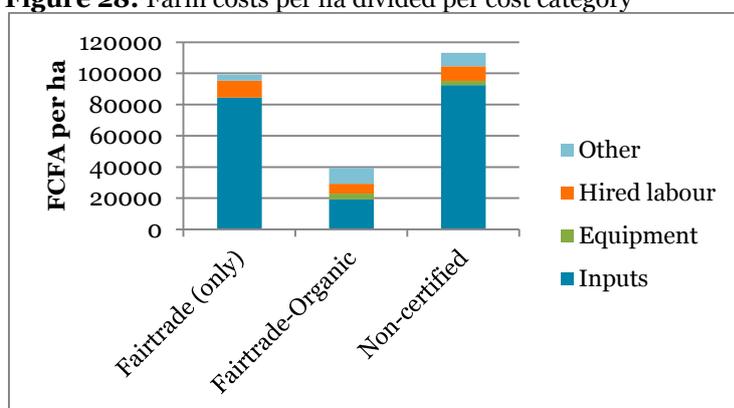


Table 23: Total farm costs per ha

	FCFA per ha
Fairtrade (only)	99,325
Fairtrade-Organic	39,439
Non-certified	112,515

4.2.4 Increased productivity and quality

Conclusion: Fairtrade (only) certified farmers had similar yields to non-certified farmers. Fairtrade-Organic certified farmers had considerably lower yields. These data should be considered with care as record keeping was generally average to poor at both farm and SPO level. Overall product quality standards were high for both certified and non-certified farmers, although not always known.

Productivity

This study collected data from different sources to estimate productivity. According to farmer surveys, the average yield in the 2013/14 season for Fairtrade (only)certified farms was 986 kg cotton grain per ha (see Figure 29). This is slightly lower than conventional cotton (1027 kg/ha). Fairtrade-Organic cotton had a significantly lower yield of 517 kg/ha.

The data we collected at second degree organizations showed a similar picture, although Fairtrade certified was slightly higher than conventional and Fairtrade-Organic showed even lower than the farm data (see Figure 31). The data collected at first degree organizations, showed significant lower yields for Fairtrade certified farmers (see Figure 30). It should be noted that due to miscommunication, no data was collected at first degree SPOs in Mali.

Figure 29: Yield according to farmer surveys (kg/ha for season 2013/14)

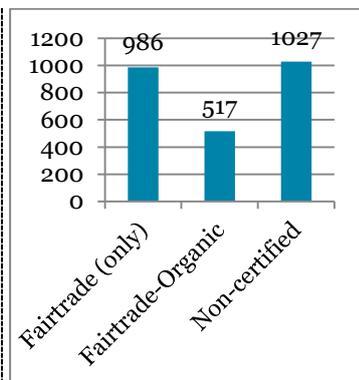


Figure 30: Yields according to first degree organizations (season 2013/14 – data from Mali not available)

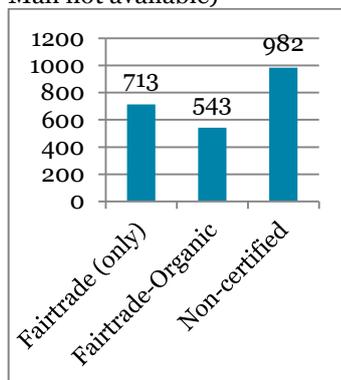


Figure 31: Yields according to second degree organizations

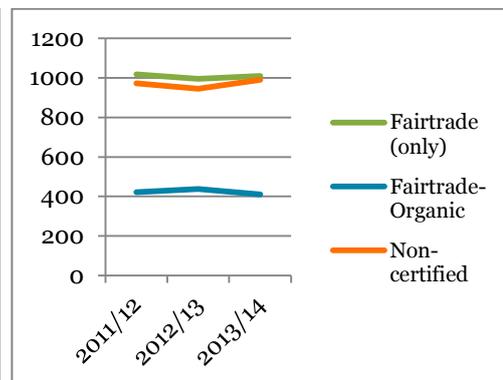


Table 24: Average yield per country and certification, according to farmer surveys (2013/2014)

	Burkina Faso	Mali	Senegal	Total
Fairtrade (only)	1129	925	987	986
Fairtrade-Organic	553	493	433	517
Conventional	1116	1089	912	1027

Based on the farm data, productivity was highest in Burkina Faso for both certified and non-certified farmers (see Table 24). Data from the second degree SPOs revealed relatively stable yields per ha in the last three seasons for certified and non-certified farmers. However, when looking at data per country there is a downward trend in Senegal (which is in line in the national statistics presented in chapter 2) and a (strong) upward trend in Mali and (slightly) upward trend in Burkina Faso. The surveys at first degree SPOs included a question on whether people thought productivity had changed in the last three seasons; approximately two-thirds of the certified and non-certified SPOs in Burkina Faso and Senegal reported decreased yields and one third thought they had increased. A higher share of certified first degree SPOs experienced positive trends in productivity (39 percent of certified SPOs versus 27 percent of non-certified SPOs).

The most important reasons for changes in yields (both positive and negative) according to certified first and second degree organizations were: good agricultural practices, climate and rainfall, and seed quality (see Table 25). Among non-certified SPOs, soil degradation was indicated as the most important factor of changes in yields, followed by respect of good agricultural practices and climate and rainfall.

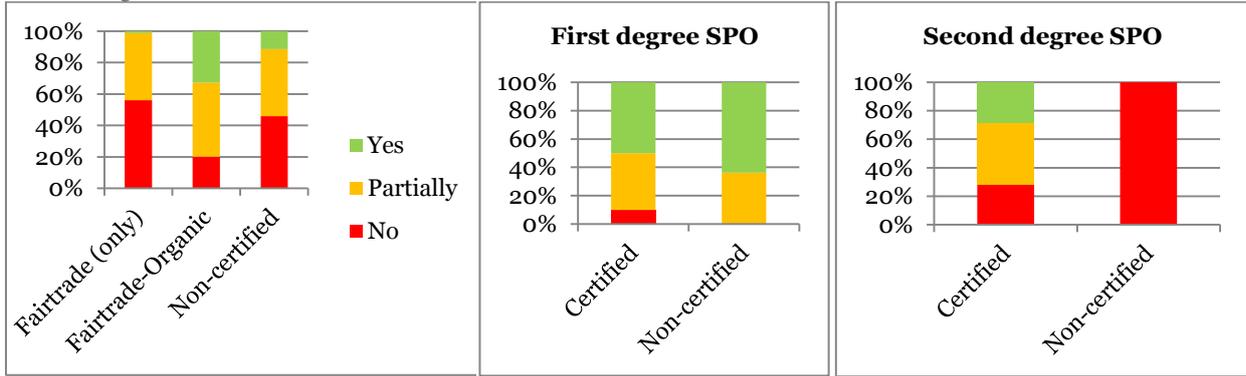
Table 25: Frequency in responses of influencing factors on yield according to SPOs

Factor	Certified	Non-certified
Good agricultural practices	53%	42%
Seed quality	36%	0%
Pesticide use	25%	17%
Fertilizer use	18%	17%
Technology use	11%	25%
Soil degradation	29%	58%
Climate / rainfall	39%	33%

Record keeping

The reliability of the productivity data above depended partly on the capacity of farmers and SPOs to keep records. This varied significantly: certified farmers and second degree organizations demonstrated better record keeping practices than non-certified farmers ones, but first degree non-certified SPOs performing better than certified ones (see figure 32).

Figure 32: Record keeping practices at farm, first degree and second degree organizations (excluding Mali for first degree SPOs)



Product quality

Most farmers (905) knew the quality grade of their cotton. Of these, all but one had first grade quality (see Figure 33). Unawareness levels on quality grades were highest among non-certified farmers and lowest among Fairtrade-Organic certified farmers (see Figure 34).

Figure 33: Quality grade cotton production

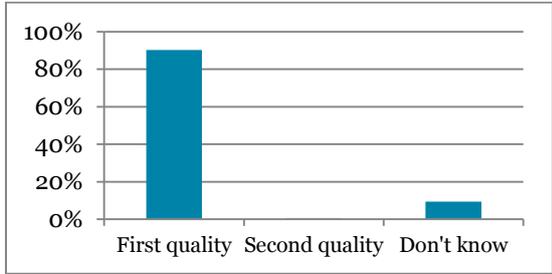
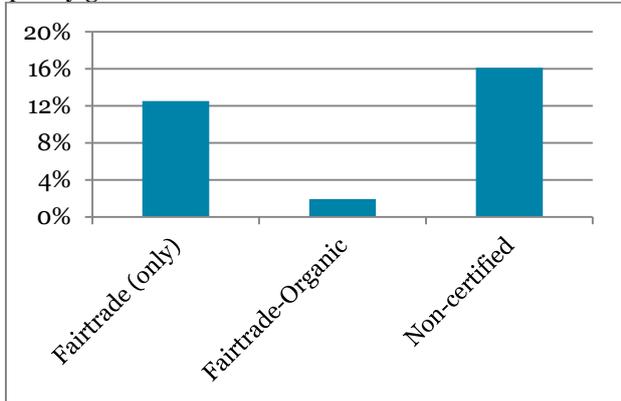


Figure 34: Share of farmers who do not know their quality grade



4.2.5 Elimination of harmful production practices

Conclusion: Certified farmers scored slightly better on environmental practices than non-certified farmers.

Table 26 shows farmer performance on various environmental practices for certified farmers and non-certified farmers. This is based on the farmer surveys. Crop rotation practices were similar. This is not surprising as the prescribed cotton system in West Africa is based upon rotation. For example, CMDT in Mali requires farmers to cultivate a maximum of 33 percent of their land with cotton and they are expected to rotate. The surveys showed that rotation was most common with grains and pulses. The most popular grains were sorghum, maize and millet. The most popular pulses were groundnuts and cowpeas.

Certified farmers had on average one tree more per hectare of cotton field than non-certified farmers (not significant). They also scored slightly better on anti-erosion measures. The most frequently used anti-erosion measure was the use of stone barriers (56 percent). One third of the certified farmers still did not use any anti-erosion measures (and 47 percent of non-certified farmers).

The majority of the certified farmers (71 percent) burned their crop residues (and 79 percent for non-certified farmers). Certified farmers scored slightly better than the non-certified farmers in terms of recycling and re-use of crop residues.

The survey also included a question on other income generating activities at household level (see section 4.3.). The responses showed that ten percent of the households of certified farmers and fifteen percent of the households of non-certified farmers produced charcoal. In the Sahel, this activity is considered to be unsustainable and contributing to desertification.

Table 26: Overview of farmer performance on environmental practices

Practice	Certified	Non-certified
Crop rotation	96%	99%
Years of cotton production before rotation	1,5	1,4
Years of cropping before fallow period	4,7	5,9
Length of fallow period (in years)	3,8	4,4
Trees per ha in cotton field*	8,6	7,6
Anti-erosion measures	67%	53%
(1) Stone barriers to prevent water from running off / slow down water * *	56%	45%
(2) Dikes to prevent water from running off / slow down water *	10%	5%
(3) Planting anti-erosion crops, e.g. grasses on slopes *	14%	16%
(4) Building ridges in any direction *	6%	6%
(5) Building ridges along slopes (opposite to the direction of the slope) *	1%	0%
Use of crop residues *		
(1) Leave in the field	5%	5%
(2) Burn	71%	79%
(3) Plow in the soil	16%	14%
(4) Composting, construction or biofuels	7%	2%
Production of charcoal as income generating activity	10%	15%

* not significant $p = >0.1$, ** marginally significant $p = <0.1$, *** significant $p = <0.05$

There were significant differences in the use of personal protective equipment (PPE) in pesticide use. Ten percent of the Fairtrade (only) farmers and 28 percent of the non-certified farmers do not use any PPE (see Table 27). Almost three-quarters of the certified farmers and 31 percent of the non-certified farmers using pesticides used basic PPE but not always consistently. Non-certified farmers outperform Fairtrade (only) farmers with regards to consistent use of PPE (41 percent vs. 16 percent). These results were significant and partly in line with the outcomes of the SPO survey showing that non-certified SPOs reported to have more rigorous PPE procedures in place than certified SPOs (see section 4.2 – but this is something which was not confirmed by the farmer surveys).

Table 27: Use of Personal Protective Equipment

PPE use*	Fairtrade (only)	Non-certified
(1) No measures implemented. Members/ workers work unprotected as common practice.	10%	28%
(2) Basic measures have been implemented BUT it is not used at all times OR workers are charged for PPE	74%	31%
(3) Measures have been implemented and members have access to PPE AND workers are provided with free essential PPE AND its use is enforced	16%	41%

**These categories have been based upon compliance criteria developed by FLO-CERT to determine compliance with the Fairtrade standard. For the purpose of this research, non-certified groups were also surveyed by the research team using FLO-CERT compliance criteria.*

4.2.6 Individual and joint ownership of productive assets

Conclusions: *There were no significant differences between certified and non-certified farmers in ownership of productive assets. Men possessed more farmland than women. Certified farmers, notably men, more frequently owned a cow.*

In terms of individual ownership of productive assets, there were no significant differences between certified and non-certified farmers. However, men possessed more farmland than women (11 ha vs. 7 ha) (see Table 28). Both cattle and tractors were used as the land preparation of cotton production. Approximately two-thirds of farmers owned at least one cow which could be used for land preparation. Cow ownership by women was higher among non-certified farmers than among certified farmers. Tractor ownership was very low.

Table 28: Possession of productive assets of households

	All		Men		Women	
	Certified	Non-certified	Certified	Non-certified	Certified	Non-certified
Farmland (ha)	10.0*	10.4*	11.4	11.5	7.2	7.0
Cow	68%*	62%*	77%	61%	52%	67%
Tractor	3%*	1%*	3%	2%	5%	0%

* not significant $p > 0.1$, ** marginally significant $p < 0.1$, *** significant $p < 0.05$

4.3 Impact

Improved farming performance can have a positive impact at household level. This section presents some of the possible impacts.

- Improved household income, assets and standards of living
- Less vulnerability, increased food security

4.3.1 Improved household income, assets and standards of living

Conclusion: *For certified and non-certified farmers cotton represented the main source of household income and its share in total household income was comparable for both groups. The most frequent other income sources were other agricultural activities, livestock and commerce. For most farmers (certified and control) total household income has increased in recent years.*

Cotton accounted for more than 50 percent of the total household income for more than half of the sample (see Figure 35). This share is comparable across certified and non-certified farmers. For two percent of the farmers, both certified and non-certified, cotton was the only household income source. The most common other source of household income was the cultivation of another crop (see Table 29); many farmers produced and sold grains and pulses and some also produced vegetables or fruits. Livestock was another source of income for more half the households. Small-scale commerce was an income generating activity for almost a quarter of the farmers and family remittances were a source of revenue for approximately 15 percent.

Figure 35: The share of cotton revenues in total household income

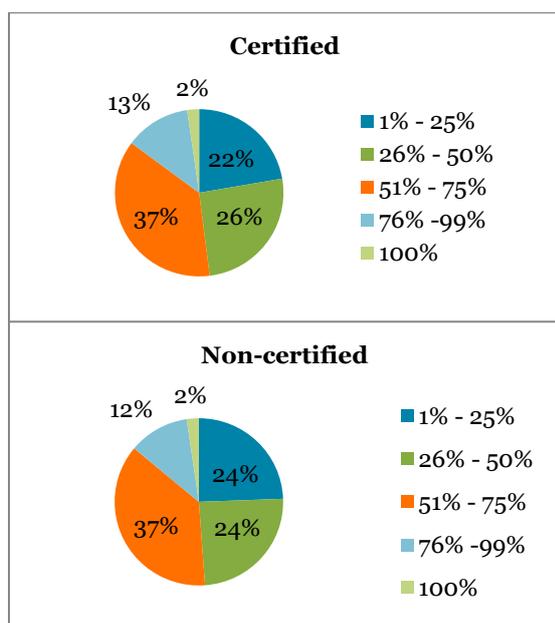
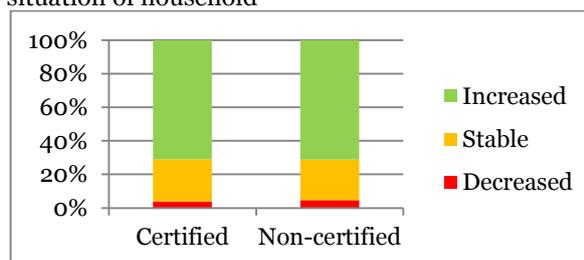


Table 29: Frequency of other income generating activities

Activity	Certified	Non-certified
Agriculture (excluding cotton)	77%	83%
Livestock	51%	62%
Fishery	2%	0%
Non Timber Forest Products	2%	1%
Farm labor	2%	2%
Non- farm labor	2%	1%
Commerce	24%	22%
Production of charcoal	10%	15%
Crafts	7%	3%
Construction	4%	1%
Remittances	18%	14%

Certified and non-certified farmers responded similarly to the question whether they perceived a change in the economic situation of their household in recent years (see Figure 36). One percent perceived an increase and four to five percent a decrease. There was a moderate positive correlation between those farmers who experienced an increase in profitability (which is discussed in section 5.2.2) and those who perceived an improvement in the economic situation of the household. Farmers in Burkina Faso were most satisfied (81 percent), followed by Senegal (63 percent) and Mali (59 percent).

Figure 36: Perception on changes in economic situation of household



4.3.2 Less vulnerability, increased food security

Conclusion: Certified and non-certified farmers had a similar profile with respect to food security and the necessity to take out a loan or sell productive assets to cope with shocks.

Certified farmers and the counterfactual group gave almost the same responses on their need to take out a loan or sell assets to deal with shocks as well as whether they had experienced food shortage (see Table 30)

Table 30: Indicators of economic vulnerability and food security

Question	Responses	Certified	Non-certified
Did you either have to (1) take out a loan, (2) sell productive or natural assets to deal with natural, medical or other shocks in 2014?	No	68%	62%
	Yes	32%	38%
Did you in the last year experience periods of inadequate access to food for the household?	No	70%	71%
	Yes	30%	29%
	Number of months	2,4	2,7

5. Improved market access

Fairtrade promotes fair trade both as a means to improve farmer livelihoods and as an objective in itself. This research did not include the supply chain in its scope but focused on market access aspects of farmers and SPOs.

Figure 37: Fairtrade’s Theory of Change: *Improved market access*

Intervention	Output	Outcomes	Impacts
<ul style="list-style-type: none"> • Fairtrade Minimum Price • Fairtrade Premium • Fairtrade Trade Standard • Producer support services • Building Fairtrade markets 	<ul style="list-style-type: none"> • Enhanced access to Fairtrade conditions 	<ul style="list-style-type: none"> • Resilient and viable small producer businesses • Growth with integrity in Fairtrade 	<ul style="list-style-type: none"> • Improved household income, assets and standards of living

This chapter addresses input, output and outcomes. The applicable impacts have been discussed in chapter 4 and will be not described in this chapter.

As depicted in Figure 37, Fairtrade has several instruments to promote fair trade. The most relevant for this survey are the Fairtrade Minimum Price and Fairtrade Premium paid to the SPO. The Fairtrade Trader Standard may also influence trade relationships between SPOs and their buyers. Producer support services may support SPOs in the development of commercial competences and in creating market linkages. The marketing activities of Fairtrade should improve overall demand for Fairtrade products.

5.1 Output

The relevant output related themes from Fairtrade’s Theory of Change for this section are:

- Significant and sustained access to Fairtrade markets
- Supportive trading relationships
- Fair prices and protection of volatility

5.1.1 Significant and sustained access to Fairtrade markets and supportive trading relationships

Conclusion: *Sustained access to Fairtrade (only) markets was an issue. Only two out of eight certificate holders could sell all their production as certified. Fairtrade-Organic had better market uptake. The high degree of sector organization in all three countries added to the complexity of creating more transparent and direct trade relationships between producers and buyers. Such relationships were mostly absent.*

The organization of the Senegalese, Malian and Burkina Faso cotton sector determined to a great extent how the market access of SPOs and their members was organized. Cotton farmers had no problem in selling their seed cotton. They were allowed to sell only to the cotton company which was obliged to buy all cotton from all farmers in their supply area. Each SPO supplied a specific ginnery. Average distances between the SPOs and their ginnery varied from 54 km in Senegal, and 76 km in Mali to 384 km in Burkina Faso. Transport to the ginnery was organized by the cotton company.

The official Fairtrade statistics showed that sustained access to Fairtrade markets was an issue in Senegal and Mali. Important volumes of certified production have not been sold in Fairtrade markets. In Burkina Faso the statistics showed no issues. This was confirmed by the SPO surveys. In Burkina Faso all cotton (Fairtrade-Organic) is sold under Fairtrade conditions, while in Senegal and Mali some SPOs did not sell anything or only a part of their certified cotton under Fairtrade conditions. In some cases the cotton marketing was still pending, while in other cases it had been sold as conventional cotton. Over the last three years, two out of eight certified SPOs were able to sell all their cotton as certified. Several SPOs did not sell anything under Fairtrade conditions in one or more years. The market access is particularly an issue for the Fairtrade (only) certified cotton and less for the Fairtrade-Organic cotton.

As explained in chapter 2, it has not been possible to produce reliable production and marketing figures for certified cotton. The SPO surveys showed that some SPO certificate holders had little insight into the actual status of whether cotton is sold against Fairtrade conditions or not. It could take months and sometimes more than a year between harvesting and confirmation that cotton has been sold. Particularly, in Mali it was not clear whether and how much certified cotton has been sold. All cotton in Mali, including the certified, was marketed by the national cotton company CMDT. CMDT provided sporadic updates on whether the cotton was still in the warehouse, had been sold under Fairtrade conditions, or had been sold as conventional cotton. The figures provided by Fairtrade show that important certified volumes had not been sold as certified (e.g. in Mali none in 2013 and only 40 percent in 2014). Also in Senegal many SPOs lack information about the marketing of the cotton, although this information is present at SODEFITEX level. In Burkina Faso, all SPOs, including first degree had up to date information.

The high degree of sector organization in all three countries added to the complexity in creating more transparent and direct trade relationships between producers and buyers. For example, in Mali, despite severe lobbying, it was forbidden to export cotton directly; all cotton was marketed by CMDT.

5.1.2 Fair prices and protection of volatility

Conclusion: *Prices for conventional cotton were below the Fairtrade Minimum Price. Farmers selling their product as Fairtrade received a price differential between eight percent and eighteen percent above the conventional price. Farmers selling as Fairtrade-Organic received a price differential between 27 percent and 60 percent. The Fairtrade Premium paid to SPOs was an additional thirteen percent to fourteen percent per kg or € 8.50 per certified member. Due to issues in market uptake, many farmers and SPOs did not receive these benefits.*

The Fairtrade Minimum Prices and Premium for conventional cotton were set at¹²:

- € 0.42 per kg of seed cotton = 275 FCFA
- € 0.05 per kg of seed cotton= 33 FCFA

The Fairtrade Minimum Prices and Premium for Organic cotton were set at¹³:

- € 0.50 per kg of seed cotton = 328 FCFA
- € 0.05 per kg of seed cotton = 33 FCFA

Given the market conditions in the last three seasons, the price of conventional cotton has been lower than the Fairtrade Minimum Price. This meant that volumes sold as certified (under Fairtrade conditions) received a price differential compared to conventional cotton. Table 31 shows what farmers received when sold as certified compared to conventional. If sold under Fairtrade conditions, the farmers received a price of about the Fairtrade Minimum Price. This is in line with the Fairtrade regulation as the minimum price is paid to the certificate holder who may deduct some costs. As explained above, in Senegal and Mali some

¹² See www.fairtrade.net ; these prices are valid since 2011.

¹³ See www.fairtrade.net ; these prices are valid since 2011.

cotton produced as certified has not been sold as Fairtrade and consequently farmers did not receive a price differential. In order to keep farmers motivated to continue producing Fairtrade-Organic, one of the certificate holders paid producers a small premium funded from its own resources.

For the payments of the Fairtrade Premium to the SPO, there is some lack of clarity for those SPOs who did not know – or had no sound administration of – how much had been sold as certified. First level SPOs are generally unaware, but some certificate holders were also unable to present a clear picture. For example, two certificate holders in Senegal had records of received Premium, but it was not clear which marketed volume this corresponded to. One certificate holder in Mali reported a premium of 14 FCFA per kg three seasons ago; although it is not fully clear whether this was for the total production or a part of it.

Those SPOs which did have their administration in order were able to show that the Fairtrade Premium they received was close to the official Fairtrade prices. One of the certificate holders in Senegal did receive a Fairtrade Premium between 30 and 33 FCFA per kg in the last three seasons. The certificate holder in Burkina Faso showed a stable Fairtrade Premium of 34 FCFA in the last 3 seasons. These premiums corresponded to on average € 8.50 per SPO certified member.

Table 31: Market uptake, Fairtrade Minimum Prices and Premiums for certified seed cotton between 2011/12 and 2013/14

Certificate holder	% of certified production sold as certified	Price received for certified production (FCFA/kg)		Premium for certified sales (FCFA/kg)
		Sold as certified	Sold as conventional	Sold as certified
Senegal				
- 1 Fairtrade-Organic	100%	325	n.a.	30-33
- 2 Fairtrade (only)	No records available , but <100%	275	255	Yes, but unknown for which volume
Burkina Faso				
- Fairtrade-Organic	100%	325-375	n.a.	34
Mali				
- 1 Fairtrade-Organic	0% - 100%	328	235-255 (300*)	Yes, but unknown for which volume
- 3 Fairtrade (only)	No records available, but <100%	275	235-255	No records available

* This is the price paid by the certificate holder to its members, although the SPO had not yet sold the cotton under Fairtrade conditions.

Table 32 shows the evolution of prices and price differentials over time. In Senegal, prices have remained constant over the years for all categories. Overall, price volatility has been limited in recent years for conventional cotton. A closer look at the development of prices over time showed that Fairtrade-Organic prices in Burkina Faso have surpassed the Fairtrade Minimum Price. Over the last three seasons, the Fairtrade Minimum Price was approximately 8 percent higher than conventional prices in Senegal and between 8 percent and 17 percent higher in Mali. For Fairtrade-Organic the price differential represented a 27 percent higher price in Senegal and a 33 percent to 60 percent higher price in Burkina Faso compared to the conventional price.

Table 32: Conventional prices and price differentials received for Fairtrade and Fairtrade-Organic seed cotton (in FCFA)

	2011/12			2012/13			2013/14		
	Conventional	Fairtrade	Fairtrade-Organic	Conventional	Fairtrade	Fairtrade-Organic	Conventional	Fairtrade	Fairtrade-Organic
Burkina Faso	245	n.a.	+80	245	n.a.	+105	235	n.a.	+140
Mali	235-255	+45	+93	255	+20	0/?	250	0	0/65*
Senegal	255	+20	+70	255	+20	+70	255	+20	+70

* This is the premium paid by the certificate holder to its members, although they had not yet sold their cotton as certified at the time of the survey.

5.2 Outcomes

The relevant output related themes from the Fairtrade ToC for this section are:

- Development of markets
- Enhanced negotiation power, control and/or ownership in supply chains
- Increased profitability, reduced risk for SPOs and members

5.2.1 Development of markets and enhanced negotiation power, control and/or ownership in supply chains

Conclusion: Due to the top-down organization of the sector, farmers had limited influence on price negotiations. Those few SPOs having direct contact with international buyers felt they had a sufficient capacity to negotiate.

The supply chain relationships in the cotton sector of West Africa are organized by the cotton companies. The consequence is that the SPO generally did not know the buyers of their cotton. None of the non-certified SPOs knew the companies that bought from the cotton company and none of the certified first degree SPOs knew the buyers of their cotton. For the certified SPOs, two certificate holders in Senegal (out of three) and one in Mali (out of four) knew one to three buyers, generally up to manufacturer level. Two out of these three were involved in negotiations with these clients and they both felt they had good capacity to negotiate. However, farmers and certificate holders have no, or only limited, influence on the negotiations with regards to prices and sales conditions of the conventional cotton, including payments. This is determined at sector level and producers can only influence this through their national representation. An exception exists in Burkina Faso, where the certificate holder is the producer counterpart at national level and has (potentially) more direct influence than in Senegal or Mali.

5.2.2 Increased profitability, reduced risk for SPO members

Conclusion: Assuming full market uptake for certified production, the available data suggests that Fairtrade certified farmers would be more profitable per hectare in Mali and equally profitable in Senegal when compared to conventional farmers. Fairtrade-Organic certification would be more profitable per hectare than non-certified conventional farming in Burkina Faso, but less profitable in Senegal and Mali. However, the smaller cotton farm sizes for Fairtrade-Organic farmers reduce the total farm income considerably when compared to Fairtrade (only) and non-certified farmers. Seventy percent of both certified and control farmers are satisfied with the profitability of cotton. Slightly more certified farmers experienced an increase in profitability in cotton production in recent years.

Fairtrade certification did only have a positive influence on the gross revenue of SPOs through the Fairtrade Premium. The compensation for collecting cotton from members was similar for certified and non-certified cotton and set at national level. The survey did not collect the costs of certification such as audit costs and management costs.

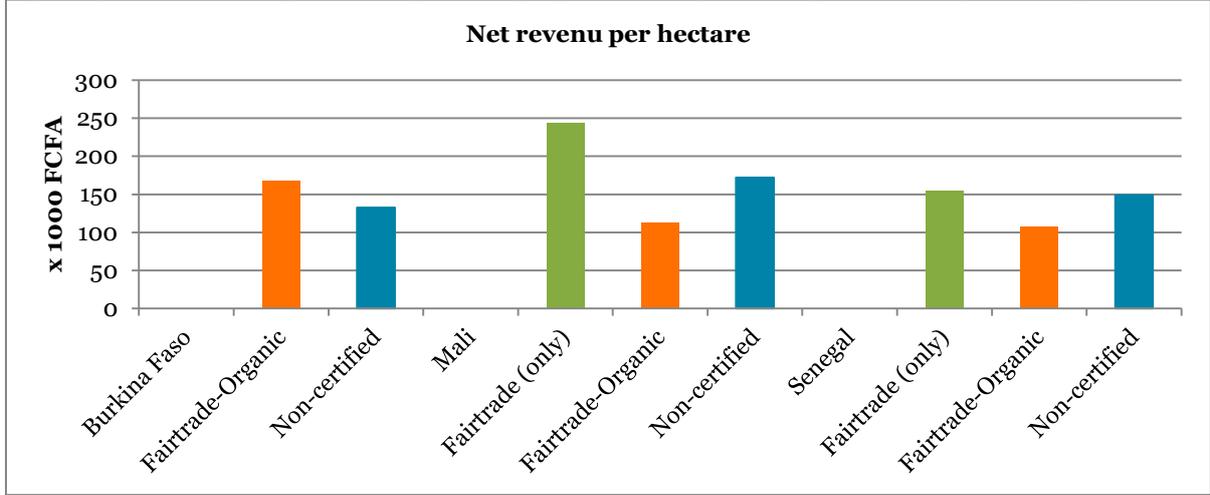
Chapter 4 explained that certified farmers had lower costs and comparable yields (for Fairtrade) or lower costs and lower yields (for Fairtrade-Organic) compared to non-certified farmers. Combining the yield, price and costs per ha we were able to calculate gross revenue and net revenue under the assumption that all certified production is sold as such. Table 33 shows these in averages per country and certification type. These figures should be treated with great care as not all data can be considered reliable. It would require a more detailed costs-benefit analysis (preferably on a smaller sample of farmers) to produce more precise figures and to include the costs of family labor and mutual assistance.

Table 33: Gross and net revenue of farmers per hectare in the season of 2013/14 under the assumption that all certified production is sold as certified

Country	Yield / ha	Price / kg	Gross revenue / ha	Costs / ha	Net revenue / ha	Ha / farmer	Net revenue / farmer
Burkina Faso							
- Fairtrade-Organic	553	375	207,289	39,258	168,031	1.09	182,585
- Non-certified	1.116	235	262,363	129,768	132,595	3.45	457,345
Mali							
-Fairtrade (only)	1.129	275	310,500	66,306	244,193	3.70	903,515
-Fairtrade-Organic	493	328	161,610	49,493	112,117	1.16	129,636
-Non-certified	1.089	250	272,354	100,506	171,848	3.26	561,033
Senegal							
-Fairtrade (only)	925	275	254,435	99,936	154,499	0.94	144,611
-Fairtrade-Organic	433	325	140,617	32,957	107,660	0.34	36,277
-Non-certified	912	255	232,461	83,402	149,059	1.11	165,730

Based upon these figures, Fairtrade certified farms would be more profitable per hectare in Mali and equally profitable in Senegal compared to the non-certified farms (see Table 34 and Figure 38). Fairtrade-Organic farms would be more profitable than the non-certified farms in Burkina Faso, but less profitable in Senegal and Mali.

Figure 38: Net revenue per ha and per farm per year based upon average farm sizes per country



If we take into account the average farm sizes, non-certified farmers in Burkina Faso make much more money than Fairtrade-Organic farmers. The relatively small farm sizes of Fairtrade-Organic farmers in Senegal and Mali also imply drastically lower net cotton farming revenue per farmer than Fairtrade or non-certified cotton. Again, validation of these figures requires more in-depth cost-benefit analysis at farm level.

At farm level, 63 percent of the certified farmers perceived an increase in the profitability of cotton farming in the last three years compared to 55 percent of the non-certified farmers (see Figure 39). Less than a quarter of all farmers experienced a decrease. Satisfaction levels as to the profitability of cotton production were comparable for certified and non-certified farmers (see Figure 40). Certified farmers in Burkina Faso had higher satisfaction levels than non-certified farmers. Non-certified farmers in Mali had higher satisfaction levels than certified farmers. In Senegal, satisfaction levels were comparable for all categories and about 70 percent was satisfied. Certified women were much more satisfied than non-certified women, while certified men were slightly less satisfied than non-certified men.

Figure 39: Perceived development of profitability of cotton cultivation in last three years

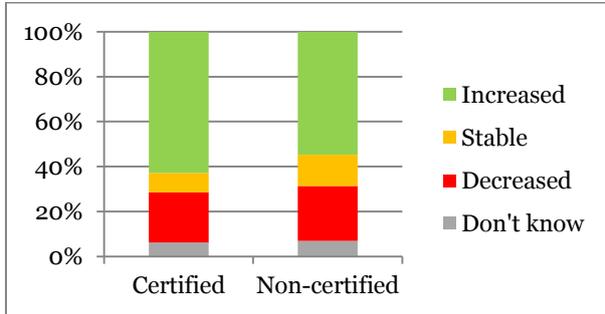
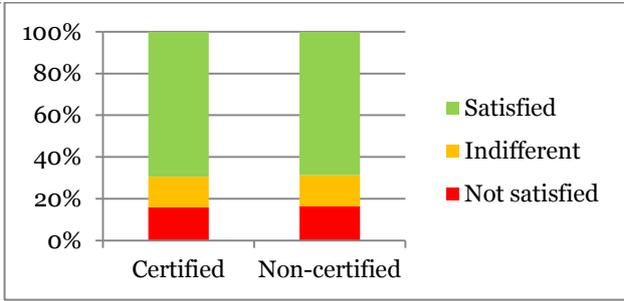


Figure 40: Farmer satisfaction about cotton profitability



6. Strong and inclusive SPOs

Building strong smallholder producer organizations is an important objective of Fairtrade. It is considered as an essential means of promoting empowerment at producer level and stimulating investment in rural communities.

Figure 41: Fairtrade’s Theory of Change: *Strong and inclusive Smallholder Producer Organizations*

Input	Output	Outcomes	Impacts
<ul style="list-style-type: none"> • Fairtrade standard • Fairtrade Premium • Producer support services 	<ul style="list-style-type: none"> • Organizational strengthening in SPOs • Increased investment in small producers, their organizations and communities 	<ul style="list-style-type: none"> • Strong and inclusive SPOs • Enhanced benefits for small producers and their communities • Increased influence for small producers 	<ul style="list-style-type: none"> • Increased confidence, self-esteem, control and choice • Enhanced influence and status of small producers • Access to basic services • Increased environmental sustainability

As depicted in Figure 41, key interventions from Fairtrade to promote strong and inclusive SPOs include the Fairtrade standard, which contains several criteria related to group management. A key intervention is the disbursement of the Fairtrade Premium for each kilogram of product sold as certified. This Fairtrade Premium is paid by the buyer to the SPO. It can cover the costs of certification and/or be invested in the SPO, members or communities, as decided by the members in a General Assembly meeting. All certificate holders and 73 percent of the certified first degree SPOs have received a Fairtrade Premium in the last 6 years. In 2014, 29 percent of the certificate holders received a Fairtrade Premium and 23 percent of the first degree SPOs.

Another type of intervention is the Producer support services that build capacity of SPO management in various topics. Three-quarters of the certificate holders, or organizations in certification, received organizational support from Fairtrade in 2014 and 9 percent of the certified first degree SPOs.

6.1 Outputs

The relevant output related themes from the Fairtrade ToC for this section are:

- Enhanced democracy, participation and transparency
- Transparent systems for managing Fairtrade Premium
- Participation in Fairtrade networks and governance
- Investments using Fairtrade Premium
- Increased access to working and investment capital

6.1.1 Enhanced democracy, participation and transparency

Conclusion: *Certified SPOs performed slightly better in the timing and quality of their General Assemblies than non-certified SPOs.*

Of the certified SPOs (first and second degree), 87 percent have held their last General Assembly in 2014 or early 2015 (compared with 78 percent of the non-certified SPOs). For the General Assemblies in 2014, 63 percent of the certified SPOs and 53 percent of the non-certified SPOs held them in compliance with the statutes. See also Table 34 for more detailed results.

Table 34: Presentation of the quality of the General Assembly in 2014

Quality of General Assembly in 2014	Certified	Non-certified
(1) No annual General Assembly was held in 2014.	7%	22%
(2) The annual General Assembly was postponed into 2015 for reasons that are more than technically reasonable OR there was a General Assembly with insufficient quorum (invalid General Assembly)	7%	0%
(3) The annual General Assembly took place (even if not recorded/poorly called or recorded) OR postponed for reasonable grounds	23%	22%
(4) The annual General Assemblies took place fully in line with statutes	17%	0%
(5) The annual General Assemblies took place fully in line with statutes AND the General Assembly was given plenty of time to discuss all matters	47%	53%

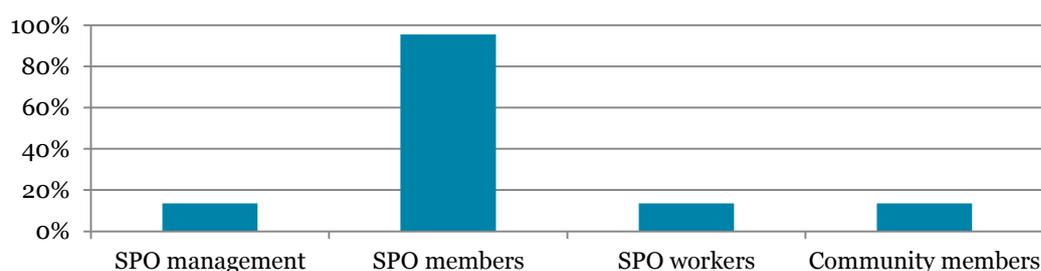
**These categories have been based upon compliance criteria developed by FLO-CERT to determine compliance with the Fairtrade standard. For the purpose of this research, non-certified groups were also surveyed by the research team using the same FLO-CERT compliance criteria.*

6.1.2 Transparent systems for managing Fairtrade Premium

Conclusion: Almost all certified SPOs reported involving their members in the decision about premium use, but less than 50 percent of the farmers felt they knew how the premium was used or could influence that.

As shown in Figure 42 below, of those certified SPOs that received Fairtrade Premium payments in the past six years (73 percent), 95 percent involved their members in decision-making about Premium use. Management and workers were involved in 14 percent of the cases. Community members were also involved in decisions in 14 percent of the organizations.

Figure 42: Share of SPOs involving different stakeholders in the decision on Fairtrade Premium use



The farmer survey revealed that 40 percent of the certified farmers do not know whether or when their SPO received a Fairtrade Premium, and 55 percent knew that their SPO had received their latest Premium in the past six years (11 percent in 2014). Thirty-nine percent knew the value of the latest Premium received. Thirty-five percent always knew what the Premium was used for and 19 percent sometimes knew this.

Table 35: SPO member knowledge and influence on Fairtrade Premium use

Indicators	Reponses		
	No	Sometimes	Yes
Knowledge of Fairtrade Premium value	40%		60%
Knowledge on Fairtrade Premium use	Never	Sometimes	Always
	45%	19%	35%
Who takes the decision	Don't know	SPO management	Members

	50%	5%	45%
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According to 45 percent of the farmers, SPO members took decisions about Premium use (see Table 35). According to 5 percent these decisions were taken by SPO management and 50 percent of the farmers did not know who took the decision. The Fairtrade Standards prescribe that the SPO must include all the activities planned to be funded with the Fairtrade Premium in the Fairtrade Development Plan and before implementing the Fairtrade Development Plan, it must be presented to the General Assembly for approval.

6.1.3 Participation in Fairtrade networks and governance

Conclusion: Certificate holders have met with Fairtrade in 2014.

Almost all certificate holders (seven out of eight) participated in at least one meeting with Fairtrade in 2014 (see Table 36).

Table 36: Share of SPOs participated in Fairtrade meeting in 2014

Certified SPO	%
Certificate holder	88%
First degree	14%

6.1.4 Investments using Fairtrade Premium

Conclusion: Social and environmental oriented projects (co-)financed with the Fairtrade Premium targeted 20,000 community members in 2014. The amount of Premium invested varies highly per organization.

The Fairtrade Premium received has been spent on various types of projects (see Table 37). In total, there have been 46 projects financed by the Premium in recent years with a total value of 43.2 million FCFA (€ 65,900). These projects have reached over 20,000 beneficiaries in 2014 (this could include some double counting of beneficiaries which were reached with more than one project). The total number of children reached with the projects was 1,246, the number of youth (aged 16-24) reached was 400, and the number of women reached was 283.

Table 37: Overview of how the last Fairtrade Premium was spent across certified producer organizations.

Theme	Amount financed by premium (FCFA)	Number of projects	Number of direct beneficiaries
Health services for members	160,000	1	
Training and capacity building SPO	1,400,000	2	472
Facilities and infrastructure	18,147,950	18	11,696
Human resources and administration	2,415,093	2	254
Services to communities	3,765,000	8	6
Education services for communities	75,000	1	61
Health services for communities	75,000	1	1,500
Environmental services for communities	7,729,225	11	6,059
Community infrastructure	9,460,000	2	73
Total	43,227,268	46	20,121

Nine of the projects were co-financed with a total co-finance of 25 million FCFA, representing 73 percent of the total budget of these nine projects. The majority of these projects concerned social and environmental services and development of infrastructure targeting the community. It should be noted that for some SPOs, and notably first degree SPOs, the total Premium invested was very low, which limited the potential impact. For example, the two 75,000 FCFA projects below represent a value of € 115 each. These low amounts were related to the small volumes produced by the group or the weak market uptake of certified cotton. It also depended on internal politics of certificate holders. For example, in Senegal one certificate holder used to keep one third of the Premium and divided two thirds among its first degree member organizations.

6.1.5 Increased access to working and investment capital

Conclusion: *The proportion of certified SPOs that received credit in 2014 was slightly lower than for non-certified SPOs. More than one quarter (28 percent) of the certified SPOs received donor funding (six percent of non-certified SPOs).*

Non-certified SPOs received credit slightly more often in 2014 than non-certified SPOs (47 percent vs. 41 percent). First degree SPOs received credit more often. The certified and non-certified SPOs received credit from similar providers. Certified SPOs indicated that they received credit from their Fairtrade buyers (see also Table 38). Other questions revealed that SPOs generally did not know their Fairtrade buyers (see chapter 5). It is likely that umbrella organizations or cotton companies were included in the 42 percent of certified SPOs that indicated receiving credit from their Fairtrade buyers. As the survey did not include a question on whether organizations applied for credit, the table below does not allow us to determine the actual access to finance for SPOs.

Table 38: SPO access to finance

	Certified	Non-certified
Received credit in 2014	41%	47%
Credit provider for those receiving credit		
(1) Fairtrade buyers (pre-finance)	42%	n/a
(2) Non-Fairtrade buyers	0%	63%
(3) Ethical banks or micro-finance institutions	25%	38%
(4) Conventional banks and institutions	33%	25%
(5) Producer organization	8%	13%
Donor funding received in 2014	28%	6%

As shown in Table 39, nine certified SPOs received donor funding in 2014 and one non-certified SPO (28 percent vs. 6 percent). The certified SPOs spent donor funding on:

- Promotion of agronomic practices (input distribution, support on good practices and other services): six SPOs
- Transformation (value adding): one SPO
- Organization development of SPO: one SPO
- Community services and social infrastructure: two SPOs

The non-certified SPO used the funding for an environmental project.

The data on the amount of subsidies received was not complete and reported values varied between the 250,000 FCFA and 5,000 million FCFA.

6.2 Outcomes

The relevant outcome related themes from the Fairtrade ToC for this section are:

- Increased profitability, reduced risk for SPOs and members
- Strong and accountable leadership
- Inclusion of young adults in SPOs
- Gender equality
- Improved labor conditions for workers
- Implementation of climate change adaptation strategies
- Improved services and support for SPO members
- Improved services and infrastructure in small producer communities
- Support for vulnerable and marginalized groups
- Ability to influence Fairtrade policies and regulations
- Ability to influence local, regional and international policy

6.2.1 Increased profitability, reduced risk for SPOs

Conclusion: *Certified SPOs had a positive financial result more often than non-certified SPOs.*

As shown in Table 39 a slightly higher proportion of certified SPOs had realized a positive financial result in the last three years than non-certified SPOs. This included all activities, including non-cotton related.

Table 39: Percentage of SPOs with a positive annual financial balance (data from Mali was not collected)

	2012	2013	2014
Certified	83%	52%	52%
Non-certified	67%	42%	50%

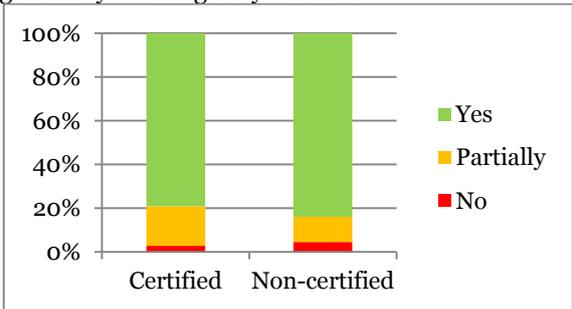
6.2.2 Strong, accountable leadership

Conclusion: *Approximately 80 percent of the certified and non-certified farmers perceived their SPOs to be working in their best interests and able to convey their ideas and concerns to SPO management.*

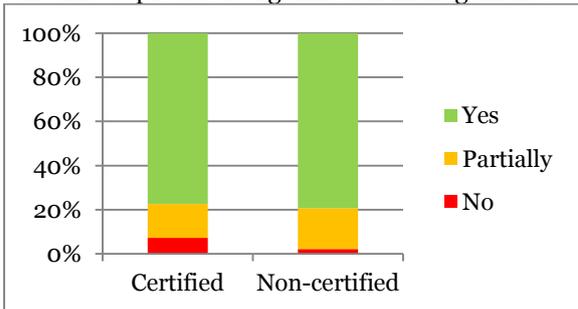
Certified and non-certified farmers were comparable in their perceptions of their SPOs to be working in their best interests; approximately 80 percent in both groups (see Figure 43). Slightly more certified farmers than non-certified farmers were not able to convey their ideas to the SPO management (seven percent vs. two percent).

Figure 43: Perception of whether SPOs considered best interest of farmers

Do you believe that your producer organization is genuinely working for your interest?



Do you feel that you are able to convey your ideas or concerns to producer organization management?



6.2.3 Inclusion of young adults in SPOs and gender equality

Conclusion: Certified SPOs had a gender policy or strategy in place more often than non-certified SPOs. Certified SPOs had more women in their governance and non-certified SPOs had more youth.

Certified SPOs performed better in terms of gender policy or strategy than non-certified SPOs (see Table 40). Some organizations had 3 or 4 activities in place. By contrast, 40 percent of certified SPOs still did not have any specific gender policy or gender strategy in place.

Table 40: Gender policy and strategy

Question	Responses	Certified	Non-certified
Do you have a gender policy and or strategy?	(1) Quota for committee or board members?	43%	18%
	(2) Training specifically targeting women	27%	12%
	(3) Training addressing gender issues	23%	6%
	(4) Loans or targeting women	7%	12%
	(5) Gender quota for meetings	3%	0%
	Nothing	40%	76%

A closer look at the composition of governance structures of the SPOs showed that certified SPOs were more inclusive of women and that non-certified SPOs were slightly more inclusive of young adults between 16 and 25 years. Note that not all SPOs recorded gender and age in the participant list of their General Assembly and that some of these figures were based on estimates. See also Table 41 for more details.

Table 41: Percentage of women and young adults (age 16 - 25) in different SPO bodies

		Certified	Non-certified	Count
Board	Women	25%	5%	46
	Young adults	4%	10%	46
Committees	Women	27%	5%	25
	Young adults	7%	4%	25
Management and staff	Women	20%	20%	13
	Young adults	2%	26%	13
Participants in General Assembly	Women	23%	15%	31
	Young adults	7%	2%	28

6.2.4 Improved labor conditions for workers

Conclusion: Certified SPOs had paid workers more often than control SPOs. Amongst certified SPOs, salaries increased in 50 percent of the cases and decreased in 30 percent of the cases over the last three years.

One-third of the certified SPOs had paid workers; 63 percent of the certificate holders and 23 percent of the first degree organizations. The average number of workers per certified SPO was 27, but this is data from just six SPOs as we did not obtain data for four of them (see Table 42). The number of workers at first degree organizations varied between one and nine and that of certificate holders between 25 and 89. Forty percent of the ten certified SPOs experienced an increase in workforce in the last three years. Salaries over the last three years increased within 50 percent of these SPOs and decreased in 30 percent. The survey included only two non-certified SPOs with a paid workforce.

Table 42: Employment at SPOs

	Response	Certified	Non-certified
Do you have paid workers?	Yes (% and count)	33% (10)	12% (2)
Average number of workers	Number	27	n.a
How did the number of paid workers develop in the last 3 years	Decrease	-	-
	Stable	60%	100%
	Increase	40%	-
How did the salaries of paid workers develop in the last three years?	Decrease	30%	100%
	Stable	20%	-
	Increase	50%	-

6.2.5 Implementation of climate change adaptation strategies

Conclusion: *Certified SPOs were more active on the issue of climate change than non-certified SPOs.*

Compared to the non-certified group, relatively more certified SPOs had analyzed climate change risks and implement adaptation strategies with members (see Table 43).

Table 43: Climate change strategies at SPO level

	Certified	Non-certified
Conducted an analysis of risks associated with climate change	63%	59%
Implements a climate adaptation strategy with members	53%	35%

6.2.6 Improved services, support and infrastructure for SPO members and communities

Conclusion: *At least half of the certificate holders had some activities in farm input delivery, agricultural credit provision, income diversification or marketing.*

Chapter 4 showed that certified SPOs performed better than non-certified SPOs in organizing agriculture related training and in providing technical assistance to their members. SPOs also delivered other services. When certified SPOs were asked which services they provided that were not funded by Premium, they responded: providing access to crop protection products, planting material and credit (see also Table 44). Unfortunately, no data was collected on the performance of non-certified SPOs on this indicator.

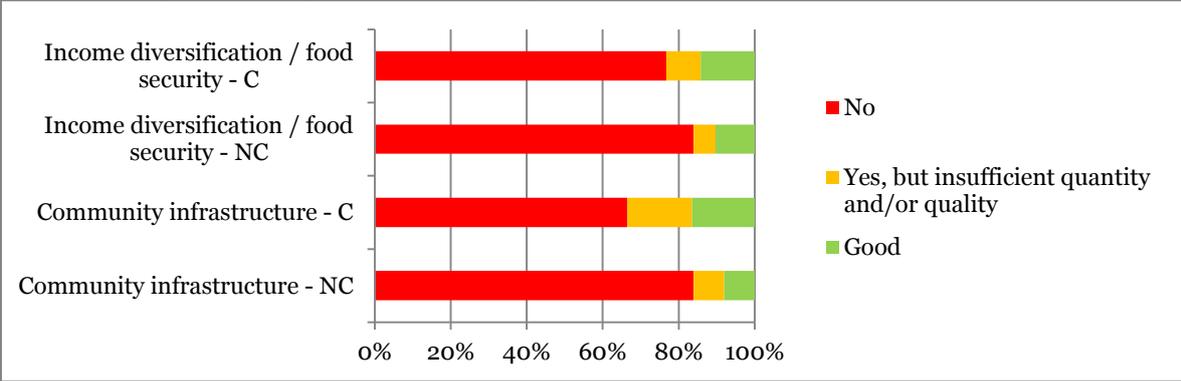
Table 44: Percentage of SPOs providing different services

Services	Certified (1 st degree)	Certificate holder
Access to crop protection products or equipment	95%	88%
Access to planting material	55%	88%
Distribution of PPE	18%	38%
Access to credit for agricultural activities	55%	63%
Access to credit for non-agricultural activities	-	-
Community services and infrastructure	14%	39%
Income diversification and/or food security support	14%	63%
Support in sales	9%	63%

Chapter 4 discusses some agricultural related service delivery from a farmer perspective. Figures for certified and non-certified farmers were comparable. It is not clear to what extent the agricultural credit services included or excluded the input of credit programs organized at sector level. SPOs generally have a facilitating role in these programs.

Approximately 20 percent of the farmers reported receiving services from their SPO for income diversification (see Figure 44) and creation of community infrastructure. Non-certified farmers had slightly higher access to community infrastructure services from their SPO.

Figure 44: Farmer access to SPO service provision on income diversification/food security and community infrastructure (C = certified, NC = non-certified)



6.2.7 Support for vulnerable and marginalized groups

Conclusion: Between one-quarter and one-third of certified SPOs had projects targeting children, youth and women.

First degree certified SPOs reported projects financed by the Fairtrade Premium benefiting women, youth and children. Approximately one third of the SPOs had such projects benefiting children and approximately one-quarter had projects benefitting youth and women (see Table 45). These projects have reached approximately 1,900 beneficiaries.

Table 45 Overview of SPO projects targeting vulnerable and marginalized groups

	Children	Youth (16-24)	Women
Share of total SPOs (count)	32% (7)	23% (6)	(23% (6)
Total beneficiaries	1264	400	283
Average per project	156	80	75

6.2.8 Ability to influence Fairtrade policies and regulations and ability to influence local, regional and international policy

Conclusion: Both certified and non-certified SPOs felt they had limited or no influence on local, regional or international policies. Influence on Fairtrade policies was considered weak.

One certificate holder perceived having strong influence on the Fairtrade system and one certificate holder and one first degree organization perceived a medium influence. The remainder felt they had no influence (see Table 46). Certificate holders saw more influence through Fairtrade on local, regional and international policies; one saw strong influence, three medium and two saw weak influence. First degree organizations

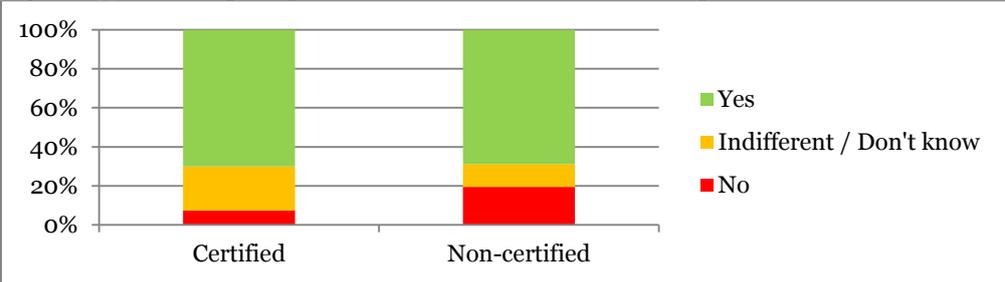
did not perceive any influence at all through Fairtrade on policy, nor outside Fairtrade. Non-certified SPOs felt they had no influence on local, regional or international policy.

Table 46: SPO perception on the ability to influence local, regional, international policy and Fairtrade

Indicator	SPO level	Responses			
		None	Weak	Medium	Strong
		Certified			
Influence on policy and regulation within Fairtrade	1 st degree	95%	0%	5%	0%
	Certificate holder	71%	0%	14%	14%
Influence on local, regional and international policy through Fairtrade	1 st degree	81%	19%	0%	0%
	Certificate holder	14%	29%	43%	14%
Influence on local, regional and international policy outside Fairtrade	1 st degree	86%	14%	0%	0%
	Certificate holder	25%	25%	38%	13%
		Non-certified			
	1 st degree	100%	0%	0%	0%
	Certificate holder	100%	0%	0%	0%

About 70% of the certified farmers reported that since joining Fairtrade, their community is more able to plan and advocate for their development, while seven percent reported no changes (see Figure 45). This may indicate that certification does have community impacts. However, 70 percent of the non-certified farmers also reported that their community improved its ability to plan and advocate for their development. As these non-certified farmers were living in other communities it is not clear whether the observed changes at community level can be linked to Fairtrade or other external factors.

Figure 45: Farmer perception on the ability of community to plan and advocate for their development



6.3 Impact

The relevant outcome related themes from the Fairtrade ToC for this section are:

- Improved household income, assets and standard of living and improved access to basic services
- Increased cooperation and gender equity within communities
- Increased confidence, self-esteem, control and choice

6.3.1 Improved household income, assets and standard of living and improved access to basic services

Conclusion: Certified and non-certified farmers in Senegal were equally poor, while in Burkina Faso and Mali certified farmers were poorer than non-certified farmers (based upon the Progress out of Poverty Index). Among certified and non-certified farmers, women were poorer than men. Compared to non-certified farmers, certified farmers had: better access to clean drinking sources, comparable school enrollment figures, comparable energy sources for lighting and comparable access to health services.

The Progress out of Poverty Index (PPI) is a poverty measurement tool: the answers to ten questions covering a household’s characteristics and asset ownership are scored to compute the likelihood that the household is living below the poverty line – or above it by only a narrow margin. The PPI scores can be set against national or international poverty lines. One cannot compare PPI scores of individual countries as each country has its own PPI categories, but they can be set against an international poverty headcount ratio (PPP – a method that counts the number of people above or below the poverty line). Table 47 provides an overview of each country’s PPI scores analyzed by gender and certification status.

The average PPI score for Senegal was 18. Certified farmers had a slightly higher PPI score than non-certified farmers. Female farmers had a lower score for both groups. Both certified and non-certified farmers (female and male) fell into the same PPI category with a 58.6 percent probability that the average farmer within this group lived below the national poverty line and a 33.5 percent probability that they live below the \$1.25/day 2005 PPP Line.

The average PPI score for Burkina Faso was 33. Non-certified farmers have a higher average PPI score than certified farmers indicating there was a lower probability they lived below the national poverty line. Female farmers (both certified and non-certified) had a higher PPI score than male farmers. The difference was more pronounced for non-certified farmers. Based on the PPI scorecard in Burkina Faso, certified farmers (both female and male) had a 20.7 percent chance of being below the national poverty line and a 33.6 percent of living below the \$1.25/day 2005 PPP Line. Among non-certified farmers, men had a 17.0 percent probability and women a 14.4 percent probability of living below the national poverty line and the probability they live below the \$1.25/day 2005 PPP Line was 30.1 percent and 25.6 percent respectively.

The average PPI score for Mali was 46.1. Non-certified farmers had a higher average PPI score than certified farmers. Female farmers (both certified and non-certified) had a higher PPI score higher than male farmers. The difference was more pronounced for non-certified farmers. Based on the PPI scorecard in Mali, certified women and non-certified men a 63.9 percent chance of being below the national poverty line and 49.5 percent of living below the \$1.25/day 2005 PPP Line. Male certified farmers had a 76.4 percent chance of being below the national poverty line and a 32.0 percent probability of living below the \$1.25/day 2005 PPP Line. Finally, female non-certified farmers had on average the lowest poverty level in Mali with a 47.4 percent chance of living below the national poverty line and 32.0 percent below the \$1.25/day 2005 PPP Line.

These figures showed that in Senegal the PPI index was comparable for certified and non-certified farmers, while in Burkina Faso and Mali non-certified farmers had a higher PPI score than certified farmers- i.e. were less poor. The index showed that farmers in Mali are relatively the poorest of the three countries. Women had higher poverty levels (lower PPI score) than men.

Table 47: Progress out of Poverty Index Scores (probability of living below national poverty lines)

PPI Score	Certified		Non-certified		Average
	Female	Male	Female	Male	
Senegal	17.4 (58.6%)	19.2 (58.6%)	15.8 (58.6%)	17.6 (58.6%)	18
Burkina Faso	33.6 (20.7%)	30.2 (20.7%)	43.7 (14.4%)	34.7 (17.0%)	33
Mali	46.3 (63.9%)	44.3 (76.4%)	54.9 (47.4%)	46.2 (63.9%)	46.1

Table 48: Probability farmers live below the \$1.25/day 2005 PPP Line.

PPI Score	Certified		Non-certified	
	Female	Male	Female	Male
Senegal	33.5%	33.5%	33.5%	33.5%
Burkina Faso	36.9%	36.9%	25.6%	30.1%
Mali	49.5%	67.5%	32.0%	49.5%

Certified farmers had significantly better access to clean drinking sources than non-certified farmers, although still 60 percent still use surface water or non-modern or drilled wells (see Table 49). Women had slightly better access than men (both certified and non-certified).

Table 49: Main source of drinking water

	Certified			Non-certified		
	Female	Male	Total	Female	Male	Total
Surface water, non-modern well, drilled well	55%	62%	60%	76%	80%	79%
Modern well	17%	17%	17%	14%	9%	10%
Public tap	25%	15%	18%	5%	9%	8%
Private tap	3%	6%	5%	5%	2%	2%

The energy sources for lighting for certified and non-certified farmers were comparable. Approximately 20 percent had access to electricity or solar energy, around 5 percent used fuel wood as the main source. The most important energy source was (car) batteries (see Table 50).

Table 50: Main source of energy for lightning

	Certified			Non-certified		
	Female	Male	Total	Female	Male	Total
Fuel wood	10%	5%	7%	5%	5%	5%
Candles, petrol or gas	3%	3%	3%	0%	2%	1%
Torch on battery	69%	72%	71%	71%	76%	75%
Electricity or solar energy	17%	21%	19%	24%	18%	20%

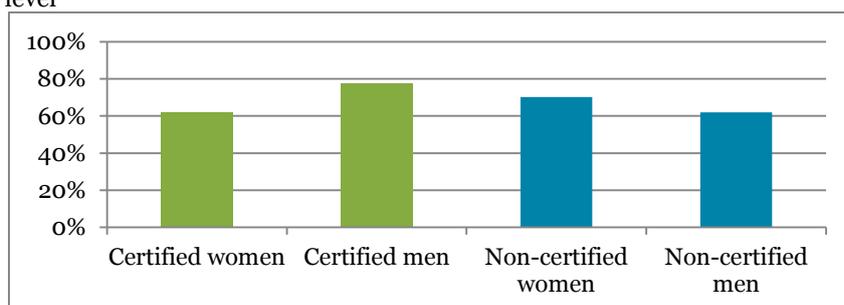
Non-certified farmers more frequently had good access to health services than certified farmers (see Table 51). However, this difference was not significant. Women had more difficulty paying for health services than men (both certified and non-certified).

Table 51: Access to health services

	Certified			Non-certified		
	Female	Male	Total	Female	Male	Total
Not at all	0%	1%	1%	0%	0%	0%
Some, but distance is too far	33%	34%	34%	29%	27%	28%
Some, but I cannot pay for it	18%	9%	12%	19%	9%	11%
Some, but quality is too low	15%	3%	7%	5%	8%	7%
Yes	33%	53%	46%	48%	56%	54%

School enrolment of children under 12 years of certified and non-certified farmers was comparable (71 percent vs. 73 percent, Figure 47). Male respondents had more positive responses than female respondents (76 percent vs. 65 percent).

Figure 46: Percentage of households with all children under 12 years going to school at appropriate grade level

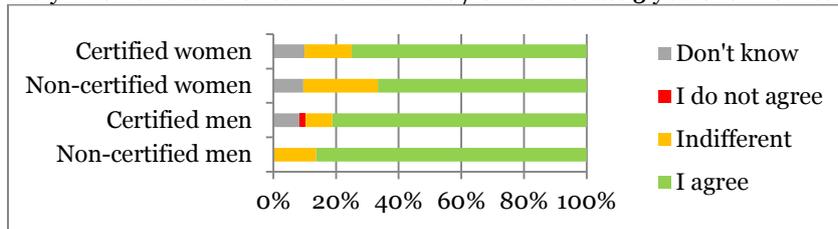


6.3.2 Increased cooperation and gender equality within communities

Conclusion: Approximately three-quarters of the certified farmers perceived improved cooperation in the community and improved gender equality at household level since entering Fairtrade. The proportion of non-certified farmers with a similar development in the past three years did not differ greatly.

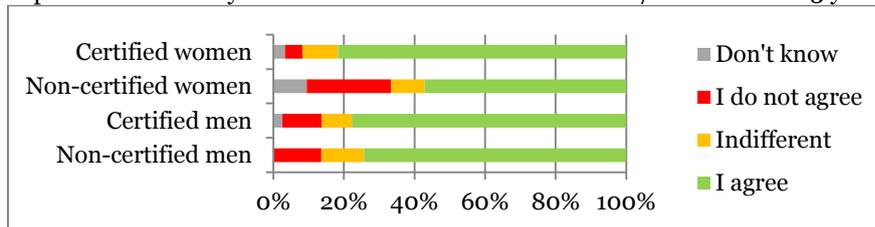
Three-quarters of the certified farmers perceived an increased level of cooperation in the community since joining Fairtrade. Eighty-two percent of the non-certified farmers felt that cooperation levels had improved in the last three years (Figure 47).

Figure 47: Farmer perception on whether the levels of cooperation had increased in the community since entry into Fairtrade for certified farmers / since the last 3 years for non-certified farmers



Seventy-nine percent of the certified farmers saw that the decision-making power of women had improved (82 percent of the certified women confirmed this; see Figure 48). Among non-certified farmers a lower proportion saw this (70 percent in total and 57 percent of women).

Figure 48: Farmer perception on whether the decision-making power of women in household has improved since entry into Fairtrade for certified farmers / since the last 3 years for non-certified farmers

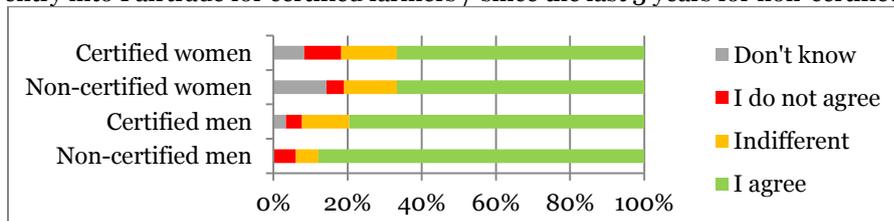


6.3.3 Increased confidence, self-esteem, control and choice

Conclusion: Three-quarters of the certified farmers perceived improved self-confidence since entering Fairtrade. Slightly more non-certified farmers (83%) felt the same in the past three years.

The majority of both certified men and women believed their self confidence and social prestige had increased since they entered into Fairtrade. Men were more positive than women. At least the same number of non-certified farmers, men and women, believed that their self-esteem and social prestige had increased in the past three years (see Figure 49).

Figure 49: Farmer perception on whether their self confidence and social prestige has increased since entry into Fairtrade for certified farmers / since the last 3 years for non-certified farmers



7. Benefits of Fairtrade

The survey asked farmers and SPOs whether they were satisfied with Fairtrade and to identify the main benefits of Fairtrade.

7.1.1 Benefits to farmers

Conclusion: Three-quarters of the certified farmers reported that they were satisfied with Fairtrade. The main benefits were Fairtrade Premium and improved group cohesion. Non-certified farmers who were aware of Fairtrade were generally interested to become part of it.

Figure 51 shows to what extent farmers were satisfied with the benefits associated with Fairtrade. Approximately three-quarters of the farmers were satisfied with Fairtrade and 13 percent were dissatisfied. Satisfaction levels were higher among Fairtrade-Organic farmers than Fairtrade (only) farmers (85 percent vs. 63 percent). The highest satisfaction levels were in Burkina (98 percent), followed by Senegal (67 percent) and Mali (53 percent). Women were slightly more satisfied than men (78 percent vs. 74 percent). In the survey we asked non-certified farmers if they knew of Fairtrade. Approximately 41 percent of them knew of Fairtrade and of these 91 percent were interested in participation (see Figure 52).

Figure 50: Level of satisfaction with Fairtrade by certified farmers

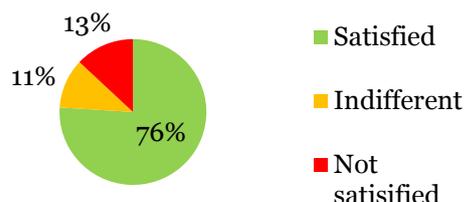
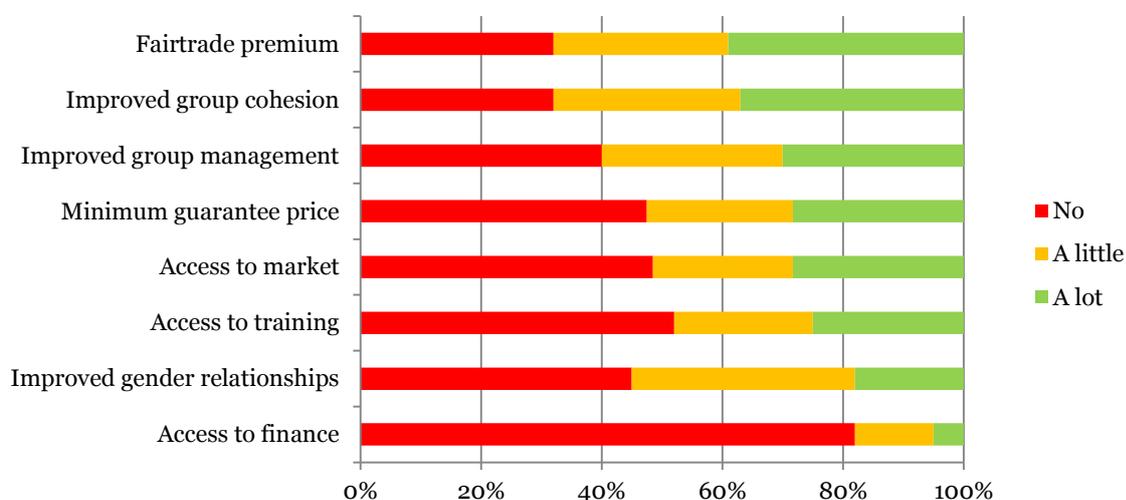


Figure 51: Awareness and interest among non-certified farmers

	Yes
Do you know Fairtrade?	41%
If you know it, do you want to become part of it?	91%

When certified smallholders were asked about the main advantages of Fairtrade, 39 percent referred to the Fairtrade Premium and 37 percent to improved group cohesion. Between 25 percent and 30 percent mentioned improved group management, minimum guarantee price and market access (Figure 52). Over half of the farmers did not perceive access to finance, access to training, access to markets and the minimum guarantee price as benefits of Fairtrade.

Figure 52: Main benefits of Fairtrade to certified farmers



7.1.2 Benefits at SPO level

Conclusion: Of the certified SPOs, 65 percent reported that they were satisfied with Fairtrade, with as main benefits the Fairtrade Premium and the Fairtrade Minimum Price.

Approximately two thirds of the certified SPOs were satisfied with Fairtrade and 19 percent is dissatisfied (Figure 53). More than half of the SPOs highly valued the Fairtrade Premium and the Fairtrade Minimum Price. Potential benefits which were less valued were improved access to liaison officers, access to finance and access to markets (see Figure 54). This suggests that either they did not perceive these benefits, they found them less important or they did not relate the received benefits to Fairtrade. Unfortunately, the survey did not go into the reasons.

Figure 53: Level of satisfaction with Fairtrade by certified SPOs

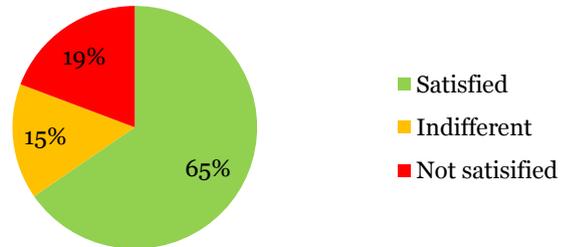
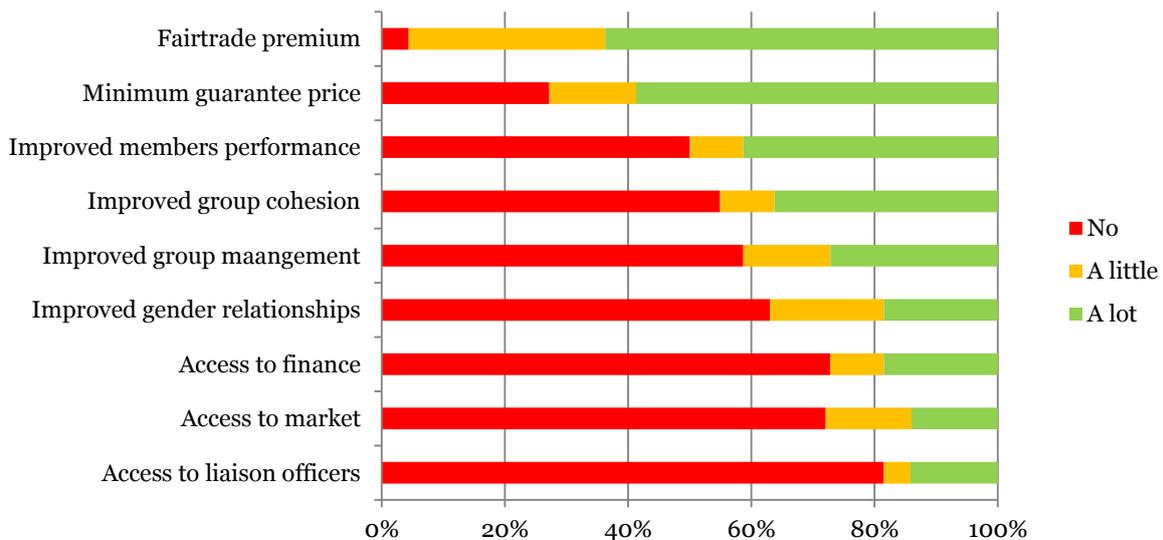


Figure 54: Main benefits of Fairtrade to certified SPOs



8. Conclusions and recommendations

Certified farmers and SPOs outperform non-certified farmers and SPOs on several dimensions (e.g. gender, child rights, anti-erosion practices, access to training, investments in social projects, and activities on climate change adaptation). On some dimensions performance was similar (e.g. water use, chemical fertilizer and pesticide use (excluding Fairtrade-Organic), SPO service provision of inputs). Fairtrade managed to reach out to poorer farmers. It was not possible to determine what impact Fairtrade had on poverty levels as the poverty level at the moment of certification was unknown. This study was a baseline. The intended follow-up study will measure progress of Fairtrade farmers versus counterfactual farmers and Fairtrade's contribution.

The study findings suggest the following recommendations for Fairtrade.

1. *Promote market uptake of Fairtrade certified cotton*

Market access is an issue. The ability to sell certified cotton at Fairtrade conditions is an important condition for success and much of the negative feedback the survey team received during the data collection was related to the lack of market access. In order to continue and scale up Fairtrade certification in the West-African cotton sector, producers require sustained access to Fairtrade markets. Possibly Fairtrade should intensify its efforts.

2. *Analyze how the institutional context of the West African cotton sectors promotes or blocks the promotion of Fairtrade*

The high degree of sector organization in the three countries influences how Fairtrade can be implemented in these sectors and what benefits can be expected. For example, there is an issue in the creation of transparent supply chains. Marketing of cotton is organized by cotton companies, which prevents direct trade relationships between producers and buyers. This baseline study shows that this hinders transparency in, for example, market information. One could also argue that these highly organized sectors manage to reach out to almost all farmers with inputs in credit, technical assistance and that they offer guaranteed market access at prices fixed annually. Compared to other less organized sectors, there are considerably fewer issues with regards to access to inputs, quality of produce and market access. While this provides farmers with important benefits, it reduces possible alternatives. For example, top-down provision of technology packages may reduce the ability of farmer organizations to develop their own fertilizer management regimes – better adapted to the local context. The extent to which the high degree of sector organization hinders or supports the promotion of Fairtrade values, principles and systems was difficult to capture in this study. We recommend conducting a deeper analysis into sector and market governance models of the three countries to identify constraints and opportunities in promoting Fairtrade. This analysis should also investigate how improved collaboration with the cotton companies can potentially promote sector-wide implementation of Fairtrade values, principles and systems.

3. *Further support SPOs in quality service delivery to their members*

Although certified SPOs performed better than non-certified SPOs on training and other service delivery, there is significant room for improvement. The number of farmers with adequate access to training on a variety of important topics was relatively low in 2014. Most SPOs lacked a structured approach to promote farmer performance and the resources to implement such an approach. As training and regular assistance – often in combination with access to inputs – is so important, Fairtrade should intensify its support in this area. This does not necessarily have to focus only on cotton cultivation. It can – recognizing the importance of diversified farming systems – also target other farm activities and more basic skills such as literacy training or financial management.

4. Clarify and communicate the business case of Fairtrade certification

This research included several elements that are part of the business case for both farmers and SPOs to choose Fairtrade certification. Fairtrade could do additional work to clarify this business case of Fairtrade certification at farm, SPO and sector levels. This would not require a large-scale survey, but rather a more in-depth analysis of costs and benefits on a small sample of farmers. In addition to the financial benefits, such a study could also include the social benefits of Fairtrade certification. For example, the certified farmers in this survey appreciated the improved group cohesion as a result of Fairtrade certification. The outcomes could help to promote the adoption of Fairtrade and to identify interventions that could further strengthen the business case. They could also help to create further buy-in from the cotton companies and their respective governments which is crucial due to their dominant role in the sector.

5. Use of mixed methods to get more insights in attribution

Fairtrade's Theory of Change was too comprehensive for us to include all topics and indicators in the survey. Nor was there a rationale to prioritize them when we started this research. During the finalization of this report, Fairtrade started developing specific impact pathways which should allow for prioritization of indicators. This will also facilitate the attribution analysis of Fairtrade interventions. The impact pathways are a good opportunity to include interests of different stakeholders, including final buyers (who generally emphasize environmental aspects). For any future research, the attribution analysis could be further enhanced by a phased use of quantitative and qualitative data collection methods. One option is to use a phased approach in which for example focus group discussions are organized after the data of the farmer surveys have been analyzed as a means to validate and identify explanations of key results. This allows for a more focused discussion when validating findings from the surveys or clarifying open topics. In order to validate the most applicable impact pathways, one could also reverse that order and use focus group discussions as the basis for designing the quantitative surveys.

6. Use alternative methods to collect metrics or key performance indicators

Finally, some of the indicators require detailed information on quantities used, costs and benefits. This baseline survey revealed that record-keeping practices generally were poor to medium. If Fairtrade wishes to continue collecting this data on a large scale, more support will be needed at SPO and farm level. Fairtrade could also consider different methods to collect such data. Examples are life-cycle analysis, footprint calculation or the above-mentioned business case identification. Applying such methods on sub-samples of farmers could result in better and more complete data than trying to collect information via farmer surveys which also attempt to collect data on a large number of other indicators.

Appendix I: Industry indicators

Table 53 provides an overview of some cultivation parameters for Fairtrade cotton farmers in West Africa and Cotton Made in Africa (CmiA).¹⁴ Fairtrade parameters are based on averages of the Fairtrade (only) farmers in this baseline study in Senegal, Burkina Faso and Mali. CmiA parameters are based on averages of CmiA cotton farmers in Benin, Burkina Faso, Ivory Coast, Malawi, Mozambique, Zambia and Cameroon. The methodologies used by the studies are different.

Table 52: Cultivation figures

Cultivation	Unit	Fairtrade farmers in this study	CmiA Africa
Yield (seed cotton)	kg/ha	986	967
NPK fertilizer (N=15, P=15, K=15,)	kg/ha	Not applicable	102.8
NPK fertilizer (14/18/18 & 14/23/14)	kg/ha	186.4	Not available
Organic fertilizer	kg/ha	150	145.7
Share of blue water	Rate	0%	10%

Table 54 provides an overview of ginning parameters. Data for Senegal was provided by SODIFITEX (March 2015), these are national averages. Data for CmiA is from the same Aid By Trade Foundation (2012) publication as table 53.

Table 53: Ginning figures

Ginning	Unit	Senegal	CmiA Africa (average)
Transport distance (seed cotton)	km	58.7	51.5
Grid electricity	kwh/kg lint	0.12	0.089
Natural gas	kwh/kg lint	0,009	No data
Diesel	kwh/kg lint	0,12	No data
Hydropower	kwh/kg lint	0	No data
Water withdrawal for ginning	m3/kg lint	0,00019	No data
Packaging use (Bales)	kg/kg lint	0,013	No data
Solid waste	kg/kg lint	0,07	No data

Table 55 shows the rainfall pattern in the countries included in the study. Cotton cultivation is rain-fed.

Table 54: Rainfall figures cotton zones

Country	Rainfall mm/yr
Senegal	800 -1000
Burkina Faso	700 -800
Mali	1000-1100

¹⁴ Nill, M., and Wick, K. (2013) The Carbon and Water Footprint of Cotton made in Africa. Systain, commissioned by Aid by Trade Foundation

Appendix II: Questionnaires

Farmer survey Questionnaire

55. Questionnaire id	
1. Questionnaire number	
2. Enumerator code	
3. Date of interview	Day: ___ Month: ___ Year: _____

2. Location	
4. Country	
5. Region	
6. Cercle	
7. District or commune	
8. Village	

3. Producer organization	
9. Name third grade organization	
10. Name second grade organization	
11. Name first grade organization	

4. Producer profile	
12. What is your full name? first name, then family name in capitals	
13. Gender	O (1) Female - O (1) Male
14. What is your age in years?	[_____] years
15. What is your marital status?	O (1) Married O (2) Single O (3) Divorced O (4) Widow(er)
16. Can you read and write?	O (o) No O (1) Read and write in French O (2) Read and write in other language
17. What is your education level?	Number of years up to BAC: [_____] years Number of years as off BAC: [_____] years

5. Family composition	
18. How many adults (>18) are living in the household?	[_____] # women / [_____] # men
19. How many children (< 18 years?) are living on the farm?	[_____] # girls / [_____] # boys
20. How many people living outside the household depend (partly or in whole) on your household income?	[_____] #

6. Certification				
21. Do you have any of the following certifications? State year in which certification was first achieved				
(1) Equitable	O (o) No	O (1) Yes, since : [_____]	O (2) Yes, but don't know, *since : [_____]	O (3) in process to become » [_____]
(2) Organic	O (o) No	O (1) Yes, since : [_____]	O (2) Yes, but don't know when, *since : [_____]	O (3) in process to become » [_____]

		[]	[]	[]
(3) Initiative Better Cotton (BCI)	O (o) No	O (1) Yes, since : []	O (2) Yes, but don't know,*since : []	O (3) in process to become » []
(4) Others, name :	O (o) No	O (1) Yes, since : []	O (2) Yes, but don't know,*since : []	O (3) in process to become » []
22. Have you ever been decertified ?				
(1) Equitable	O (o) No	O (1)Yes (a) 1 st certificate : [] (b)Decertified : []	O (2) Yes, but don't know when* (a) 1 st certificate : [] (b) Decertified : []	
(2) Organic	O (o) No	O (1)Yes (a) 1 st certificate : [] (b)Decertified : []	O (2) Yes, but don't know when* (a) 1 st certificate : [] (b) Decertified : []	
(3) Initiative Better Cotton (BCI)	O (o) No	O (1)Yes (a) 1 st certificate : [] (b)Decertified : []	O (2) Yes, but don't know when* (a) 1 st certificate : [] (b) Decertified : []	
(4) Others, name :	O (o) No	O (1)Yes (a) 1 st certificate : [] (b)Decertified : []	O (2) Yes, but don't know when* (a) 1 st certificate : [] (b) Decertified : []	

7. Land ownership	
23. In what year did you start to cultivate cotton?	[] yr
24. What was the previous land use?	O (1) Agricultural land O (2) Bush O (3) Primary forest O (4) Other, specify:
25. Total area of land suitable for agriculture owned (in hectare)	[] ha
26. Type of land ownership	O (1) Formal land title O (2) Customary land title O (3) Communal land O (4) Land rented/ leased
27. Total area this year cultivated by farmer (2013/14) - all crops	[] ha

8. Seed cotton production	
28. Record keeping : do you have records of production, sale, income and inputs, etc.	O (o) No

			O (1) Partially O (2) Yes
Coton graine	29. Hectare (2013/14)	30. Harvest (2013/14)	31. Amount sold (2013/14)
(1) Conventional	[] ha O (-99) NA	[] kg O (-99) NA	[] kg O (-99) NA
(2) Fairtrade	[] ha O (-99) NA	[] kg O (-99) NA	O (1) as Fairtrade [] kg O (-88) Don't know O (-99) NA
(3) Organic	[] ha O (-99) NA	[] kg O (-99) NA	O (1) As Fairtrade [] kg O (2) Sold as conventional [] kg O (-88) Don't know O (-99) NA
(4) Bio-Equitable	[] ha O (-99) NA	[] kg O (-99) NA	O (1) As Fairtrade [] kg O (2) Sold as conventional [] kg O (-88) Don't know O (-99) NA
32. Quality grade of seed cotton sold		O (1) first grade [] kg O (2) second grade [] kg O (3) third grade [] kg O (-88) Don't know	

9. Cotton sales (last season)		
	33. Price received	34. Cash premium received
(1) Seed cotton (Conventional)	[] FCFA/kg O (-99) Not applicable	
(2) Seed cotton (only Fairtrade)	[] FCFA/kg O (-99) Not applicable	[] FCFA/kg O (-88) Don't know O (-99) Not applicable
(3) Seed cotton (only Organic)	[] FCFA/kg O (-99) Not applicable	[] FCFA/kg O (-88) Don't know O (-99) Not applicable
(4) Seed cotton (Fairtrade & Organic)	[] FCFA/kg O (-99) Not applicable	[] FCFA/kg O (-88) Don't know O (-99) Not applicable

10. Premium	
<i>Not applicable for counterfactuals</i>	
35. When did your SPO receive the last premium?	[] Year
36. Do you know how much premium has been received by the SPO	[] FCFA O (88) Don't know

37. Do you know what is done with it?	O (0) No O (1) Sometimes O (1) Yes
38. Who makes the decisions about the premium use?	O (0) Management O (1) Members/ General Assembly O (88) Don't know

11. Income			
39. Production costs (2013/2014)*	Conventional (FCFA)	As Fairtrade (FCFA)	O (-88) Don't know
(1) Inputs	[]	[]	
(2) Rent (equipment)	[]	[]	
(3) Rent (land)	[]	[]	
(4) Salary labour	[]	[]	
(5) Others	[]	[]	
40. Has your income/profitability from cotton production changed in the last 3 years?	<u>Conventional</u> O (0) Decrease O (1) Stable O (2) Increase O (88) Don't know O (-99) NA	<u>Fairtrade</u> O (0) Decrease O (1) Stable O (2) Increase O (88) Don't know O (-99) NA	
41. What is your satisfaction on the profitability of cotton?	<u>Conventional</u> O (1) Not satisfied O (2) Indifferent O (3) Satisfied O (-99) NA	<u>Fairtrade</u> O (1) Not satisfied O (2) Indifferent O (3) Satisfied O (-99) NA	
42. What is the estimated percentage contribution of cotton to the total <u>net</u> household income (including farm and non-farm sources of income)?	O (1) 1% - 25% O (2) 26% - 50% O (3) 51% - 75% O (4) 76% - 99% O (5) 100%		
43. If you have other income sources, which of the following income earning activities do you engage in:			
(1) Production of crops	O (0) No - O (1) Yes		O (-99) NA
(2) Livestock	O (0) No - O (1) Yes		
(3) Agricultural wage labour	O (0) No - O (1) Yes		
(4) Trading (buying and selling)	O (0) No - O (1) Yes		
(5) Firewood/charcoal production	O (0) No - O (1) Yes		
(6) Crafts (produce and sell)	O (0) No - O (1) Yes		
(7) Non- farm wage labour	O (0) No - O (1) Yes		
(8) Remittances	O (0) No - O (1) Yes		
(9) Other	O (0) No - O (1) Yes		

12. Labour input (for cotton)			
44. How many household members work on the farm?	[] # women (>18 ans) [] # men (>18 ans) [] # children (<18 ans)		
45. Involvement of household members in the farm activities	Women (>18 ans)	Men (>18 ans)	Children (<18 ans)
(1) Land preparation	O (0) No - O (1) Yes	O (0) No - O (1) Yes	O (0) No - O (1) Yes
(2) Sowing	O (0) No - O (1) Yes	O (0) No - O (1) Yes	O (0) No - O (1) Yes
(3) Maintenance	O (0) No - O (1) Yes	O (0) No - O (1) Yes	O (0) No - O (1) Yes
(4) Pesticide regime	O (0) No - O (1) Yes	O (0) No - O (1) Yes	O (0) No - O (1) Yes

(5) Harvest	O (0) No - O (1) Yes	O (0) No - O (1) Yes	O (0) No - O (1) Yes
46. Do you have non-paid neighbours / family members who work on the farm (e.g.. mutual aid employment)	O (0) Non O (1) Oui		
47. If yes, mutual aid assistance occurs in which activities :			
(1) Land preparation	O (0) No - O (1) Yes	O (-99) NA	
(2) Sowing	O (0) No - O (1) Yes		
(3) Maintenance	O (0) No - O (1) Yes		
(4) Pesticide regime	O (0) No - O (1) Yes		
(5) Harvest	O (0) No - O (1) Yes		
48. Do you have paid workers on the farm?	O (0) No - O (1) Yes		
If yes, can explain per type of contractual arrangement the number and wage paid?	49. Number of workers	50. Wage paid(average)	
(1) Temporary employment, verbal agreement	[]# men []# women O (-99) NA	[] FCFA / ha [] FCFA / day [] FCFA / month [] FCFA / season In kind remuneration: [] FCFA O (-99) NA	
(2) Temporary employment, written contract	[]# men []# women O (-99) NA	[] FCFA / ha [] FCFA / day [] FCFA / month [] FCFA / season In kind remuneration: [] FCFA O (-99) NA	
(3) Permanent employment, verbal agreement	[]# men []# women O (-99) NA	[] FCFA / month In kind remuneration: [] FCFA O (-99) NA	
(4) Permanent employment, written contract	[]# men []# women O (-99) NA	[] FCFA / month In kind remuneration: [] FCFA O (-99) NA	

13. Agricultural practices		
51. Do you apply crop rotation?	<u>Conventional</u> O (0) No (cotton / cotton) O (1) cotton / cereals / cotton O (2) cotton / vegetables/ cotton O (3) cotton / cereals / vegetables / cotton O (6) Others, state: O (-99) NA	<u>Fairtrade</u> O (0) No (cotton / cotton) O (1) cotton / cereals / cotton O (2) cotton / vegetables/ cotton O (3) cotton / cereals / vegetables / cotton O (6) Others, state: O (-99) NA
52. If you apply crop rotation which cereals or vegetables, which ones?		
(1) Cereals	O (-99) NA	
(2) Vegetables	O (-99) NA	
53. If you apply crop rotation, How many consecutive years you cultivate cotton on the same plot before rotating?	<u>Conventional</u> []# years O (-99) NA	<u>As Fairtrade</u> []# years O (-99) NA
54. If you leave the land fallow		

(1) After how many years of production do you leave the land fallow?	[_____]# years	O (-99) NA
(2) How long is the fallow period ?	[_____]# years	O (-99) NA
55. Which of the following anti-erosion measures do you apply?		
(1) Stone barriers to prevent water from running off / slow down water	O (0) No - O (1) Yes	
(2) Dikes to prevent water from running off / slow down water	O (0) No - O (1) Yes	
(3) Planting anti-erosion crops, e.g. grasses on slopes	O (0) No - O (1) Yes	
(4) Building ridges in any direction	O (0) No - O (1) Yes	
(5) Building ridges along slopes (opposite to the direction of the slope)	O (0) No - O (1) Yes	
56. What kind of pesticide regime do you apply??	<u>(1) Conventional</u> O (1) Calendar treatment O (2) Stage-specific treatment O (3) Threshold sprays O (4) Integrated Plant and Protection Management (IPPM) O (5) Organic pesticides O (-99) NA	<u>(2) Fairtrade</u> O (1) Calendar treatment O (2) Stage-specific treatment O (3) Threshold sprays O (4) Integrated Plant and Protection Management (IPPM) O (5) Organic pesticides O (-99) NA
57. What measures have you taken to ensure that Personal Protective Equipment (PPE) is used? <i>Examples are gloves, boots, masks and protective clothing.</i>	O (1) No measures implemented. Members/ workers work unprotected as common practice. O (2) Basic measures have been implemented BUT it is not used at all times OR workers are charged for PPE O (3) Measures have been implemented and members have access to PPE AND workers are provided with free essential PPE AND its use is enforced O (-99) NA (in case of organic)	
58. How do you prepare your land?	O (0) No preparation O (1) Manually O (2) Animal traction O (2) With tractor	
59. If cattle, who owns the cattle?	O (1) Myself O (2) Someone else O (-99) – Not applicable	
60. If tractor, who owns the tractor?	O (1) – myself O (2) – hired O (-99) – Not applicable	
61. What is your sowing method?	O (1) Manually direct seeding O (2) Manually under vegetable cover O (3) With sowing machine	
62. What do you do with cotton crop residues?	O (1) Burn O (1) Plough into the soil O (1) Use for biofuel	

14. Access to inputs		
63. How would you rate your access to pesticides?	<i>(1) Chemical</i>	<i>(2) Biological</i>
	O (1) limited by supply restrictions (quality/quantity) O (2) limited by insufficient funds O (3) Sufficient available O (-99) NA (Don't use)	O (1) limited by supply restrictions (quality/quantity) O (2) limited by high prices of organic pesticides O (3) limited by insufficient credit

		O (4) If self made, limited by time or availability of natural resources O (5) Sufficient available O (-99) NA (Don't use)
64. How would you rate your access to fertilizers?	(1) <i>Chemical</i>	(2) <i>Organic (including manure, mulch and organic household waste)</i>
	O (1) limited by supply restrictions (quality/quantity) O (2) limited by insufficient funds O (3) Sufficient available O (-99) NA (Don't use)	O (1) limited by supply restrictions (quality/quantity) O (2) limited by high prices of organic pesticides O (3) limited by insufficient credit O (4) If self made, limited by time or availability of natural resources O (5) Sufficient available O (-99) NA (Don't use)

15. Agricultural inputs (2013/14)				
65. <u>Chemical fertilizer</u> use in cotton production	<i>Type (product name)</i>	<i>Quantity applied (kg/ha)</i> <u>Conventional</u>	<i>Quantity applied (kg/ha)</i> <u>Fairtrade</u>	
		[_____]	[_____]	
		[_____]	[_____]	
		[_____]	[_____]	
66. <u>Organic fertilizer</u> use in cotton production	<i>Type (product name)</i>	<i>Quantity applied (kg/ha)</i> <u>Conventional</u>	<i>Quantity applied (kg/ha)</i> <u>Fairtrade</u>	
	Cattle manure	[_____] cows/ ha	[_____] cows/ ha	
		[_____] kg/ha	[_____] kg/ha	
		[_____] kg /ha	[_____] kg /ha	
		[_____] kg /ha	[_____] kg /ha	
67. <u>Chemical pesticides</u> use in cotton production	<i>Type (product name)</i>	<i>Quantity applied (litre/ha)</i> <u>Conventional</u>	<i>Quantity applied (litre/ha)</i> <u>Fairtrade</u>	
	(1) Herbicide		[_____] litre/ha	[_____] litre/ha
			[_____] litre/ha	[_____] litre/ha
			[_____] litre/ha	[_____] litre/ha
			[_____] litre/ha	[_____] litre/ha
	(2) Fungicide		[_____] litre/ha	[_____] litre/ha
			[_____] litre/ha	[_____] litre/ha
			[_____] litre/ha	[_____] litre/ha
	(3) Insecticide		[_____] litre/ha	[_____] litre/ha
			[_____] litre/ha	[_____] litre/ha
			[_____] litre/ha	[_____] litre/ha

68. <u>Biological pesticides</u> use in cotton production	<i>Type (product name)</i>	<i>Quantity applied (litre/ha)</i> <u>Conventional</u>	<i>Quantity applied (litre/ha)</i> <u>Fairtrade</u>
		[] litre/ha	[] litre/ha
		[] litre/ha	[] litre/ha
		[] litre/ha	[] litre/ha
		[] litre/ha	[] litre/ha

16. SPO organization	
69. Do you believe that your producer organization is genuinely working for your interest?	O (0) No - O (1) Sometimes - O (2) Yes
70. Do you feel that you are able to convey your ideas or concerns to producer organization management?	O (0) No - O (1) Sometimes - O (2) Yes
71. Did you participate in any training provided or organized by the SPO in 2014?	O (0) No - O (1) Yes
72. If yes, can you indicate on which topics?	Note corresponding numbers from annex on topics: Other, specify:
73. Are you satisfied by the trainings provided by your SPO?	O (1) Disappointed O (2) Neither disappointed or satisfied O (3) Satisfied
74. What other services does the SPO deliver?	
(1) Access to crop protection products or equipment	O (0) No O (1) Yes, but insufficient or poor quality O (2) Yes, sufficient and good quality
(2) Access to planting material	O (0) No O (1) Yes, but insufficient or poor quality O (2) Yes, sufficient and good quality
(3) Distribution of PPE	O (0) No O (1) Yes, but insufficient or poor quality O (2) Yes, sufficient and good quality
(4) Short-term credit	O (0) No O (1) Yes, but insufficient or poor quality O (2) Yes, sufficient and good quality
(5) Long-term credit	O (0) No O (1) Yes, but insufficient or poor quality O (2) Yes, sufficient and good quality
(6) Community services	O (0) No O (1) Yes, but insufficient or poor quality O (2) Yes, sufficient and good quality
(7) Income diversification and/or food security support	O (0) No O (1) Yes, but insufficient or poor quality O (2) Yes, sufficient and good quality
(8) Other, specify:	

17. Impact	
75. Do you perceive a change in your economic situation since entry into Fairtrade / since the last 3 years (= for control group)?	O (1) Worse O (2) Neither worse or better O (3) Better
76. Did you either have to (1) take out a loan, (2)	O (0) No - O (1) Yes

sale of productive or natural assets to deal with natural, medical or other shocks in 2014?		
77. Do all children under 12 years go to school at appropriate grade level?	O (0) Non - O (1) Yes - O (-99) NA	
78. Avez-vous connu, au cours de 2014, des périodes où vous n'avez pas eu un accès adéquat à la nourriture pour votre ménage?	O (0) Non - O (1) Yes	
79. If yes, how many weeks per year??	[_____]# O (-99) NA	
<i>Awareness of child rights :</i>		
80. Age when children can spray? <i>Answer should be: 18 year</i>	O (0) Non - O (1) Yes	
81. Age when children can pick cotton? <i>Answer should be: 15: year</i>	O (0) Non - O (1) Yes	
82. What are the conditions under which children under 15 year old can work on the land? <i>Answer should be: short hours, light work, outside school times, under supervision of parents</i>	O (0) Non - O (1) Yes	
83. How many trees do you have on your cotton field?	[_____]#	
84. What is the main source of drinking water for the household? <i>Not applicable to Mali (= in PPI)</i>	O (1) surface water, non-modern well, drilled well O (2) modern well O (3) public pump O (4) private tap O (5) NA (Mali)	
85. What is the main source of energy for lighting? <i>Not applicable to Burkina (= in PPI)</i>	O (1) Fire wood O (2) Lantern or homemade kerosene lamp O (3) Generator or batteries O (4) solar or electricity O (5) NA (Burkina)	
86. Do you have adequate access to health services?	O (1) not at all O (2) some, but distance is too far O (3) some, but I cannot pay for it O (4) some, but quality is too low O (5) yes	
87. Do you believe the levels of cooperation have increased in your community since entry into Fairtrade / since the last 3 years (= for control group)?	O (0) Disagree O (1) Neither agree or disagree O (2) Agree O (-88) Don't know	
88. Do you believe your community is more able to plan and advocate their social development since entry into Fairtrade / since the last 3 years (= for control group)?	O (0) Disagree O (1) Neither agree or disagree O (2) Agree O (-88) Don't know	
89. Do you believe that you have greater control and choice over production since entry into Fairtrade/ since the last 3 years (= for control group)?	O (0) Disagree O (1) Neither agree or disagree O (2) Agree O (-88) Don't know	
90. Do you believe that women have more of a say in household decisions since entry into Fairtrade/ since the last 3 years (= for control group)?	O (0) Disagree O (1) Neither agree or disagree O (2) Agree O (-88) Don't know	
<i>Questions for certified farmers:</i>		
91. Are you satisfied with the benefits associated with Fairtrade ? O (0) Not satisfied	<i>Questions for counterfactuals:</i>	
	92. Do you know about Fairtrade ? O (0) No - O (1) Yes O (-99) NA (Fairtrade farmers)	

O (1) Indifferent O (2) Satisfied O (-99) NA (groupe de contrôle)	93. If yes , would you like to take part in Fairtrade? O (0) Non - O (1) Yes - O (-99) NA	
94. What are the postive aspects of Fairtrade:	95. If yes, for what reason :	
Answers to questions 94 et 95 :		O (-99) NA
(1) Premiun	O (0) No - O (1) Some - O (2) A lot	
(2) Minimum price	O (0) No - O (1) Some - O (2) A lot	
(3) Access to market	O (0) No - O (1) Some - O (2) A lot	
(4) Access to training	O (0) No - O (1) Some - O (2) A lot	
(5) Improved group management	O (0) No - O (1) Some - O (2) A lot	
(6) Improved gender relationships	O (0) No - O (1) Some - O (2) A lot	
(7) Improved group cohesion	O (0) No - O (1) Some - O (2) A lot	
(8) Access to finance	O (0) No - O (1) Some - O (2) A lot	
(9) Others, state:		

Progress out of Poverty Index - Mali

Indicator	Answer
1. How many household members are 11 years old or younger?	<input type="radio"/> (1) Five or more <input type="radio"/> (2) Four <input type="radio"/> (3) Three <input type="radio"/> (4) Two <input type="radio"/> (5) One <input type="radio"/> (6) None
2. How many members of the household usually work as their main occupation in agriculture, animal husbandry, fishing, or forestry?	<input type="radio"/> (1) Three or more <input type="radio"/> (2) Two <input type="radio"/> (3) One or none
3. What is the main construction material of the roof of the residence?	<input type="radio"/> (1) Tile or thatch <input type="radio"/> (2) Mud, corrugated metal sheets, concrete, or other
4. What is the main construction material of the walls of the residence?	<input type="radio"/> (1) Partly cement or others <input type="radio"/> (2) Cement
5. What is the household's main source of drinking water?	<input type="radio"/> (1) Surface water, non-modern well, drilled well, or other <input type="radio"/> (2) Modern well <input type="radio"/> (3) Public pump <input type="radio"/> (4) Faucet tap
6. What toilet arrangements does the household have?	<input type="radio"/> (1) Others <input type="radio"/> (2) Latrine (private or shared with other households) or flush toilet (private inside, private outside, or shared with other households)
7. Does the household own any television sets?	<input type="radio"/> (1) No <input type="radio"/> (2) Yes
8. Does the household own any radios?	<input type="radio"/> (1) No <input type="radio"/> (2) Yes
9. Does the household own any irons?	<input type="radio"/> (1) No <input type="radio"/> (2) Yes
10. Does the household own any motorbikes?	<input type="radio"/> (1) No <input type="radio"/> (2) Yes

Progress out of Poverty Index - Burkina Faso

Indicator	Answer
1. How many household members are 14 years old or younger?	<input type="radio"/> (1) Five or more <input type="radio"/> (2) Five <input type="radio"/> (3) Four <input type="radio"/> (4) Three <input type="radio"/> (5) Two <input type="radio"/> (6) One <input type="radio"/> (7) None
2. In what languages can the male head/spouse read and write?	<input type="radio"/> (1) None, or no male head/spouse <input type="radio"/> (2) French only <input type="radio"/> (3) A non-French language (regardless of French literacy)
3. Has the female head/spouse completed first grade?	<input type="radio"/> (1) No <input type="radio"/> (2) No female head/spouse <input type="radio"/> (3) Yes
4. What is the main source of energy for lighting?	<input type="radio"/> (1) Firewood, or other <input type="radio"/> (2) Candles, kerosene, or LPG <input type="radio"/> (3) Flashlight, or batte <input type="radio"/> (4) Electricity, or solar energy
5. What toilet arrangements does the household have?	<input type="radio"/> (1) No toilet arrangement, or other <input type="radio"/> (2) Non-ventilated pit latrine <input type="radio"/> (3) Ventilated pit latrine, or flush to a septic tank
6. Does the household own a television?	<input type="radio"/> (1) No <input type="radio"/> (2) Yes
7. Does the household own a bed or a mattress?	<input type="radio"/> (1) No <input type="radio"/> (2) Yes
8. Does the household own a scooter or a motorcycle?	<input type="radio"/> (1) No <input type="radio"/> (2) Yes
9. Have any household members, in their main occupation in the last seven days, worked in agriculture, animal husbandry, fishing, or forestry?	<input type="radio"/> (1) No <input type="radio"/> (2) Yes
10. How many head of cattle or other large animals does the household now own?	<input type="radio"/> (1) None, or one <input type="radio"/> (2) Two <input type="radio"/> (3) Three to five <input type="radio"/> (4) Six or more

Progress out of Poverty Index - Senegal

Indicator	Answer
1. What are the walls of the residence made of?	O (1) Other O (2) Mud blocks or cinder blocks
2. What is the main source of energy for lighting?	O (1) Lantern or homemade kerosene lamp O (2) Candle, wood, or other O (3) Generator, solar, gas lamp, or electricity
3. What is the main fuel used for cooking?	O (1) Other O (2) Gas
4. What is the main source of drinking water?	O (1) Other O (2) Inside faucet
5. What toilet arrangement does the household use?	O (1) Uncovered latrine, basin/bucket, other, or none O (2) Covered latrine, improved ventilated latrine, or flush to septic tank O (3) Flush to sewer
6. Does the household own a refrigerator/freezer?	O (1) No O (2) Yes
7. Does the household own a television?	O (1) No O (2) Yes
8. Does the household own a fan?	O (1) No O (2) Yes
9. Does the household own an electronic iron?	O (1) No O (2) Yes
10. Does the female head/spouse know how to read and write in any language?	O (1) No female head/spouse O (2) No O (3) Yes

SPO Questionnaire

56. Questionnaire id	
1. Questionnaire number	
2. Enumerator code	
3. Date of interview	Day: ___ Month: ___ Year: _____

2. Location	
4. Country	
5. Region	
6. Cercle	
7. District or commune	
8. Village	

3. SPO	
9. Name of organization	
10. Type of organization	O (1) First grade O (2) Second grade O (3) third grade O (4) fourth grade
11. Member of second grade organization 12. Name of third grade organization	Name 2 nd : O (-99) Not applicable Name 3 rd : O (-99) Not applicable
13. Name of contact person	
14. Function of contact person	
15. Telephone number	

4. Certification				
16. Do you have any of the following certifications? State year in which certification was first achieved				
(1) Equitable	O (o) No	O (1) Yes, since : [_____]	O (2) Yes, but don't know,*since : [_____]	O (3) in process to become » [_____]
(2) Organic	O (o) No	O (1) Yes, since : [_____]	O (2) Yes, but don't know when,*since : [_____]	O (3) in process to become » [_____]
(3) Initiative Better Cotton (BCI)	O (o) No	O (1) Yes, since : [_____]	O (2) Yes, but don't know,*since : [_____]	O (3) in process to become » [_____]
(4) Others, name :	O (o) No	O (1) Yes, since : [_____]	O (2) Yes, but don't know,*since : [_____]	O (3) in process to become » [_____]
17. Have you ever been decertified?				
(1) Equitable	O (o) No	O (1)Yes (a) 1 st certificate : [_____] (b)Decertified : [_____]	O (2) Yes, but don't know when* (a) 1 st certificate : [_____] (b) Decertified : [_____]	
(2) Organic	O (o) No	O (1)Yes (a) 1 st certificate : [_____]	O (2) Yes, but don't know when* (a) 1 st certificate : [_____]	

		[] (b)Decertified : []	[] (b) Decertified : []	
(3) Initiative Better Cotton (BCI)	O (o) No	O (1)Yes (a) 1 st certificate : [] (b)Decertified : []	O (2) Yes, but don't know when* (a) 1 st certificate : [] (b) Decertified : []	
(4) Others, name :	O (o) No	O (1)Yes (a) 1 st certificate : [] (b)Decertified : []	O (2) Yes, but don't know when* (a) 1 st certificate : [] (b) Decertified : []	

Certificate holder section (section 5 till 8)

5. Membership				
18. Record keeping : do you have records of members, land area, production, payments, etc?		O (o) No O (1) Partially O (2) Yes		
19. Number of members	2011/2012	2012/2013	2013/2014	O (-88) Ne sait pas
(1) Total	[] #	[] #	[] #	
(a) Men	[] #	[] #	[] #	
(b) Women	[] #	[] #	[] #	
20. Number of members who produce cotton				
(1) Conventional (total)	[] #	[] #	[] #	O (-99) NA
(a) Men	[] #	[] #	[] #	
(b) Women	[] #	[] #	[] #	
(2) Equitable (total)	[] #	[] #	[] #	O (-99) NA
(a) Men	[] #	[] #	[] #	
(b) Women	[] #	[] #	[] #	
(3) Organic (total)	[] #	[] #	[] #	O (-99) NA
(a) Men	[] #	[] #	[] #	
(b) Women	[] #	[] #	[] #	
(4) Fairtrade-Organic (total)	[] #	[] #	[] #	O (-99) NA
(a) Men	[] #	[] #	[] #	
(b) Women	[] #	[] #	[] #	

6. Production and sale				
	2011/2012	2012/2013	2013/2014	
21. Total land area cultivated with cotton by members (ha):				
(1) Conventional	[] ha	[] ha	[] ha	O (-99) NA
(2) Fairtrade	[] ha	[] ha	[] ha	O (-99) NA
(3) Organic	[] ha	[] ha	[] ha	O (-99) NA
(4) Fairtrade & organic	[] ha	[] ha	[] ha	O (-99) NA
22. Total production volume cultivated by members (tonnes):				
(1) Conventional	[] t	[] t	[] t	O (-99) NA
(2) Fairtrade	[] t	[] t	[] t	O (-99) NA
(3) Organic	[] t	[] t	[] t	O (-99) NA
(4) Fairtrade & organic	[] t	[] t	[] t	O (-99) NA

23. Total volume cultivated and sold by members (tonnes) :				
(1) Produced and sold as conventional	[] t	[] t	[] t	O (-99) NA
(2) Produced as Fairtrade and sold				O (-88) Don't know
(a) Fairtrade	[] t	[] t	[] t	
(b) Conventional	[] t	[] t	[] t	O (-99) NA
(c) Waiting to be sold	[] t	[] t	[] t	
(3) Produced as Organic and sold				O (-88) Don't know
(a) Fairtrade	[] t	[] t	[] t	
(b) Conventional	[] t	[] t	[] t	O (-99) NA
(c) Waiting to be sold	[] t	[] t	[] t	
(4) Produced as Fairtrade Organic and sold				O (-88) Don't know
(a) Fairtrade	[] t	[] t	[] t	
(b) Conventional	[] t	[] t	[] t	O (-99) NA
(c) Waiting to be sold	[] t	[] t	[] t	
24. Price and premium received for cotton grain by SPO (en FCFA/kg)*				
(1) Produced and sold as conventional	[]	[]	[]	O (-99) NA
(2) Produced as Fairtrade				O (-99) NA
(a) Price	[]	[]	[]	
(b) Premium	[]	[]	[]	
(c) Premium (total amount in million FCFA)	[] M	[] M	[] M	
(3) Produced as Organic				O (-99) NA
(a) Price	[]	[]	[]	
(b) Premium organic	[]	[]	[]	
(4) Produced as Fairtrade Organic				O (-99) NA
(a) Price	[]	[]	[]	
(b) Premium	[]	[]	[]	
(c) Premium (total amount in million FCFA)	[] M	[] M	[] M	

7. Productivity				
25. How has the productivity of cotton grain in kg per ha evolved in the last three years ?				
	2011/2012	2012/2013	2013/2014	
(1) Conventional	[] kg/ha	[] kg/ha	[] kg/ha	O (-99) NA
(2) Fairtrade	[] kg/ha	[] kg/ha	[] kg/ha	O (-99) NA
(3) Organic	[] kg/ha	[] kg/ha	[] kg/ha	O (-99) NA
(4) Fairtrade & Organic	[] kg/ha	[] kg/ha	[] kg/ha	O (-99) NA
26. If there are changes, for what reason?				
(1) Good agricultural practices	O (o) No - O (1) Yes			O (-88) Don't know O (-99) NA
(2) Quality of seeds	O (o) No - O (1) Yes			
(3) Quality/quantity of pesticides	O (o) No - O (1) Yes			
(4) Quality/quanty of fertilizer	O (o) No - O (1) Yes			
(5) Use of technology	O (o) No - O (1) Yes			
(6) Soil degradation	O (o) No - O (1) Yes			
(7) Climate change (rain)	O (o) No - O (1) Yes			
(8) Others, specify :				

8. Markets			
27. Do you know the buyers of Fairtrade cotton and or Fairtrade & Organic?		O (o) No - O (1) Yes	
28. If yes, the buyers are at what level of the value chain?			
(1) Traders	O (o) No - O (1) Yes		O (-99) NA
(2) Spinners	O (o) No - O (1) Yes		
(3) Manufacturers	O (o) No - O (1) Yes		
(4) Distribution	O (o) No - O (1) Yes		
29. If yes, how many buyers do you know?		O [] # O (-99) NA	
30. Are you involved in negotiation ?		O (o) No - O (1) Yes	
31. If yes, what is your ability to negotiate prices with buyers?		O (1) Weak O (2) Not weak but not strong O (3) Strong O (-99) NA	
32. Is your organisation involved in the transformation of cotton ?		O (o) No - O (1) Yes	
33. Does your organisation have a positive balance? (all activities)	2012	2013	2014
	O (o) No	O (o) No	O (o) No
	O (1) Yes	O (1) Yes	O (1) Yes
	O (-88) Don't know	O (-88) Don't know	O (-88) Don't know

First degree SPO section (section 5b till 8b)

5b. Membership		
34. Record keeping : do you have records of members, land area, production, payments, etc?	<input type="radio"/> (0) No <input type="radio"/> (1) Partially <input type="radio"/> (2) Yes	
35. Number of members in 2014	<input type="text"/> #total <input type="text"/> # men <input type="text"/> # women	<input type="radio"/> (-88) Don't know
36. How has the number of members evolved in the last 3 years ?	<input type="radio"/> (0) Decreased <input type="radio"/> (1) Stable <input type="radio"/> (2) Increased	
37. Number of members cultivating cotton in 2013/2014		
(1) Conventional	<input type="text"/> #total <input type="text"/> # men <input type="text"/> # women	<input type="radio"/> (-88) Don't know <input type="radio"/> (-99) NA
(2) Fairtrade	<input type="text"/> #total <input type="text"/> # men <input type="text"/> # women	<input type="radio"/> (-88) Don't know <input type="radio"/> (-99) NA
(3) Organic	<input type="text"/> #total <input type="text"/> # men <input type="text"/> # women	<input type="radio"/> (-88) Don't know <input type="radio"/> (-99) NA
(4) Fairtrade & Organic	<input type="text"/> #total <input type="text"/> # men <input type="text"/> # women	<input type="radio"/> (-88) Don't know <input type="radio"/> (-99) NA
38. How has the number of members cultivating cotton evolved in the last 3 years ?	<input type="radio"/> (0) Decreased <input type="radio"/> (1) Stable <input type="radio"/> (2) Increased	

6b. Production		
39. Total land area cultivated with cotton by members (ha) in 2013/14:		
(1) Conventional	<input type="text"/> ha	<input type="radio"/> (-88) Don't know - <input type="radio"/> (-99) NA
(2) Fairtrade	<input type="text"/> ha	<input type="radio"/> (-88) Don't know - <input type="radio"/> (-99) NA
(3) Organic	<input type="text"/> ha	<input type="radio"/> (-88) Don't know - <input type="radio"/> (-99) NA
(4) Fairtrade & Organic	<input type="text"/> ha	<input type="radio"/> (-88) Don't know - <input type="radio"/> (-99) NA
40. Total production volume cultivated by members (tonnes) in 2013/14:		
(1) Conventional	<input type="text"/> t	<input type="radio"/> (-88) Don't know - <input type="radio"/> (-99) NA
(2) Fairtrade	<input type="text"/> t	<input type="radio"/> (-88) Don't know - <input type="radio"/> (-99) NA
(3) Organic	<input type="text"/> t	<input type="radio"/> (-88) Don't know - <input type="radio"/> (-99) NA
(4) Fairtrade & Organic	<input type="text"/> t	<input type="radio"/> (-88) Don't know - <input type="radio"/> (-99) NA
41. Has the members total production volume of cotton evolved in the last 3 years ?	<input type="radio"/> (0) Decreased <input type="radio"/> (1) Stable <input type="radio"/> (2) Increased	
42. Total volume cultivated and sold by members (tonnes) :		
(1) Produced and sold as conventional	<input type="text"/> kg	<input type="radio"/> (-88) Don't know <input type="radio"/> (-99) NA
(2) Produced as Fairtrade and sold		<input type="radio"/> (-88) Don't know
(a) Fairtrade	<input type="text"/> kg	<input type="radio"/> (-99) NA
(b) Conventional	<input type="text"/> kg	
(c) Waiting to be sold	<input type="text"/> kg	
(3) Produced as Organic and sold		<input type="radio"/> (-88) Don't know
(a) Fairtrade	<input type="text"/> kg	<input type="radio"/> (-99) NA
(b) Conventional	<input type="text"/> kg	

(c) Waiting to be sold	[] kg	
(4) Produced as Fairtrade Organic and sold (a) Fairtrade (b) Conventional (c) Waiting to be sold	[] kg [] kg [] kg	O (-88) Don't know O (-99) NA
43. Price and premium received by SPO for cotton grain (in FCFA/kg)		
(1) Produced and sold as conventional	[]	O (-88) Don't know O (-99) NA
(2) Produced as Fairtrade (a) Price (b) Premium (c) Premium (total amount in million FCFA)	[] [] [] M	O (-88) Don't know O (-99) NA
(3) Produced as Organic (a) Price (b) Premium organic	[] []	O (-88) Don't know O (-99) NA
(4) Produced as Fairtrade Organic (a) Price (b) Premium (c) Premium (total amount in million FCFA)	[] [] [] M	O (-88) Don't know O (-99) NA

7b. Productivity

44. How has the productivity of cotton grain in kg per ha evolved in the last three years ?

(1) Conventional	[] kg/ha	[] kg/ha	[] kg/ha	O (-99) NA
(2) Fairtrade	[] kg/ha	[] kg/ha	[] kg/ha	O (-99) NA
(3) Organic	[] kg/ha	[] kg/ha	[] kg/ha	O (-99) NA
(4) Fairtrade & Fairtrade	[] kg/ha	[] kg/ha	[] kg/ha	O (-99) NA

45. If there are changes, for what reason?

(1) Good agricultural practices	O (0) No - O (1) Yes	O (-88) Don't know O (-99) NA
(2) Quality of seeds	O (0) No - O (1) Yes	
(3) Quality/quantity of pesticides	O (0) No - O (1) Yes	
(4) Quality/quantity of fertilizer	O (0) No - O (1) Yes	
(5) Use of technology	O (0) No - O (1) Yes	
(6) Soil degradation	O (0) No - O (1) Yes	
(7) Climate change (rain)	O (0) No - O (1) Yes	
(8) Others, specify:		

8b. Market

46. Do you know the buyers of Fairtrade cotton and or Fairtrade & Organic?	O (0) No - O (1) Yes	
47. If yes, the buyers are at what level of the value chain?		
(1) Traders	O (0) No - O (1) Yes	O (-99) NA
(2) Spinners	O (0) No - O (1) Yes	
(3) Manufacturers	O (0) No - O (1) Yes	
(4) Distribution	O (0) No - O (1) Yes	
48. If yes, how many buyers do you know?	O [] # O (-99) NA	
49. Are you involved in negotiation?	O (0) No - O (1) Yes	
50. If yes, what is your ability to negotiate prices with buyers?	O (1) Weak	

		O (2) Not weak but not strong O (3) Strong O (-99) NA	
51. Est-ce que votre OP est impliquée dans la transformation du coton ?	O (0) No - O (1) Yes		
52. Does your organisation have a positive balance? (all activities)	2012	2013	2014
	O (0) No	O (0) No	O (0) No
	O (1) Yes	O (1) Yes	O (1) Yes
	O (-88) Don't know	O (-88) Don't know	O (-88) Don't know

Continuation of common version

9. Premium				
<i>Questions for SPO certified and decertified, not applicable for counterfactuals</i>				
53. When did you receive the last premium?	[] year O (0) never received			
54. Who is involved in the decision on premium use?				
(1) SPO management	O (0) No - O (1) Yes		O (-99) NA	
(2) SPO members	O (0) No - O (1) Yes			
(3) SPO workers	O (0) No - O (1) Yes			
(4) Community members	O (0) No - O (1) Yes			
55. Type of activity (partly) funded by premium (2014)*	56. Year	57. Amount paid by premium (1000 FCFA)	58. Amount paid by other funding (1000 FCFA)	59. Number of beneficiaries
(1)	[]	[]	[]	[] #
(2)	[]	[]	[]	[] #
(3)	[]	[]	[]	[] #
(4)	[]	[]	[]	[] #
(5)	[]	[]	[]	[] #
(6)	[]	[]	[]	[] #
(7)	[]	[]	[]	[] #
(8)	[]	[]	[]	[] #
(9)	[]	[]	[]	[] #
(10)	[]	[]	[]	[] #
60. Number of children (<16) reached with Fairtrade premium funded projects (2014)				[] #
61. Number of women reached with Fairtrade premium funded projects (2014)				[] #
62. Number of youth (16-24) reached with Fairtrade premium funded projects (2014)				[] #
63. Other type of services the SPO offers to members not funded (partially) by Fairtrade premium (2014):				
(1) Intensive technical training			O (0) No - O (1) Yes	
(2) Access to crop protection products or equipment			O (0) No - O (1) Yes	
(3) Access to planting material			O (0) No - O (1) Yes	
(4) Distribution of PPE			O (0) No - O (1) Yes	
(5) Short-term credit			O (0) No - O (1) Yes	
(6) Long-term credit			O (0) No - O (1) Yes	
(7) Community services			O (0) No - O (1) Yes	
(8) Income diversification and/or food security support			O (0) No - O (1) Yes	
(9) Others, specify :				

* See annex on type of activities

10. Access to finance			
64. Did you receive a credit or loan (2014)?		O (0) No - O (1) Yes	
<i>If yes, from whom?</i>			
(1) Fairtrade buyers (pre-finance)		O (0) No - O (1) Yes	O (-99) NA
(2) Non-Fairtrade buyers		O (0) No - O (1) Yes	
(3) Ethical banks or micro-finance institutions		O (0) No - O (1) Yes	
(4) Conventional banks and institutions		O (0) No - O (1) Yes	
(5) Other, specify :			
65. Did you receive a grant from donors (2014)?		O (0) No - O (1) Yes	
66. If yes, for what purpose?		Amount (M FCFA)	
1		[] FCFA	O (-99) NA
2		[] FCFA	
3		[] FCFA	
4		[] FCFA	
5		[] FCFA	
6		[] FCFA	
7		[] FCFA	

* See annex on type of activities

11. Organization			
Who is in the organization?	Adults (26 ans et plus)	Youth (16-25 ans)	
67. Board members (Comité de gestion)	O (1) Men [] O (2) Women []	O (1) Men [] O (2) Women []	
68. Committee members for committees other than Board	O (1) Men [] O (2) Women []	O (1) Men [] O (2) Women []	O (-99) NA
69. Management and staff	O (1) Men [] O (2) Women []	O (1) Men [] O (2) Women []	O (-99) NA
70. General Assembly meeting participants (during last ordinary GA)	O (1) Men [] O (2) Women []	O (1) Men [] O (2) Women []	O (-88) Don't know
71. How many paid staff do you have?	[] #		
72. How did the average salary develop of the paid staff develop in the past 3 years?	O (1) decrease O (2) stable O (3) increase O (-99) Not applicable		O (-99) NA
73. If you have paid staff, how has the average salary evolved in the last 3 years?	O (1) decrease O (2) stable O (3) increase O (-99) Not applicable		O (-99) NA

12. Policies and strategies	
74. When was your last General Assembly?	[_____] year
75. Did your organization hold a General Assembly in 2014?	<p>O (1) No annual General Assembly was held in the year.</p> <p>O (2) The annual General Assembly was postponed into the following year for reasons that are more than technically reasonable OR there was a General Assembly with insufficient quorum (invalid General Assembly)</p> <p>O (3) The annual General Assembly took place (even if not recorded/poorly called or recorded) OR postponed for understandable reasons</p> <p>O (4) The annual General Assemblies took place fully in line with statutes</p> <p>O (5) The annual General Assemblies took place fully in line with statutes AND the General Assembly is given plenty of time to discuss all matters</p>
76. Does the organization have a child labour policy that prevents the employment of children under 15 years?	O (0) No - O (1) Yes
77. Have you implemented procedures to prevent child labour?	O (0) No - O (1) Yes
78. Do you have a gender policy and or strategy?	
(1) Quota for committee or board members?	O (0) No - O (1) Yes
(2) Training specifically targeting women	O (0) No - O (1) Yes
(3) Training addressing gender issues	O (0) No - O (1) Yes
(4) Loans or targeting women	O (0) No - O (1) Yes
(5) Others, specify :	
79. Do you have an Internal Control System (ICS) which monitors :	
(1) use of banned pesticides,	O (0) No - O (1) Yes
(2) use of all pesticides	O (0) No - O (1) Yes
(3) volumes of pesticides used by SPO members	O (0) No - O (1) Yes
80. Do you have processes to ensure the people are protected from harmful effects of chemicals including children and pregnant women?	<p>O (1) Organisation did not carry out any information activity.</p> <p>O (2) Less than 50% of members and workers have been informed OR content/quality of information was insufficient</p> <p>O (3) At least 50% of members and workers have been informed AND content of information was sufficient.</p> <p>O (4) At least 80% of members and workers have been informed AND content of information was sufficient AND there are informative materials</p> <p>O (5) RANK 4 AND there is an ongoing training/awareness plan/ refresher training, or no pesticides or hazardous chemicals are used</p>
81. Have you analysed the risks associated with climate change?	O (0) No - O (1) Yes
82. Are you actively implementing a climate adaptation strategy with members?	<p>O (0) No - O (1) Yes</p> <p>If yes, what activities?</p>

13. Training to members	
83. Do you use an agronomist?	<p>O (1) do not use trained agronomists</p> <p>O (2) occasionally buy-in trained agronomists</p> <p>O (3) regularly buy-in trained agronomists</p> <p>O (4) employ trained agronomists</p>
84. How many of agricultural extension workers do you employ within SPO?	[_____] #
85. How many lead farmers provide agricultural advice to SPO members?	[_____] #
86. Did members benefit from technical support	O (0) No - O (1) Yes

from an external partner in 2013/2014 ?			
87. If yes, what type of partner ?			
(1) La faitière	O (0) No - O (1) Yes		O (-99) NA
(2) Cotton company	O (0) No - O (1) Yes		
(3) Service technique de l'état	O (0) No - O (1) Yes		
(4) NGO	O (0) No - O (1) Yes		
(5) Researchers	O (0) No - O (1) Yes		
(6) Buyers	O (0) No - O (1) Yes		
(7) Input provider	O (0) No - O (1) Yes		
(8) Others, specify:			
88. Did you members have a training in 2013/2014 ?		O (0) No - O (1) Yes	
89. Please indicate all topics on which the SPO provided training in 2014 <i>Note corresponding numbers from annex 2 on topics</i>		90. Number of participants per topic	91. Type de partenaire réalisant la formation <i>Use codes from question 87</i>
(1)		[] # total [] # men [] # women O (-88) Don't know	O (0) SPO O (1) Other (look at codes q87):
(2)		[] # total [] # men [] # women O (-88) Don't know	O (0) SPO O (1) Other (look at codes q87):
(3)		[] # total [] # men [] # women O (-88) Don't know	O (0) SPO O (1) Other (look at codes q87):
(4)		[] # total [] # men [] # women O (-88) Don't know	O (0) SPO O (1) Other (look at codes q87):
(5)		[] # total [] # men [] # women O (-88) Don't know	O (0) SPO O (1) Other (look at codes q87):

14. Benefits of Fairtrade <i>Only applicable to Fairtrade certified groups. For non certified groups, please skip this section. (except Q95)</i>	
92. Did you participate in at least one Fairtrade Producer Network event/ activity in previous calendar year?	O (0) No - O (1) Yes O (-99) NA (for counterfactuals)
93. Does your organization have influence on policy and regulation within Fairtrade?	O (0) None O (1) Weak O (2) Neither weak or strong O (3) Strong O (-99) NA (for counterfactuals)
94. Does your organization have influence on local, regional and international policy through Fairtrade ?	O (0) None O (1) Weak O (2) Neither weak or strong O (3) Strong O (-99) NA (for counterfactuals)

95. Does your organization have influence on local, regional and international policy in general? <i>NOTE : Also for counterfactuals</i>	O (o) None O (1) Weak O (2) Neither weak or strong O (3) Strong	
96. Did you receive support from the Fairtrade Producer Support / Producer Network services?	O (o) No - O (1) Yes O (-99) NA (for counterfactuals)	
97. Are you satisfied the FT Producer Support services you received from Producer Networks (including Producer Support services)	O (o) No - O (1) Yes O (-99) NA (for counterfactuals)	
98. Are you satisfied by the services received from Fairtrade Africa?	O (1) Disappointed O (2) Neither disappointed or satisfied O (3) Satisfied O (-99) NA (for counterfactuals)	
99. Do you believe that you benefit from participating in Fairtrade??	O (o) No - O (1) A little - O (2) A lot O (-99) NA (for counterfactuals)	
100. If yes please explain why?		
(1) Premium	O (o) No - O (1) A little - O (2) A lot	O (-99) NA
(2) Minimum price	O (o) No - O (1) A little - O (2) A lot	
(3) Market access	O (o) No - O (1) A little - O (2) A lot	
(4) Access to PSR services	O (o) No - O (1) A little - O (2) A lot	
(5) Improved group management	O (o) No - O (1) A little - O (2) A lot	
(6) Improved member performance	O (o) No - O (1) A little - O (2) A lot	
(7) Improved group cohesion	O (o) No - O (1) A little - O (2) A lot	
(8) Improved gender relationships	O (o) No - O (1) A little - O (2) A lot	
(9) Access to finance	O (o) No - O (1) A little - O (2) A lot	
(10) Others, specify :		

15. Agricultural system	
101. How long is the production cycle of cotton (number of days)	[_____] days/season
102. What amount of seeds is sown?	[_____] kg/ha
103. What is the dominant sowing method?	O (1) Manually direct seeding O (2) With sowing machine
104. What is the dominant labour system among group members?	O (1) Family labour/mutual assistance O (2) Family labour plus seasonal paid labour O (3) Family labour plus year-round paid
105. What is the (average) distance between collection point and ginner?	[_____] km
106. Type of fertilizers	Brand name :
(1) Chemical	
(2) Organic	
107. Types of pesticide s	Brand name :
(1) Herbicides	
(2) Fungicides	

(3) Insecticides	
(4) Pesticide bio	

Annex surveys: Type of activities of premium use

	Premium use
	Services to farm members
1	Farmer training in agricultural or business practices
2	Provision of agricultural tools and inputs
3	Implementation of on-farm best practices
4	Education services for members
5	Health services for members
6	Credit and finance services for members
7	Payments to members
8	Support for hired workers on farmers' farms
9	Other services to members
	Investment in producer organizations
10	Training and capacity building of Producer Organization staff, board, committees
11	Facilities and infrastructure
12	Human resources and administration
13	Services to communities
14	Education services for communities
15	Health services for communities
16	Environmental services for communities
17	Community infrastructure
18	Social and economic services for communities
19	Other services to communities
	Other
20	Premium not spent
21	Premium use not known

Annex surveys: Type of training categories

	GAP TRAININGS
1	Preparation of land
2	Planting
3	Weed management
4	Pest and disease management
5	Soil management (fertility, erosion)
6	Water management
7	Harvesting
8	Post-harvest handling/Transportation
9	Organic farming practices
	ENVIRONMENTAL TRAININGS
11	Integrated pest management
12	Safe storage and handling of pesticides and other hazardous chemicals
13	Environmental pollutants (training on PML)
14	Soil erosion prevention or reduction
15	Appropriate use of fertilizers
16	Efficient water usage
17	Safe waste water management
18	Sustainable waste management (e.g. composting)
19	Protection of biodiversity
20	Protection of rare or threatened species
	SOCIAL TRAININGS
21	Occupational health, safety & environment
22	Child labour and child protection
23	Hired labour conditions and rights
24	Gender
25	Cooperative principles [i.e. voluntary and open membership, democratic member control, member economic participation, autonomy and independence, education, training and information, cooperation among cooperatives, and concern for the community]
26	Cooperative member's rights
27	Fairtrade principles and standards (general)
28	Farm revenue management (farmer business training)
29	Income diversification
30	Literacy