

Fairtrade coffee, fair enough?

- *A study comparing Fairtrade certified coffee producers and uncertified coffee producers in Aceh Tengah, Indonesia*

Johan Fogelberg



Coffea arabica are dried in the sun in Takengo, Indonesia. Photo: J. Fogelberg

Fairtradekaffe, schysta bönor?

- *En jämförande studie emellan Fairtradecertifierade samt ej Fairtradecertifierade kaffeproducenter i Aceh Tengah, Indonesien.*

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Preface

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Abstract

This study compare if there is any differences between Fairtrade certified and uncertified coffee producers in Aceh Tengah, Indonesia. The aim was to compare the way the two groups of farmers produces their coffee and see if there were any differences between them, income, post harvest, production etc. During a visit in the district of Aceh Tengah, producers from both groups were given a questionnaire with questions about their farm and their production. The results of the questionnaires showed that the certified producers felt they had benefits being a part of a certified cooperative. Even with the experienced benefits the certified cooperatives gave the connected producers, like agronomy consultation and workshops the uncertified producers had a higher income from the coffee per hectare.

This study also indicated that introduction and presence of Fairtrade and the connection to the world market Fairtrade brings with it, has gained the entire area, for example with more stabile coffee prices.

Sammanfattning

I denna studie har en jämförelse gjorts mellan Fairtradecertifierade och ej certifierade kaffeproducenter i distriktet Aceh Tengah, Indonesien. Målet var att jämföra de två grupperna hur de producerade sitt kaffe samt vad som skilde dem åt i fråga om inkomst, efterskördshantering, produktion etc. Under ett besök i distriktet Aceh Tengah så fick båda grupperna av utvalda producenter fylla i ett frågeformulär med frågor angående deras produktion.

Resultatet från frågeformuläret var att de certifierade producenterna upplevde att de hade fördelar av att vara anslutna till det certifierade kooperativet. Trots upplevda fördelar som det certifierade kooperativet gav som till exempel odlingsrådgivning och workshops så hade de ej certifierade producenterna en högre inkomst från kaffet räknat per hektar.

Denna studie indikerar att introduktionen och närvaron av Fairtrade har gynnat detta område med en ökad närvaro av världsmarknaden samt att priset på kaffe har blivit mer stabilt.

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1. Introduction

1.1 Background

Today certification of grocery products is a growing market as a result of a demand of increased product information (Andersson & Gullstrand 2009). This indicates that the public interest about in what way the products that are consumed in the western world is produced.

Certifications mean that a product is valued after a specific standard (Andersson & Gullstrand 2009). As a response to the demand of more information about how products are consumed different certifications companies has started. The certifications will add extra features that normally are hard to find information about as ethical issues, social development, sustainable production etc. To increase the credibility of the certification the process is normally done by a third part that doesn't have any direct connection to the producer or the retailer.

This reports focus on the first part of the value chain of Fairtrade certified coffee. Most literature focus on the consumer's expected value and why consumers choose to pay the extra money that the certification adds to the price of the product. This report will focus on how the coffee producers experience the certification.

1.2 Objective and structure

The purpose of this thesis were to study the first part of the value chain of coffee, from the producer to exporter and compare if there is any differences between Fairtrade certified producers and uncertified producers. The questions to be answered were;

- What kind of benefits does the certification give the producers?
- Who do the producers experiences Fairtrade?
- Does the technology according to handling/post harvest differ between the organized and unorganized farmers?
- Do certified farmers have better quality/price of the final product then the uncertified farmers?
- Describe the first part of the value chain for coffee from certified/uncertified farmers, from producer to exporter.

The thesis is divided in to two parts, one theoretical part and one interview part. In the theoretical part coffee in general is presented in terms of botanical features, history, processing and so on. After that is a section about Fairtrade and the Fairtrade certification system.

2. Theoretical background

2.1 Coffee

2.1.1 Botanical features

Coffea spp belongs to the Rubiaceae family and covers more than 6000 species mostly trees and shrubs, it's a lignified, evergreen perennial that can be up to 10 meters high (Coffee Research Institute 2001-2006). The two most important species of *Coffea spp.* is *Coffea arabica*, commonly called Arabica coffee, and *Coffea canephora*, commonly called Robusta coffee. Another economic important species in the *Coffea* family is *Coffea chichona sp.* which is used for extraction of quinine (Bigger et al 2007).

Coffee requires access to water during the entire year to compensate for the evaporation in the evergreen leaves. *C. arabica* can mostly be found at higher altitudes in the tropics at 1000 – 2000 meters above sea level. An average temperature of 15- 25°C, an annual rainfall of 1100 – 2000 mm and 3-4 months of dry season is ideal for *C. arabica*. *C. arabica* can tolerate longer periods of drought if the temperature is lower. *C. arabica* can also be found at lower altitudes in the edges of the tropical area where the winter season is cooler and drier. At lower altitudes the plant will become more vulnerable to pests, such as coffee rust. High temperatures > 28°C will reduce the yield and temperatures <7°C will deform new shoots. More wet conditions can be tolerated as long the soil provides good drainage. *C. arabica* prefers deep light fertile soils with a pH < 7 which is typical for volcanic soils in the equatorial areas. The roots can penetrate down to 3 meters and provide the plant with water during the dry season. It is possible to grow *C. arabica* in more shallow soils, but this makes the plant more sensitive to drought stress under the dry season and extra irrigation could be needed during that period. The roots cannot penetrate heavy soils like with clay and the plant is intolerant to “wet feet’s” (Bigger et al 2007).

C. canephora has a shallower root system and is more tolerant to wetter conditions and therefore more intolerant to dryer conditions as compared to *C. arabica* (Bigger et al 2007).

C. canephora is adapted to the warmer climate (24-30°C) of the tropical lowlands (0-1000 meters above sea level) and is less tolerant to lower temperatures than *C. arabica*, and temperatures < 10°C will damage the plant. Both species of coffee are easily damaged by strong winds and hail (Bigger et al., 2007, ICO n.d a).

The end of drought stress triggers the flowering to start in the beginning of the wet season. Light levels strongly influence the flower initiation of the plant. Higher doses of radiation will give more

flowers. After pollination the bean is ready to be harvested after 6-9 months depending on the weather. During the wet season the vegetative growth is at its maximum as well as the growth of the beans. These events place big demands on the tree and the root system. The coffee plant is not well adapted to handle regulation of the amount of produced beans. The amount of beans on the plant is regulated by pruning the plant. If not pruned, the plant will easily overproduce beans and the quality will be affected in a bad way. Overproduction of beans will also weaken the plant and make it more vulnerable for pests. (Bigger et al 2007).

C. arabica is indigenous for the highland forests of Ethiopia and was first described by Linnaeus in 1753 (Bigger et al 2007). *C. arabica* 'Typica' has the biggest economical value and dominates around 80 % of the world market. The second most important species is *Coffea canephora* with around 20 % of the world market coffee (Coffee Research Institute 2001-2006). *C. canephora* was discovered in the late 19th century in the central parts of Africa; today Uganda and Congo (Bigger et al., 2007).



Picture 1. Picture show a coffee farm with shading trees outside the town of Takengon, Aceh Tengah.

Photo: Johan Fogelberg

2.1.2. History

The Arabica coffee origin is from Africa, most likely today's Ethiopia (ICO n.d b). The most common legend says that a shepherd, 600-800 AD, found a shrub with beans that sharpened his senses when eating them (WU 2010).

The coffee spread from Ethiopia to Egypt, Arabia and Yemen where it fast becomes a part of the daily life. Coffee has been cultivated in Yemen since the 15th century and most likely also before that. The first coffee houses started in Yemen and soon become the place for people to meet and enjoy the coffee and other peoples company and a place for making business in a more relaxed atmosphere (WU 2010).

The Arabs made their coffee by boiling the whole fruit for a long time, and then drink the decoction. It was first in the early 16th century that the Turkish started to roast the beans before making a beverage of it, black coffee. During the 16th century the two forms of coffee beverage co-existed, but during the late 16th century the black coffee was widely spread over the Arabic world and then become the far most popular drink (WU 2010).

2.1.3. Coffee in Europe

The first description in text of the coffee beans was printed in 1574 by the famous Dutch botanist Carolus Clusius (WU 2010). During the early 17th century import of coffee to Europe started and it was sold believed to have medical qualities. In 1683 the first coffeehouse of Europe opened in Venice. The most famous one, *Caffe Florian* in Piazza San Marco, opened in 1720 and are still running today.

In the 17th century the coffee shops spread all over Europe and the French, Dutch and English started to trade coffee with the Arabs. During that time all coffee was sold from the Arab countries and there was forbidden to trade with plants or fertile beans.

During late 17th century the coffee become really popular in Europe and the political problems in the Arab countries treated the coffee import. The European countries started to try to get their hands on plants and beans for trading. The Dutch won the race and in late 17th century the first coffee was planted at Batavia (now Jakarta, Indonesia) (WU 2010) which during that time was a Dutch colony.

2.1.4. Coffee today

Today coffee is the most popular beverage and about 400 billion cups of coffee are consumed every year (WU 2010), which make almost 60 cups of coffee for each person on the planet.

The global industry of coffee provides work for more than 20 million people around the world. Coffee is also one of the most important trade products for many of the developing countries where the coffee production can be up to 80 % of the country's export and income (WU 2010).

2.1.5. Coffee in Indonesia

In 2007 coffee plantation in Indonesia covered approximately 1 065 500 hectares of land (AICE 2007) and produced about 510 000 tons of coffee. That makes Indonesia to the 5th greatest producer of coffee in the world (The Jakarta Post 2008). 85 % of the coffee is produced in the southern hemisphere on Java and in the Indonesian archipelago (AICE 2007). Almost 80 % of the coffee production is of the Robusta bean (Bootsnall Travel Network 2008). The Robusta were introduced to Indonesia by the Dutch in the late 19th century. Robusta were resistant against coffee rust which arrived to Indonesia in 1877 (Bigger et al 2007) and wiped out most of the Arabica coffee. The Robusta cultivars who are more adapted to growing in lower altitudes were replacing the Arabica in the lower altitudes and Arabica was grown in higher altitudes where the coffee rust did not strike as hard (SCAI n.d a).

The last 20 % of the coffee production is Arabica coffee, it is produced on the bigger islands of Indonesia; Sumatra, Java, Bali etc that are big enough to get the altitudes over 1000 meters (Bootsnall Travel Network 2008, SCAI n.d b).

2.1.6. Production and processing

Most of the coffee in Indonesia (90%) is produced by small-holders with farms at the size of 1 hectare or less (SCAI n.d b).

The ripe fruit of coffee is called "cherry". The cherry is ready to harvest when it has become bright red. All Arabica coffee of Indonesia is collected by hand by the farmers. The cherries ripen at different times on the plant and only the ripe one should be picked to get the highest quality of the coffee. During the harvest season the farmers have to harvest the coffee several times (SCAI n.d b).

The plants are pruned to make the harvest easy and are pruned every year to make the plant produce new branches. It is only new tissue that can produce cherries (Coffee Research Institute 2001-2006).

The most common way of processing coffee is by dry processing. At dry processing the whole cherry is dried in the sun or mechanical. When the cherry are dry the dried fruit is hulled by a hulling machine to get the green bean (Bigger et al 2007).

For higher quality coffee wet processing is used, “giling basah” in Indonesia. This is the most common method used in Indonesia for processing the Arabica beans (SCAI XX).

After harvest the cherry is mechanically pulped to take away the soft tissue of the cherry (SCAI n.d b). Later the pulped bean is fermented over night to get rid of the mucilage layer. Then the bean is dried in the sun to a moist contain of 30-35 %. Then the bean is hulled in a hulling machine to get the green bean. The wet processing gives the coffee less acidity and increase the body. The bean will be dried in the sun again to a moist content of ~12%. Finally, the beans are ready for export (Bigger et al 2007, SCAI n.d b).

2.2 Certification

Certification means that a product will be valued from a special pre-determined standard (Andersson & Gullstrand 2009). Certification of food is a growing phenomenon that has been coming as an answer on consumers’ demands of increased product information. Certification is mainly used to signalize that a product contains specially qualities that normally is difficult to find, for example social responsibility (environment-friendly, social development and health) or a special geographical ancestry. To make the certification more believable the certification process is made from a third part who’s not having direct connections to the seller or the buyer of the product.

Certification to consumers is called free marking (Andersson & Gullstrand 2009). Free marking is used to make niche markets that work parallel to the conventional market. Examples of certifications are Marine Stewardship Council, Rainforest Alliance and Fairtrade. Fairtrade is the most common marking in the world (Johansson 2009).

2.3 Fairtrade

2.3.1 About Fairtrade Labelling Organization (FLO)

Fairtrade is a non-profit, multi-stakeholder organization with 24 member organizations worldwide at 58 countries (FLO 2009a).

Fairtrade Labelling Organization (FLO) was founded in 1997 and works as an umbrella organization that connects 19 marketing initiative in 23 countries. (Fairtrade Sverige, 2010a) FLO is a producer network that represents the Fairtrade certified producer organisations in Africa, Latin America and Asia. At the moment FLO consists of 827 Fairtrade certified producer organizations in 60 countries. This affects about five million producers, workers and there families.

FLO develops the Fairtrade criteria and as support to the producers and works wit supporting the around thirty regional representatives in almost 50 countries. The regional representatives work with support the local producer organizations and provide them with information, consulting, education and help them to mach the international Fairtrade criteria. They also coach the producers to find new markets for there products (Fairtrade Sverige, 2010a).

2.3.2 About FLO Cert

FLO Cert is owned by FLO but works as a independent international certification organ (Fairtrade Sverige, 2010a).FLO Cert is responsible for the inspections and the certification of the producer organizations and the exporters/importers. FLO cert has about 120 inspectors and around 80 of them works with the control of the producer organizations. FLO Cert follows the ISO 65-standard, the leading norm for producer organisations. This makes the organisation independent and transparent.

2.3.3. Fairtrade standards

The vision of Fairtrade is a world in which all producers can enjoy sustainable livelihoods, secure, and fulfill their potential and take control over their future (FLO 2009a). The Fairtrade mission is to connect disadvantaged producers and consumers, strengthen their position, promote fairer trading conditions and empower producers to fight poverty and increase their control over their lives.

For producers Fairtrade is unique in offering four important benefits for producers: stable prices, a Fairtrade premium, partnership and empowerment (FLO 2009a).

Fairtrade standard for coffee acts as a safety net against the unpredictable market (FLO 2009b). The Fairtrade standards pays the producers a floor price (Fairtrade Minimum Price), this floor price acts as

a safety net against an unpredictable market. The floor price will cover the average costs of a sustainable production (FLO 2009c). On top of this floor price the producers can get an extra minimum differential if they have a organic production. On top of the floor prices the producers gets the Fairtrade Premium. This social premium is used by the producer organization for social and economical investments in the community and the organizational levels.

Today the Fairtrade certification is currently open for small farmer organizations witch the own and govern. The certified member organization must work democratically and all the members must have equal rights to vote (FLO 2009b). Democratic structure and transparent administration in order is needed to be certified as a small group (FLO 2009c).

2.3.4. The Fairtrade certification process

The certification process starts when a producer organization applies for the Fairtrade certification at FLO Cert. If the request is accepted by FLO an initial inspection is made by a FLO Cert inspector (Fairtrade Sverige, 2010b). After the first inspection a report is made and send to FLO Cert for evaluation and the it is decided if the applying producer organization has the possibilities to become certified or not.

To be able to get the certification the producer organization need to meet the minimum requirements. This includes inspections of the central office and random inspections at some of the connected members. When the initial inspections are done the certification cycle starts with yearly inspections of the organization and demands on gradually improvement of the standards (Fairtrade Sverige, 2010b).

If the producer organization fails in meet up with the Fairtrade standards they get a comment about it and a demand to adjust the matter with in a specified period of time (Fairtrade Sverige, 2010b). If the organization time after time don't deal with the problems pointed out by the inspections they will lose their certification. If the problems are of more serious character the organization can be suspended right away.

The inspections are announced in advanced, because an inspection could take days to do and the inspectors have to take part of large amount of documentation that needs to be prepared by the producer. This is to make a mutual respect between the producers and the inspectors. There is one exception to the pre announced inspections, that is when there is suspicion about that a certified organization is violating against the Fairtrade standards (Fairtrade Sverige, 2010b).

2.4. Coffee cooperative - Baitul Qiradh Baburrayyan (KBQB)

The chosen coffee cooperative in this research was the Baitul Qiradh Baburrayyan (KBQB). KBQB is located in Takengon, the capital town of district Aceh Tengah in the highlands of central Aceh. KBQB started in 2004 with 650 members in 17 villages and had in January 2010 about 5 900 connected members in 117 villages. (Rizwan, 2010). The cooperative administration, including the cooperative owned factory provides around 250 people with work during the year.

To be able to join the cooperative at least 20 farmers from the same village have to be interested to join. Then the cooperative will then make a visit and inform about the cooperative. When joining the cooperative there is a mandatory fee of Rp 25 000 (1,7 €) and then there is a fee of Rp 10 000 a month.

There are collectors connected to the cooperative that visits the producers and buy the coffee beans after they have been harvested and the first part of the processing is made.

The collected beans are brought to the KBQB's factory in Takengon. At the factory the beans are dried in the sun to a moist content of ~ 40 % then hulled to get the green bean. Then they dry the green bean in the sun to a moist content of ~12 %. After the final sun drying the beans are graded for export or local market quality. The beans with export quality are sent to the port in Medan for export.

The mean area for a farm in the cooperative is 1 ha and the mean yield is about 650 kg green beans/ha.

KBQB are since December 2007 Fairtrade members and collected Rp 3.9 billion (~ US \$ 450 000) from the Fairtrade premium system during 2009. The fee for the certification is US \$ 5000/year. KBQB has also organic certifications that costs Rp 230 000 000 (~US \$ 26 500)/year (Rizwan, 2010).

3. Methods

The selected area for the research was the district Aceh Tengah, one of Indonesia's most isolated districts, located in the middle of the province in central Aceh (Sörgärde 2008/2009 (p18)). Aceh Tengah is one of two districts in Indonesia, where the famous Gayo coffee is produced. The region is supposed to be one of the best spots in the world for growing Arabica coffee with its high latitudes and volcanic soil.



Picture 2. Picture show the location of district Aceh Tengah.

The chosen method to collect the data from the farmers was to make a questionnaire for the farmers to fill in. The questionnaire was designed with help from the supervisors at the university that have knowledge about the situation in the specific area. The questionnaires were translated to Bahasa Indonesia by the supervisors at the institution at the faculty. In the translation process, unfortunately questions 27-31 disappeared.

Data would be collected from 20 Fairtrade certified farmers connected to the KBQB and 20 uncertified farmers that not were connected to any Fairtrade certified cooperative. The farmers and collectors were selected from four sub districts of Aceh Tengah. The questions asked can be found in appendix 1. Though due to problems with finding enough producers willing to participating and some questionnaires incorrect answered the numbers of useful answers were 17 certified and 18 uncertified producers. This also affected the plan of which districts the producers would be collected from.

Data should also be collected from two exporters, one from KBQB and one non Fairtrade certified exporter and four village collectors, two village collectors from KBQB and two village collector not connected to KBQB, though due to problems with the translation, the results were not used in this investigation.

3.1. Collecting data in the field

The Aceh Tengah main town Takengon was the base during the stay where KBQB has their office. The KBQB provided the contact with their farmers and also not certified farmers in the area. The farmers were visited at their farms or when working at others farms. During the stay in Aceh Tengah a workshop arranged by KBQB were visited to meet certified producers. When meeting the farmers the purpose of the research were introduced by our translator, a student from the agricultural faculty, and then the purpose of the questionnaires were explained. The staff from KBQB was very helpful at the visits.

4. Results

The age and family size do not differ especially between the two groups of producers in this study. Not either the size of the coffee gardens and the age of the trees.

	Certified	Uncertified
Age	43,8	41,7
Hectares	1,4	1,3
Age trees	10,1	10,8
Family size	4,9	5,5

Table 1. Mean values about the producers.

4.1. What kind of benefits does the certification give the producers?

Except the Fairtrade premium the cooperative gain from selling the coffee as Fairtrade, the certified cooperatives provides connected farmer's different services. The services include agronomy consulting, workshops etc. As can be seen in figure 1, the most important reason to the producers to join the Fairtrade certified cooperative was to get a better price (48%) for the produced coffee beans. Second biggest reason was to be a part of the community (24%) attracts the producers and third place the Fairtrade premium (16%). The possibilities to get access to better technology (12%) were fourth most common reason to join. The reason to get a micro loan (0%) was not a reason to join the cooperative.

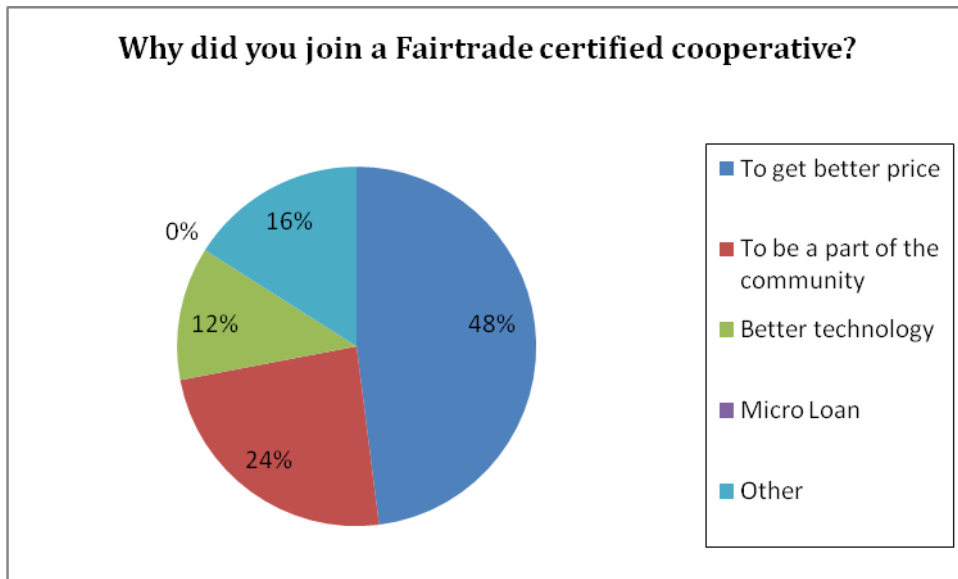


Figure 1. The figure shows why the producers have joined the Fairtrade certified cooperative. The producers that choose “Other” (16%) assigned that they joined to get the Fairtrade premium in the comments to the question. The farmers could mark more than one option.

4.2. How do the producers experience Fairtrade?

The certified producer’s expectations of the certified cooperative match their experienced benefits. The producers answered in figure 2 that they have experienced better agronomy consulting, there is to be seen in figure 3 that the producers experience the agronomy consulting as a big factor to get a higher yield. The figure shows that the most important reason for the producers to join a certified cooperative was to get a better price (44%) for the produced beans. To get better agronomy consulting (23%) gets in second place then followed by premium system (16%), better processing technique (10%), and better opportunities to sell the beans (7%).

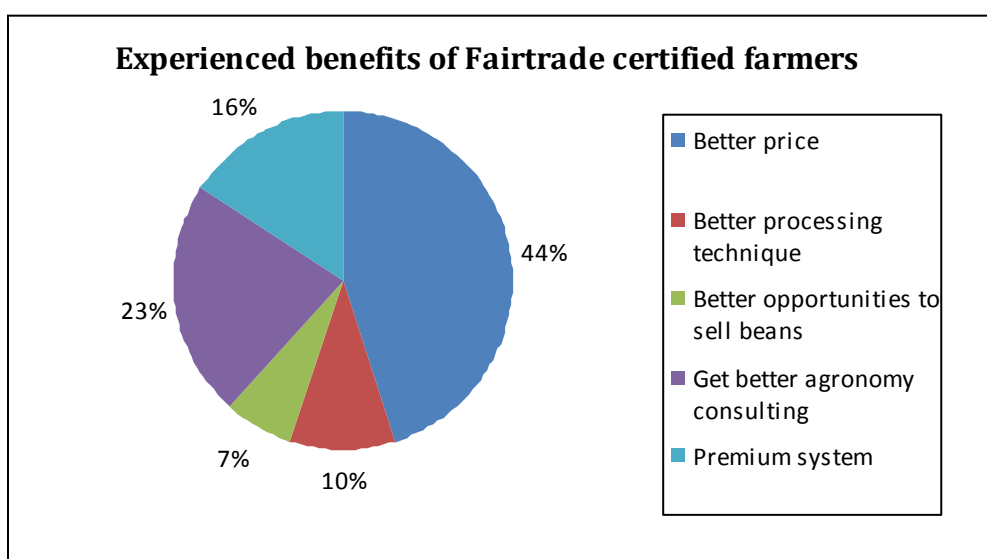


Figure 2. The figure shows the experienced benefits of the Fairtrade certified producers. The producers could mark more than one option.

At the question which of the services provided by the cooperative that had helped the connected producers to increase the yield, the producers valued the agronomy consulting (56%) highest, then better technology (26%) and then the workshops (18%).

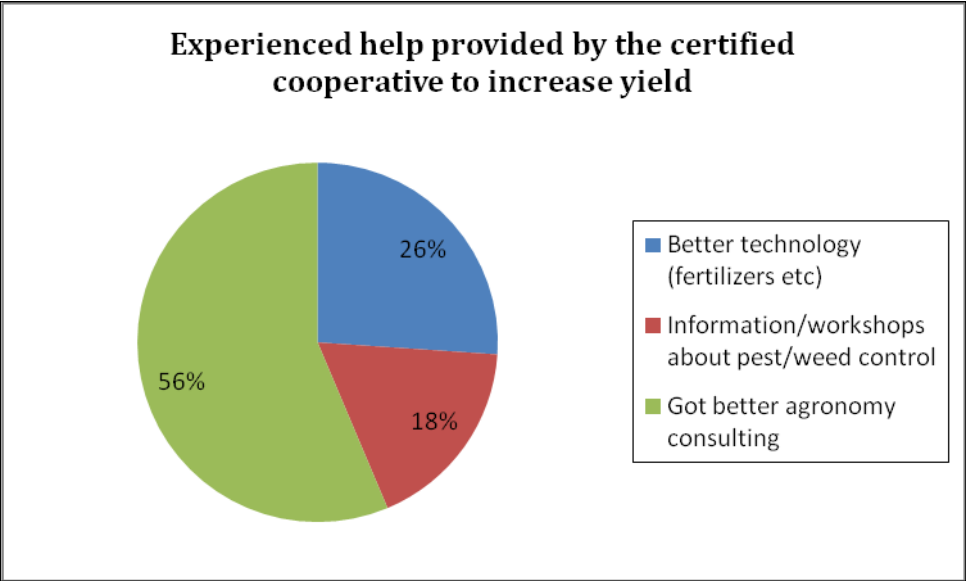


Figure 3. Experienced help from the certified cooperative to increase the yield. The producers could mark more than one option.

4.3. Do certified farmers have better quality/price of the final product than the uncertified farmers?

The results show in this research that the producers not connected to the Fairtrade certified cooperative have a higher mean profit (14.64 million Rp) than the certified producers (4.94 million Rp), see Figure 4. In figure 4b, the diverging values have been corrected. The values changed some, but not so much.

The certified producers' production costs (2.76 million Rp) are a bit lower than the uncertified producers (4.03 million Rp), this could indicate that the agronomy consultation provided by the certified cooperative has gained the connected members. But the low rates of answers should be considered before any conclusions are made.

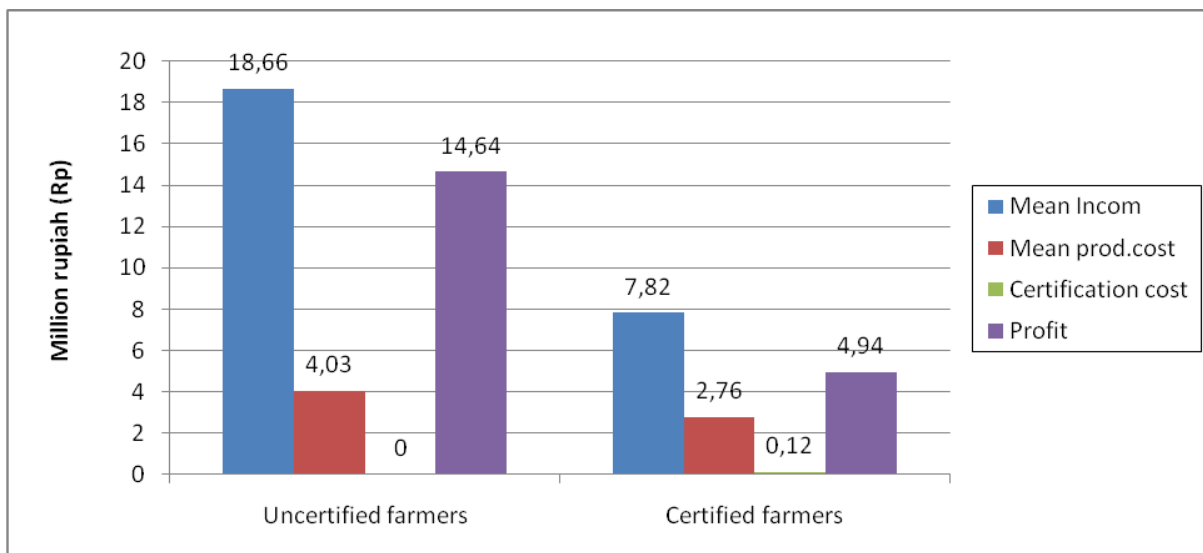


Figure 4. Differences between uncertified and Fairtrade certified producers with the parameters of mean income, mean production costs, certification costs and profit. All values are based on one hectare.

Income; Standard deviation for the uncertified producers is 19.57 million Rp and 5.2 million Rp for the certified producers. P-Value = 0.086.

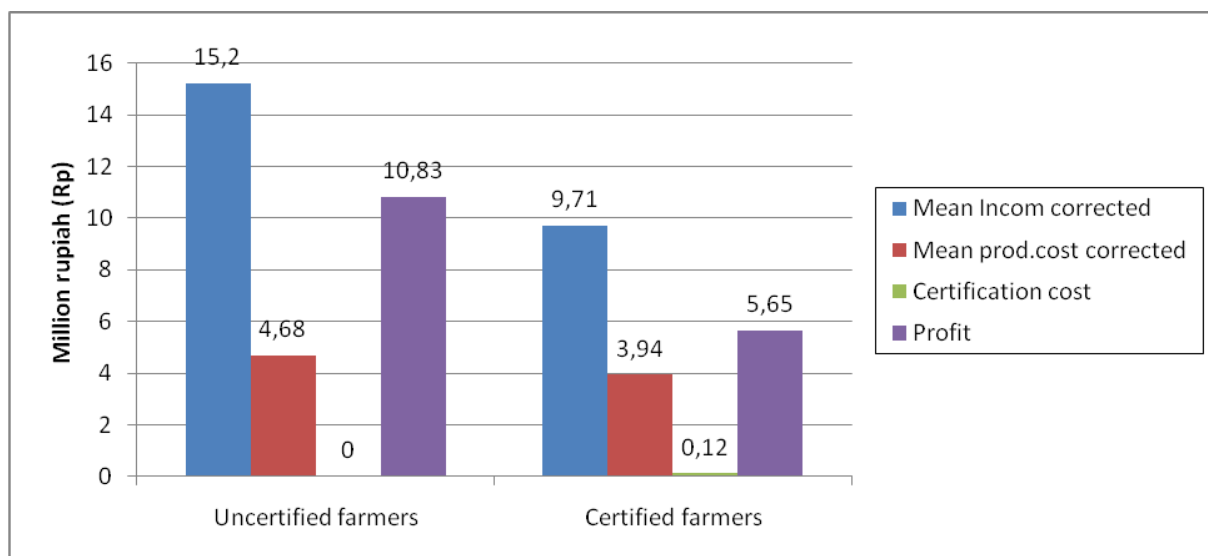


Figure 4b. Corrected values after some of the diverging values have been removed. All values are based on one hectare.

Income; Standard deviation for the uncertified producers is 13.8 million Rp and 9.7 million Rp for the certified producers. P-Value = 0.246.

In fig 5, the majority of the producers, certified (59%) as uncertified (76%), produce other crops than coffee to gain an extra income. Produces crops are; chili, durian, musket, vegetables, cacao, tomatoes, vanilla, oranges etc.

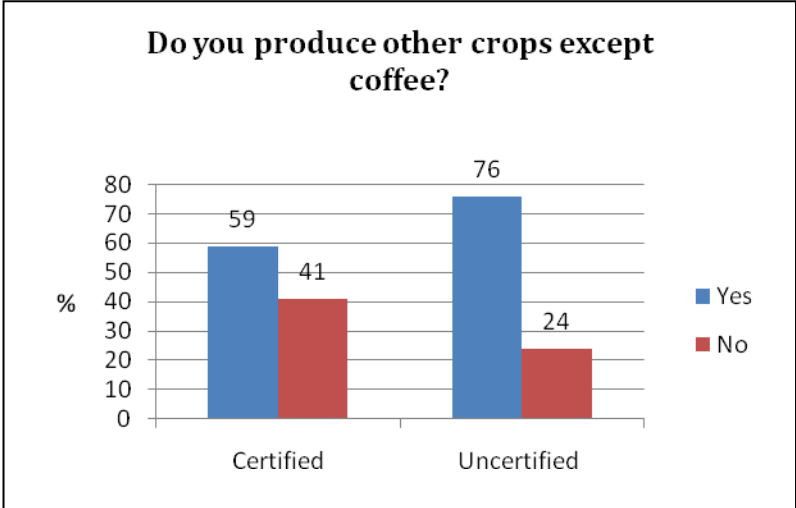


Figure 5. Percent of producers shown that grow other crops than coffee to get an extra income.

4.4. The first part of the value chain for coffee from certified/uncertified farmers, from producer to exporter.

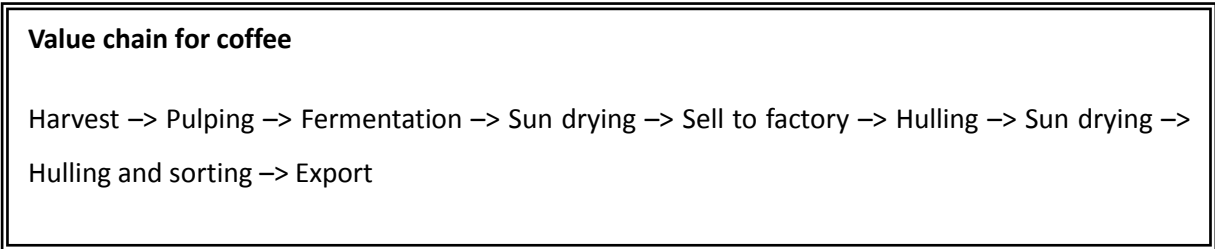


Figure 6. The figure describes the first part of the coffee value chain.

Pictures down under illustrate the first part of the value chain of the production.



Picture 3. Cherries are harvested by hand.



Picture 4. Cherries are being pulped.



Picture 5. Sundried beans.



Picture 6. Dried beans



Picture 7. Beans are being hulled.



Picture 8. Hulled beans.



Picture 9. Beans dry in the sun.



Picture 10. Beans are hulled to get green bean.



Picture 11. Sorting of green beans.



Picture 12. Packing of sorted green beans.

4.5. Does the technology according to handling/post harvest differ between the organized and unorganized farmers?

No, during the visits at the producers in this research, the way they handled or the way the post harvest were done did not differ between them. At the matter to know if the beans had dried enough both groups determined the moist content of the bean “by hand” and visual signs as cracked skin on the beans.

5. Discussion

5.1. What kind of benefits does the certification give the producers? / How do the producers experience Fairtrade?

Comparing the Fairtrade certified farmers with farmers without certification; the certified farmers will receive some benefits from the Fairtrade organization. The benefits are a minimum price, better opportunities to sell the beans, better agronomy advice and a premium system. As said in the Fairtrade standards, the premium should be used for develop the community and to build roads, schools etc. This kind of investments will also affect the entire district where the farmers live. So the Fairtrade premium will not just give benefits for the certified farmer, but the other people living in the same districts as the certified once will also have benefits from it.

A cooperative is a good solution for the farmer to organize when just a single farmer do not produce enough amount of beans for the bigger market. Through the cooperative solution the farmers can get bigger quantities of beans together and increase their possibilities to get a better price. In this area, with its small-scale farming, the cooperative is not just a way to increase the amount of coffee to export but it also has a social value for the connected farmers. Through workshops, arranged by the cooperatives, the farmers get a forum where they can meet and exchange experiences and get input from each other. The subject of the workshop can, for example be soil improvement and weed control with mulching. The Fairtrade system has brought back a lot of money to this specific area. Each year the cooperative has a big meeting with representatives from the different villages, and at this meeting they decide what the Fairtrade premium should be used to. This far the cooperative has gained around US \$ 880 000 in Fairtrade premiums, and that’s just in two years (Rizwan, 2010). This far the premium money has been invested in the cooperative factory, public facilities, roads, mosques, cooperative storage and has been used for price compensation.

These rural parts of Indonesia have been affected a lot by the last 30 year by the long conflict between the rebels of Aceh Movement and the Indonesian government. (Röhmer, 2008). The infra

structure needs improvement with better roads for easier transportation and infra structure as reliable electricity and internet connection.

Before Fairtrade entered the area there were coffee cooperatives in the villages, but they did not work as well as they do these days. The members did not have the same information about the prices at coffee and the price differed a lot between days and weeks. The coffee price has been more stable after the introduction of Fairtrade, and the quality of the coffee has increased. This has also affected the producers not connected to Fairtrade. The presence of Fairtrade has made a change for the better for the whole community (Yusya Abubakar and Ashabul Anhar, 2010).

As seen in figure 1, 2 and 3, all of the answers match each other quite well, and all of the farmers were satisfied with the certification. It's difficult to analyse if this really reflects the true picture of the situation, as the presence of the KBQB staff at the visits/meetings could have affected the answers.

Even if all of the asked certified producers answered that they were satisfied with the certification some of the staff at the cooperative that there sometimes were hard to follow the certification standards. This resulted in that some of the cooperative connected producers did not register all of their land to the cooperative. Especially when new coffee gardens were started, there could be problems with controlling the weeds between the new small coffee plants without herbicides.

A problem is that the rules for the certification of the producers are designed in the industrial countries, which make it hard for the producers to influence the process (Andersson & Gullstrand 2009). It should also be kept in mind that these certifications standards are almost the same as in the industrial world. It's a kind of paradox; Fairtrade operates in less developed countries to help the people in these areas to get a better life situation, but at the same time the producers in these areas are supposed to meet the same production standards as in the industrial world.

Andersson & Gullstrand (2009) conclude as an effect of these rules, not all producers have the possibility to join Fairtrade. Factors such as the level of development in the specific country, and the size of the specific farm contribute to the possibilities to get certified. This means it is not only poor people taking a part of Fairtrade. A certification process is quite expensive and makes extra costs for the farmer. There are fees to FLO to use the market "Fairtrade", on their products, and some costs for adaptation to meet the demands of production. Only the one who has enough money to join a cooperative or a member organization can take a part of Fairtrade. There has been some criticism against that the certification of producers only can be done through producer organizations or cooperatives. If a producer is not a member of an organization he/she cannot be certified. Another conclusion by Andersson & Gullstrand (2009) is that the cooperatives or organizations that will be

certified tend to be the strongest and most established on the market and not the most marginalized producers. This does not mean that the producers that will be certified are not poor, just that there will always be producers that are even poorer.

Studies have shown that there is a positive effect on the income for certified farmers when the world market price is low to compare with uncertified farmers. When the world market price is the same as or higher than the Fairtrade minimum price the difference between certified and uncertified farmers is expected to become smaller (Johansson 2009).

5.2. Do certified farmers have better quality/price of the final product than the uncertified farmers?

The frequency of the answers about their production costs were low, just 7/18 of the uncertified and 6/17 of the certified producers. But when comparing the costs for the production, uncertified vs. certified a small difference can be seen in the cost of the certified farmers. Their production costs are a bit lower, but not much. This might suggest that they have got better agronomy consultation. But the low frequency of answers makes it hard to make any conclusions about the situation in this specific area.

5.3. Does the technology according to handling/postharvest differ between the organized and unorganized farmers?

The way the asked producers handled their coffee did not differ between the two asked groups. Why the handling and post harvest did not differ was because of the small-scale production in this area. In the production, there are not so many options in what way they can produce their coffee when the mean area for the producers in this study is 1,35 ha. Most of the visited producers employed some people during harvest. After harvest the cherries were pulped at the farm and fermented before they dried it in the sun. After drying the beans were sold to a collector that in his turn sold the beans to a processing factory where the beans were hulled, dried, and sorted before export.

5.4. Describe the first part of the value chain for coffee from certified/uncertified farmers, from producer to exporter.

There were possibilities to sell the coffee in all the different stages to have someone else to do parts of the processing, for example pulp or hull the beans, so then the producer could sell the finished product by themselves. But the option shown in the box was the most common way of doing it.

All stages of the production at the farm are done under very simple conditions. During the visits at the coffee gardens and processing units the way the beans were picked and processed did not differ. As can be seen in the pictures above, the conditions are very simple. The cherries are picked by hand,

and then pulped in a simple machine at the farm. The pulped bean is fermented over night in a tank and then dried in the sun on a tarp in the sun. The beans are turned by hand to make all beans dry.

5.5. The Gayo coffee

The Gayo coffee with its special character and premium taste is considered one of the best coffees in the world. The problem for the district today is that they, the “gayo people” don’t have the right to use the name “gayo” because it’s registered as a Dutch trademark. There is a process started to get the name back to the farmers by register the name as a geographical indicator, this will make it impossible for any company to “own” the name “gayo” (Bootsnall Travel Network 2008).

When the producers can use the geographical indicator to indicate the origin of the coffee, then this region can seriously start to promote their special product. With a geographical indicator, the area could be a stronger actor at the global coffee market. Collaboration between the already operating producer organisations could get big scale benefits such as larger quantities of coffee and local quality and a organized export from the area. If the producers get the right back to use “gayo” they will be less depending on certifications to reach the world market. This could be a way of letting more of the producers in the region to be a part of the bigger market without the extra expenses of the certifications. With already big clients that crave for the Sumatran Gayo coffee as for example the coffee giant Starbucks the future for the Gayo coffee looks good. Today the Fairtrade coffee is already a niche product. The Gayo community should work and develop the niche for their special coffee.

The problem today is that many of the worlds dominating companies in these days demand that the coffee they buy should be certified in some areas like Fairtrade and organic. The certifications are expensive matters for the cooperatives. For example, the KBQB pays on yearly basis US \$ 5000 for the Fairtrade certification and Rp 230 000 000 (~ € 23 000) for the organic certification. This fee tends to disfavor the smallest producers as they get relatively higher certifications costs (Andersson & Gullstrand 2009).

Many of the farmers, certified as uncertified, had other work beside the coffee production as other sources of income. Living on only the coffee made a mean income for the farmers around US\$ 2 a day, which is the line for poverty sat by the World Bank. (World Bank, 2010)

5.6 Methods of collecting data

5.6.1 Questionnaire and the collected data

The data from the coffee producers was collected with a questionnaire. In the field some problems emerged because some of the farmers did not understand it; they were not used to that kind of questions. Less than 1/3 of the asked farmers did know what the production costs for their farm were, but almost 4/5 knew how much the income from the coffee was.

Important to remember when doing this kind of research is to really try to understand the situation and design the questions so they will fit the targeted group of people. In this specific area many of the people live close to the poverty line, and the general income for a worker in the field is below 1 000 000 Rp (~80€) a month (Abubakar, 2010). Most of the farmers participating in this research had an extra income on the side of the coffee farm. Most of them produced vegetables and fruits to get an extra income, and some of them had a shop or restaurant in town as a complementary business.

5.6.2 In the field

The way the data was collected in the field has affected the way the producers has answered the questions. During the stay in Takengon, staff from the KBQB arranged the visits at the different producers, and both producers connected to the cooperative as well as non connected producers were contacted. In the latest case, the presence of the staff from the KBQB was not always welcome. Some of the asked producers were not comfortable with answering questions about their production and the way they run their business in the presence of the representatives from KBQB.

The best option should have been to have a guide with good knowledge about the local area and the producers. Then the visits at the different farms would have been more neutral and hopefully the producers would be able to speak more freely without the feeling of being overheard by the cooperative.

A good interpreter would also help minimizing the language problems. Many of the producers did not understand the questions, and there were some problems with the translations between the producers and the one asking the questions.

5.6.3 Analyzing the answers

Because of the few and wide range of answers it is hard to analyze the collected data. Some of the producers had just established their coffee gardens and had almost no cherries to harvest yet, and some of the other farmers had coffee gardens that were on their peak of production. Some of their answers indicate that the farmer had not understood the questions and not answer them in the

correct way. Another problem that occurred as mentioned in “Methods” the last questions (#27-31) of the uncertified producers were lost during the translation, they were all at the last page of the questioner. This was observed first after already one day in the field.

5.7. Production

The ways the farmers grow and produce their coffee do not differ so much between the certified and uncertified farmers. After harvest they pulp, ferment and then dry the beans. Then the certified farmers sell their beans to a village collector connected to the cooperative and the uncertified farmers sell their beans to some local collector. The collector could belong to a certified cooperative. Some of the farmers has their beans processed, hulled, in a factory and then they sold the beans by themselves to an exporter for example.

Most reports about Fairtrade and other certifying organizations is just done by analyzing the end of the supply chain of the products, the one were the consumer is in direct contact with the product in the store, and similar investigations as this are scarce. Most of these reports are just studies of economical questions that do not have so much to do with the actual producer. When the product is bought in the store, it does not matter what price the consumer pay, the producer has already got their payment for the product.

6. Conclusion and recommendations

The conclusion of this report is that Fairtrade seems to have had a positive affect on the specific area since the first certifications started. As a result of the presence of Fairtrade the knowledge of the world market has increased in the region, not only by the certified producers but also to the producers not connected to Fairtrade. The coffee price has become more stabile in the region since Fairtrade were introduced to the region.

The certified farmers experienced that they had benefits as a part of the Fairtrade system, and were pleased with the services the certified cooperative provided them with. But even with the experienced benefits as agronomy consulting and higher prices the uncertified farmers in this research had a higher income from their production.

When looking closer to the first part of the value chain, from harvest to exporter, the two groups of producers did not differ from each other. The production in this area is done during very basic conditions and there is not so many different ways to operate the farm during these conditions.

As mentioned earlier the frequency and the wide range of collected data makes it hard to analyze the results. The result presented in this report should be seen as an momentarily picture of the situation in the district.

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8. Appendix

8.1 Questions Certified farmers

General questions:

Name:

Age:

Family members:

Children/age:

Name of village:

Sub district:

Size of farm (hectares):

How many trees/hectare?

Average age of trees?

1. Are you a member of a coffee cooperative Baburrayyan?

- a. Yes
- b. No

2. How long have you been connected to the cooperative?

- a. <1 year
- b. 1-2 year
- c. 2-3 year
- d. 3-4 year
- e. 4-5 year
- f. >5 year

3. Why did you join the cooperative?

- a. Get better price for coffee
- b. Be a part of the community
- c. Better technology
- d. Micro loan
- e. Other

4. Do you feel like you are having benefits as a certified farmer?

- a. Yes
- b. No

4.1 If yes, what benefits?

- a. Better price
- b. Better processing technique
- c. Better opportunities to sell the beans
- d. Get better agronomy advice
- e. Premium system
- f. Other

5. How many works at the farm, including family?

- a. 1-2
- b. 2-3
- c. 3-4
- d. 4-5
- e. 5-6
- f. 6>

6. What are the productions costs for the coffee? (If you don't know, continue to question 7)

7. Do you employ people during weed control?

- a. Yes
- b. No

7.1 If yes, how many?

7.2 How much are the workers paid on daily basis?

7.3 How many days do they work?

8. Do you employ people during harvest?

- a. Yes
- b. No

8.1 If yes, how many?

8.2 How much are the workers paid on daily basis?

8.3 How many days do they work?

9. Do you prune your coffee plants by yourself?

- a. Yes
- b. No

9.1 If no, do you employ people during pruning?

- a. Yes
- b. No

9.2.1 If yes, how many?

9.2.2 How much are the workers paid on daily basis?

9.2.3 How many days do they work?

10. How many kilos/bamboo cherry do you produce in one year? (If you don't know, continue to question # 12) (If you can answer, continue to question # 14)

11. How many kilos/bamboo wet beans do you produce in one year?

12. How many kilos/bamboo dry beans do you produce in one year?

13. How many times to you harvest in one year?

14. How much each time? (Kg/bamboo)

15. Have your yield increased after joining the cooperative?

- a. Yes
- b. No

15.1 If yes, what factors has helped to increase your yield?

- a. Better technology (fertilizer etc)
- b. Information/workshop about pest/weed control
- c. Get better agronomy advice
- d. Other

16. Have the cooperative provided you help according to management of pests, weed control etc.

- a. Yes
- b. No

16.1 If, yes

- a. Information/workshop about pest/weed control
- b. Get better agronomy advice
- c. Other

17. Do you sell the beans as cherry?

- a. Yes
- b. No

17.1 If yes, what price do you get for your cherries? (Rp/bamboo, Rp/Kg)

18. Do you sell the beans as wet beans?

- c. Yes
- d. No

17.1 If yes, what price do you get for your wet beans? (Rp/bamboo, Rp/Kg)

19. Do you sell the beans as half dried beans?

- a. Yes
- b. No

16.1 If yes, what price do you get for your half dried beans? (Rp/bamboo, Rp/Kg)

20. What's the total income from the coffee in one season?

21. What do you do with the beans?

22. When do you harvest the cherry?

- a. Morning
- b. Afternoon

23. When do you pulp the cherry?

- a. Morning
- b. Lunch
- c. Afternoon
- d. Evening

24. How long is the fermentation?

- a. <3
- b. 3-6
- c. 7-9
- d. 10-12
- e. 13-15

25. How long do you dry them, if;

- sunny?
- cloudy?
- rainy?

26. How do you know when the bean is ready to sell?

27. How long after drying do you sell the beans to the collector? (days)

28. Are you satisfied with the Fair trade certification?

- a. Yes
- b. No

29. What do you think about the Fairtrade premium system?

- a. Good
- b. Bad
- c. Don't know

30. Do you know how the decision about the Fairtrade premium system is taken?

31. Do you know where the decision is taken?

- a. Yes
- b. No

32. Do you think the decision about what to do with the Fairtrade premium money works democratically?

- a. Yes
- b. No

33. Do you produce more crops than coffee?

- a. Yes
- b. No

31.1If yes, what crops?

34. Can you estimate the income from the other crops?

35. What do you think about the future?

8.2 Questions uncertified farmers

General questions:

Name:

Age:

Family members:

Children/age:

Name of village:

Sub district:

Size of farm (hectares):

How many trees/hectare?

Average age of trees?

1. Are you a member of the Baburayyan cooperative?
 - a. Yes
 - b. No
2. Are you a member of another coffee cooperative?
 - a. Yes
 - b. No
 - 2.1 If yes, what cooperative?
 - 2.2 What certification do the cooperative have?
3. How many works at the farm, including family?
 - a. 1-2
 - b. 2-3
 - c. 3-4
 - d. 4-5
 - e. 5-6
 - f. >6
4. What are the production costs for the coffee? (If you don't know, please continue to question
5. Do you employ people during weed control?
 - a. Yes
 - b. No
 - 5.1 If yes, how many employees?
 - 5.1.1 How much are the employees paid on daily basis?
 - 5.1.2 For how many days do they work?
6. Do you employ people during harvest?
 - a. Yes
 - b. No
 - 6.1 If yes, how many employees?
 - 6.1.1 How much are the employees paid on daily basis?

6.1.2 For how many days do they work?

7. Do you prune your coffee plants by yourself?

- a. Yes
- b. No

7.1. If no, do you employ people during pruning?

- a. Yes
- b. No

7.2 If yes, how many employees?

- a. How much are the employees paid on daily basis?
- b. For how many days do they work?

8. How many kilos/bamboo cherry do you produce in one year? (If you don't know, continue to question # 12) (If you can answer, continue to question # 14)

9. How many kilos/bamboo wet beans do you produce in one year?

10. How many kilos/bamboo dry beans do you produce in one year?

11. How many times to you harvest in one year?

12. What's the price for your coffee bean (wet bean)

- Rp/1 kg
- RRp/1 bamboo

13. What's the price for your coffee bean (green bean)

- Rp/1 kg
- Rp/1 bamboo

14. How many times to you harvest in one season?

15. How much do you harvest each time? (Kg/bamboo)

16. What do you do with the beans?

17. When do you harvest the cherry?

- c. Morning
- d. Afternoon

18. Do you pulp the cherry?

- a. Yes
- b. No

18.1 If yes, when do you pulp the cherry?

- e. Morning
- f. Lunch
- g. Afternoon
- h. Evening

19. Do you ferment the beans?

- a. Yes
- b. No
 - 19.1 If yes, how long is the fermentation?
 - f. <3h
 - g. 3-6h
 - h. 7-9h
 - i. 10-12h
 - j. 13-15h

20. Do you dry the bean?

- a. Yes
- b. No
 - 20.1 If yes, how long do you dry them?
 - a. In sun
 - b. Cloud
 - c. Rain?

20.2 When do you know when the bean is ready?

20.3 What do you do after drying the bean?

- a. Sell it
- b. Keep it
 - a. Bring to factory to get green bean

20.3.1 If A, To whom?

20.3.2 If B, For how long do storage them?

20.3.3 If C, What is the cost (Rp/bamboo,Rp/Kg) to get green beans?

21. After getting the green beans, what do you do with them?

- a. Sell it
- b. Keep it
 - 23.1 If A, sell to whom?
 - 23.2 If B, for how long do storage them?

22. Do you sell the beans as half dried beans?

- e. Yes
- f. No
 - 22.1 If yes, what price do you get for your bean? (Rp/bamboo, Rp/Kg)

23. Do you sell the beans as wet beans?

- g. Yes
- h. No

23.1 If yes, what price do you get for your bean? (Rp/bamboo, Rp/Kg)

24. Where do you sell your half dried/wet beans?

25. What's the total income from the coffee in one season?

26. Do you produce more crops than coffee?

- c. Yes
- d. No

26.1 If yes, what crops?

27. Can you estimate the income from the other crops?

28. What do you think about the coffee cooperatives?

- a. Good
- b. Bad
- c. No opinion

28.1 If B, why?

29. Have you thought of joining a cooperative?

- a. Yes
- b. No

30. What do you think about the Baburrayan cooperative?

31. What do you think about the future?