



## Strengthening

Agribusiness Ethics,

Quality Standards,

& ICT Usage in

Uganda's Value Chains

# AGRI-QUEST

POLICY BRIEF SERIES

Policy Brief No. 1:

## Quality Standards and its Influence on the Food Security Level in the Ugandan Coffee Industry

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**AGRI-QUEST Policy Brief Series** provide state-of-the-art analyses and policy recommendations on topics related to ethics, quality standards; sustainability, and Corporate Social Responsibility (CSR) in agriculture in the context of Uganda. They are part of the broader AGRI-QUEST research project funded by The Netherlands Organisation for Scientific Research (NWO-WOTRO).

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## Introduction

One in nine people in the world today is undernourished. This means that 795 million people have insufficient food or other elements for good health and condition. The majority of the people in the world with hunger live in developing countries, where 12,9% of the people is undernourished. The United Nations even expects that in 2050 2 billion people will be undernourished. Extreme hunger and malnutrition remains a barrier to sustainable development and creates a trap from which people cannot easily escape. Hunger and malnutrition cause less-productive individuals, who are more disposed to disease and thus often unable to earn more and improve their livelihoods. For that reason is the second goal of the Sustainable Development Goals to end hunger, achieve food security and improved nutrition and to promote sustainable agriculture.

Agriculture is the largest employer in the world by providing livings for 40% of the global population. It is the main source of income for poor rural households. In the developing countries smallholder farmers provide even 80% of the food consumed. Investing in these smallholder farmers is an important way to increase the food security and nutrition. The food and agriculture sector offers key solutions for development, and is central for hunger and poverty eradication. Uganda is a good example of a developing country where the importance of agriculture outweighs all the other sectors. More than 70% of the Ugandan labor force is locked up in this sector. In particular coffee is an important source of income for many Ugandan. Coffee is one of the major cash crops of Ugandan farmers and with 20% it represents the major export product of Uganda.

Although most of the consumers in Europe still buy inexpensive bulk coffee, the number of consumers that is willing to pay premium

prices for high quality coffee is increasing. The increased concern for sustainable sourcing has stimulated the demand for certified coffee, which has a strong influence on the coffee market. Sustainability standards are slowly becoming an entry requirement for some coffee markets in Europe. Coffee producers have to conform to these standards to keep participating in these markets.

Certified farmers and exporters are in a better position to negotiate, which should lead to better incomes. This is caused by increased efficiency and insights that the certification program has provided them with regard to their position within the supply chain. On the other hand, a surplus of certified coffee can lead to saturation in the market and importers are not willing to pay premium prices anymore for the certified coffee.

The certifications or quality standards that are set are not completely abstained from bad influences. It can also be used for manipulation, power struggles and opportunistic behavior. The person who is in control over the quality standards has power over the users. This could generate situations of asymmetrical access, which means that smallholder farmers are not able to meet the standards and therefore get excluded from the market. This reduces their income that directly leads to a lower level of food security.

To enable the smallholder farmers as well to participate in the more rewarding, European, markets it is important that the coffee farmers are coached and trained in producing coffee according to the quality standards so they can meet the requirements of the European markets. An important role in the communication and training of these standards can be played by coffee cooperatives and NGO's. They can develop training programs to improve the understanding of the quality standards among the coffee farmers. This is important because at the moment many smallholder farmers still refer to the traditional standards, like quality of the product, instead of social standards as well when you ask them

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about quality standards in the coffee value chain. Another important aspect that has to be taken into account is that independent authorities should set the standards to avoid misuse of the standards, which should lead to lower entry barriers on the market and a higher credibility of the standards.

This report will give a brief introduction to the coffee production context, the food security and quality standards in Uganda. Subsequently an example is given how a NGO could support the coffee business in developing country by developing training programs. We then elaborate on the way training programs influences the ability of coffee farmers to implement the new standards. Coaching, capacity building, knowledge sharing and education could do this. Then we further explain the role of third-party certifications and how the quality standards are met at the moment in the Bugisu region in Uganda. After the Bugisu mini-case we will discuss the most important findings of the interviews that we conducted in Uganda with different stakeholders along the value chain and at the end of this report we will give some recommendations and a conclusion.

## Coffee Production in Uganda

In the Ugandan coffee sector there are more than 3.5 million people employed, directly and indirectly. This group is dominated, estimated 90 percent, by smallholder farmers that produce the coffee crop with less than seven acres of land. Smallholder farmers often make use of intercropping with staples like maize, cassava and banana. Coffee is the cash crop, the main source of income, while the other crops used for intercropping are mostly grown for subsistence consumption. The average income of a smallholder coffee farmer is relatively low and 25 percent of the Ugandan coffee producers live below the international poverty line (Chiputwa et al., 2015).

In the past, before 1991, a marketing board controlled the Ugandan coffee sector centrally.

The coffee farmers were organized in cooperatives and the marketing board paid the farmers a fixed price upon delivery through the cooperatives. Often, the fixed prices were below market level and the quality premium was paid in delay. However, this system was liberalized in 1991. Then the Uganda Coffee Development Authority (UCDA) was founded to regulate and monitor the market and to promote competitiveness and value adding processes. Independent traders and companies are responsible for purchasing and/or marketing of the coffee (Chiputwa & Qaim, 2016)

Although liberalization was important for the Ugandan coffee sector to improve its efficiency, the production and export declined after the liberalization. This was caused by several reasons, including low productivity, increasing international competition, and declining world-market prices. Several public and private sector initiatives were established, trying to improve coffee productivity and quality (Baffes, 2006). One of the strategies they tried is to expand the production of coffee specialties. To expand the coffee specialties they introduced certification schemes, including sustainability standards. The share of certified coffee, coffee that matches the quality standards, is still a small part of Uganda's total coffee production but it is increasing the last decade (Chiputwa et al., 2015). Around 10% of the small-scale coffee farmers in Uganda are already certified under different sustainability standards.

The coffee linked to environmental and social issues, called sustainable coffee, represents a critical part of the differentiated market. It addresses the increasing concern of consumers over issues such as environmental degradation caused by monocropping, the social inequalities embodied in the international coffee trade, and the volatile coffee prices that lead to economic uncertainties of coffee production (Griswold, 2000). The new market holds at the moment a minor market share, but it is one of the fastest

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growing segments of the coffee market (Raynolds et al., 2007).

Traditionally, coffee is distinguished by quality standards that relate to the cleanliness of the beans and the taste of the brewed coffee. The voluntary certification systems are gaining quickly market acceptance. Each of the standards has its own principles but they all have in common that it involves certain environmental and social objectives. For example, to improve the livelihoods of smallholder producers through fair participation in international value chains (Chiputwa & Qaim, 2016). The standards do not explicitly mention the nutritional targets, but it is known that increased smallholder incomes and market access will influence the dietary quality. (Sibhatu, Krishna, & Qaim, 2015).

Many coffee producers and processors have initiated several first and second-party certifications to address the upcoming concerns of consumers, to avoid possible negative publicity and to capture a market share of the sustainable coffee market. Many corporations have founded internal codes of conduct related to the quality standards (Slob and Oldenzel, 2003). Starbucks, for example, has a Coffee and Farmer Equity Practices Program (C.A.F.E.).

Third-party certification systems are growing the fastest due to their greater legitimacy and associated consumer and market appeal. There are five major relatively well-established NGO-based coffee certifications, the Fair Trade, Organic, Utz Kapeh, Shade/Bird Friendly, and Rainforest Alliance initiatives (Raynolds et al., 2007). Fair Trade has a clear social development mission that is practiced by working specifically with poor producers and challenging inequalities in international trade to empower these producers. In contrast, Organic certification has a focus on the environmental issues and they do this by promoting less chemical-intensive farming practices. Their goal is the worldwide adoption of ecologically, socially and economically sound systems that are based on the principles of Organic

Agriculture. The Rainforest Alliance initiatives involve the protection of people and the environment. Their mission is to protect ecosystems and the people and wildlife that depend on them by transforming land-use practices, business practices and consumer behavior. Utz Kapeh has a social and environmental mission as well. They focus on a corporate responsibility approach and they pursue to ensure that coffee is grown decently with respect for producers and the environment.

## Food Security

As mentioned earlier, consumers have increasing concerns over social and environmental issues. One of these issues, and also one of the Sustainable Development Goals set by the United Nations, is to end hunger, achieve food security and to improve nutrition and promote sustainable agriculture. This report will focus on the way to achieve food security.

Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life. Household food security is the application of this concept to the family level, with individuals within households as the focus of concern. Food insecurity exists when people do not have adequate physical, social or economic access to food as defined above for food security.

Food security is based on three pillars. First, there must be sufficient food available on a consistent basis. Second, there must be sufficient resources to obtain appropriate food to follow a nutritious diet and third, appropriate use of food is necessary. The appropriate usage of food is based on the knowledge of basic nutrition and care, adequate water and sanitation usage. Food security is a complex issue that has led to a great debate. For example: How is it possible that there is

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enough food in the world to feed everyone adequately but there is still food insecurity? Or can the current level of production meet the future food needs? Or does globalization lead to the persistence of food insecurity and poverty in rural communities? (Pretty & Hine, 2001).

Agriculture is the primary employer for the largest proportion of the Ugandan workforce, with over 70 percent of the Ugandan labor force locked up in this sector. This makes agriculture important for food security in two ways. First, because it produces the food people eat. Second, it provides the primary source of livelihood. This research will focus on the primary source of livelihood, namely income. Coffee remains the major cash crop exported in Uganda. An unsuitable situation for coffee growers can have great influence on the economic growth and employment of Uganda due to the fact that coffee is the biggest export product of Uganda, representing 20% of the total exports.

International agriculture agreements are crucial to a country's food security due to the fact that most of the coffee production is exported. But some critics argue that trade liberalization may reduce a country's food security by reducing agricultural employment levels. They argue that World Trade Organization (WTO) agreements, by pushing for the liberalization of crucial markets, are threatening for the food security of whole communities. Because they impugn that the overall economic gains from international trade benefit those who are suffering from insecurity. For example, what is the net impact of the further liberalization of food and agricultural trade, considering the widely differing situations in developing countries? And how to ensure that imported food products are of acceptable quality and safe to eat? These are all issues that discuss the intentions and consequences of international agreements.

The discussion around food security will increase the coming years because over the coming decades, a changing climate, a

growing global population, rising food prices, and environmental tensions will have significant impacts on the food security level. Economic growth is only sustainable when all the countries have food security. Without food security strategies, that has to be country-owned and country-driven, there will arise obstacles and additional costs to economic growth on global, regional and country level.

## Quality Standards

To anticipate on the social and environmental issues, a new differentiated market of sustainable coffee has arisen to address the issues of consumers. As mentioned earlier, many producers make use of certification schemes that are related to certain quality standards. Quality standards are used to communicate information about the attributes of a product. A distinction can be made between Search, Experience and Credence attributes.

Search attributes can be verified at the time of the transaction, for example the color of the coffee bean. Experience attributes can only be assessed after the transaction, like the taste of a coffee cup, and credence attributes are based on trust because they cannot be objectively verified through analysis of the physical characteristics, for example if the coffee was grown organically or not (Ponte, 2004). The quality standards can refer to the product itself or to the production and process methods. The aim of quality standards is to improve the socio-economic and environmental conditions in coffee production and trade.

Not all the standards are mandatory, they can also be voluntary and/or private. The government sets mandatory standards in the form of regulations. This can be done in several ways, for example by using technical requirements, testing, certification and labeling procedures that could influence trade flows. Voluntarily standards result from a formal coordinated process in which participants in a

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market seek consensus. This can be as a response to consumers request or as a response to NGO-initiatives. External parties have to make sure that the standards are verified and complied. Private standards are developed for internal use of organizations and firms (Ponte, 2004).

The last years the dividing lines between the mandatory, voluntary and private standards are getting blurred. Some voluntary standards have become mandatory in practice. This means that they are not obligatory but they are required if economic agents wants to trade them globally. The dividing line between voluntary and private standards is also less clear than a couple of years ago, because many private organizations borrow parts of voluntary standards. Obedience to the voluntary standards is becoming more frequently a condition for the use of the products (Ponte, 2004).

Quality standards are not completely abstained from bad influences. It can also be used for manipulation, power struggles and opportunistic behavior. They empower the institutions or actors that decide their criteria and control their administration. They hand over power because they can generate situations of asymmetrical access. The person who is in control over the quality standards has power over the users. Some of the users could have been part in the setting of the standards. However, not all users have the same influence in the process. The control of coffee roasters and distributors over the commodity chain continues to rise due to corporate concentration and the differentiation of coffee products, which further focuses profits at the point of sale. Standards have become a political domain because they shut out some interests while serving others, instead of being a simple technical instrument to decrease transaction costs associated with asymmetry of information.

So one of the problems of the quality standards is its credibility. The credibility of the claims, made in quality standard certifications,

is becoming increasingly important because of the increasing demand for products meeting new standards and the broad expansion of markets and competition. To improve its credibility, the major initiatives have developed verification systems. Verification can be done by international accreditation of the certification guidelines and even the certifiers themselves. However, the current systems are far from ideal.

As mentioned before, the goal of quality standards is to improve the socio-economic and environmental conditions in coffee production and trade. Farmers can benefit directly and indirectly from the standards. Most of the benefits are indirect or intangible, for example strengthened social capital (Robbins et al., 2000) or improved governance structures in the community (Giovannucci & Reardon, 2000). On the other hand, many of the standards do not guarantee that direct benefits will reach the farmers or the local communities.

For many farmers, the economic incentive is the most important. They want that the extra investment and effort needed to match the standards, for example labor costs and the cost of a certification, pays off in a higher price of their coffee beans. In other words, the second problem is that the farmers mainly benefit indirectly, while they are mostly focused on direct economic benefits. Additionally, meeting quality standards can even lead to spill over effects. These spill over effects are related to the non-participants in the community, whose yield increases just because they live in areas close to the farmers that do meet the standards.

Another problem that is caused by the quality standards is that it creates new barriers to entry the market. It can deter producers, especially poorer farmers, to enter the market. This is caused by additional costs, a steep learning curve of adaptation, and inadequate extension services. There are more barriers for the farmers to adopt the quality standards. They find it difficult to maintain the new

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structure when the benefits do not appear in the short-term. The hidden costs, like marketing, and the limitations of collective action could significantly decrease the overall benefits of meeting the standards. Furthermore, when a standard becomes widely accepted, the buyers won't see the necessity of paying a premium for the additional realizations because all of his competitors did the same. These are all factors that lead to a lower return on investment of the coffee farmer, which hampers the willingness of farmers to start working according to the quality standards.

To make sure that quality standards will have a positive influence for farmers in developing countries, the following factors must be secured. First, there must be transparency and clarity of the standards and their requirements. Second, producers from developing countries must participate during key decision-making. Third, realistic access for the smallholder farmers and the last factor is that a compensation for the efforts of farmers to meet and monitor the standards is needed to have a sustainable standard (Giovannucci & Ponte, 2005). This report will especially focus on the transparency and clarity of the standards and their requirements and how this could be improved to assure that the standards will have a positive influence on the food security level in Uganda.

## CASE STUDY: CBI initiative

There are several initiatives that try to support businesses from developing countries. One of these initiatives is the CBI, Centre for the Promotion of Imports from developing countries. CBI is part of the Netherlands Enterprise Agency and commissioned by the Ministry of Foreign Affairs of the Netherlands. It is established in 1971 in order to support producers and exporters to get a foothold on the market in the Netherlands, in 1991 the activities were expanded to the European Union.

The mission of CBI is: sustainable strengthening of the competitive capacity of SME exporters and producers in developing countries, focusing primarily on European markets. They attempt to achieve this by offering integrated programs that are applicable to companies, support organizations, and governmental authorities. The core competence is threefold: advice, counseling and knowledge management.

The African Fine Coffees Association (AFCA) has requested CBI to support them in the facilitation of workshops to validate and gather input for the new strategy. CBI visited Uganda to sit down in workshops with members in order to hear their opinions and find out what Ugandans consider as most relevant. Based on this visit, the CBI developed an Export Coaching Program (ECP), which is developed to coach small and medium sized enterprises in different phases towards exporting to the European market. In the Export Coaching Program and BSO (Business Support Organization) Development project for specialty coffee Uganda, the CBI is working through coaching and collective sessions with the exporters and BSO's. In the Export Coaching Program they answer questions from businesses like: Through what channels can I get specialty coffee from Uganda on the European market? What prices are paid for specialty coffee in Europe? What are the most promising Europeans markets for specialty coffee from Uganda? What requirements should specialty coffee from Uganda comply with to be allowed on the European market? What trends offer opportunities for exporters of specialty coffee from Uganda? In the end, each participating exporter should have an Export Marketing Plan, a product ready for the end market, and should be able to deliver that product.

## Coaching and Capacity building

The CBI initiative is just one example that tries to improve the transparency and clarity of the

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standards and their requirements. But what can be noticed is that they try to develop the businesses by coaching and capacity building through knowledge sharing and education. This could lead to higher credibility level, better understanding and better access to the market for the smallholder farmers in the developing countries.

## Knowledge sharing

In an organization or value chain where knowledge sharing takes place, human capital will develop, for example by the competencies of human resources. As organizational human capital is developed, human resources can improve their job performance and ultimately, organizational performance with new and relevant knowledge. Knowledge exchange and learning will lead to organizational innovation (Nooteboom, 2000). Further, organizational knowledge sharing helps pass down competency enhancing knowledge from the organization to individuals or from one individual to another. The immediate benefit is the enhancement of the task effectiveness and innovativeness of individuals (Calantone, Cavusgil, & Zhao, 2002). Furthermore, as one shares knowledge with others, not only do these others gain information, they share it with others and the provide feedback questions that add further value, also for the original sender of the knowledge. The process of knowledge sharing and providing feedback is an important factor of the development of organizational human capital.

To achieve best possible gains in knowledge sharing, social environments can be created within an organization or value chain so that individuals can interact with one another for the sake of knowledge sharing and learning. Furthermore, an organization can provide incentives to encourage employee knowledge sharing. Organizational or value chain knowledge sharing practices could include training- and development programs and mentoring programs.

## Education

Education plays an important role to communicate knowledge and practices and it is an investment in human capital. Education refers to the process of acquiring knowledge and understanding, in this case regarding coffee production. Improvements in human capital affect acquisition, assimilation and implementation of information and technology. Human capital also affects one's ability to adapt technology to a particular situation or to changing needs (Zepeda, 2001). This means that education, which increases the human capital level of farmers, should lead to a better ability to implement the required quality standards that are needed to export the coffee beans.

Critical elements in achieving increases in labor productivity, which positively influences the food security level, are the supply of modern industrial inputs in which the new technology is embodied and the investment in general education and in research and extension which raises the capacity to develop and adopt a more productivity technology (Hayami & Ruttan, 1970). While the land area per worker remains constant or even declines slightly, the productivity level can still increase when there will be a substantial investment in rural education and in the physical, biological, and social sciences (Hayami & Ruttan, 1970). This is similar to what Zepeda (2001) stated about how human capital also affects the ability of farmers to adapt to new technologies or quality standard requirements. In other words, an investment in general education will raise the capacity to develop and adopt new technologies that will improve the quality standards, which will improve the effective use of land and the return on investment as well. This is an important aspect for the coffee farmer, due to the fact that the economic aspect is the main incentive of adapting the quality standards.

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## Control mechanisms

Control mechanisms are instruments that have to make sure that all the standards are actually complied. Additionally, it could reduce the occurrence of spill over effects as well and it increases the credibility of the standards. This applies only when the control mechanisms are conducted in the right way. When the credibility of standards increases, a buyer will also be more inclined to pay a premium price for the product of good quality. Third-party certification systems have the greatest legitimacy due to its objectivity. A third-party certification system has reviewed the manufacturing process of a product and has independently determined if the final product complies with specific standards for safety, quality or performance. For that reason they will be a good mechanism to control the quality of the standards and to set standards with the right incentives and corresponding consequences.

## Third-party certification (TPC)

For suppliers in the global coffee value chain has the adoption of third-party certifications important implications. Producers that are third party certified, produce according to the right quality standards, may gain economic opportunities in the market over those producers who are not certified. For example, a certification allows suppliers to show to other stakeholders, within the value chain, their commitment to more demanding standards for their products. This may facilitate access to new, and potentially, more profitable markets. This is especially the case for suppliers from developing countries. In the most developing countries, insufficiently strict or unenforced public standards for health and safety have meant that products often do not meet the required quality standards for participating in the better rewarding markets of developed economies (Barrett et al., 2002).

Since major retailers increasingly request certifications, the certifications become less about gaining a competitive advantage and

more about just staying in the current market. The opportunities open to producers vary differently caused by their size. For the larger producers there will remain opportunities, because they can afford to invest in the necessary organizational changes and technological upgrades. These suppliers may be more willing to adapt to the required standards as a marketing tool and as a way to gain access to new markets.

The challenges of implementing the standards, set by third party certifications, may be especially difficult to overcome for small- and medium-sized suppliers in developing countries. Since the standards are developed in industrialized countries, growers in developing countries are likely to have limited access to information relating to the standards required by retailers in industrialized countries (Barrett et al., 2002). For example, in Ghana there is a general lack of public and private institutions and resources for agricultural standards.

Therefore, growers who want to export depend almost completely on the information and education, regarding the quality standards and requirements, that NGO's provide. Coffee farmers are now receiving training from NGO's, for example the CBI initiative. Training in farming practices and techniques has facilitated their ability to improve both the quality and safety of their coffee beans in a cost-effective manner. For example, training in how to select higher quality and disease resistant strains of plant breeding material has assisted farmers in growing robust plants that require fewer applications of expensive chemical sprays, which helps minimize chemical residues on the produce.

## Case Study: Quality Standards in the Value Chain

### Bugisu Co-operative Union Limited – Processors and Exporters of Arabica Coffee

The Bugisu Cooperative Union (BCU) is a Ugandan agricultural cooperative federation. It was started in 1954 because four local unions felt the need to form one big central union. BCU is owned by coffee farmers who are organized in primary societies. Two delegates represent each primary society during the annual general meeting. The vision of BCU is to produce high quality coffee for socio-economic development of the Bugisu region and Uganda. Their related mission is to grow, buy, process and market high quality standard Arabica coffee for mutual benefits to both farmers and consumers.

After an interview with Nathan Mabonga, board member of the BCU, we visited the BCU warehouse where the processing of the coffee beans takes place as well. This visit was on the second of April in 2016. During the visit I got a tour through the warehouse where all the stages of the coffee processing were explained. We will elaborate on the two main stages of the process: Quality Control, and the processing of the beans.

#### Quality Control

Before a farmer can sell his beans to the BCU, it first has to be controlled. Because they can't control all the beans, due to the big amount, they control a random sample. First they control if more than 95% is actually coffee bean (and not damaged beans, stones or other dirt) and then they check the level of moisture in the beans. They do this by making use of the moisture analyzer machine. A small sample of the beans is tested in the machine to determine its moisture level. The moisture has to be higher than 10 and lower than 13. When the coffee is too dry they still process it but they use it for local demand instead of export. The Ugandan Coffee Development

Authority sets the quality standards that the BCU tries to comply with.

To make sure that the farmers are able to comply with these standards, the BCU educates farmers, mostly done by training. They train a leader in the community and he has to teach the others. He is acting as a kind of champion, because he supports and passes on the cause of the BCU. When a farmer does not comply the standards, the coffee beans are not bought and when a farmer behaves unethically he gets a penalty and even can be disbarred.

#### Processing of the Coffee Beans

After the control, the good beans are weighted, cleaned and put in storages. The cleaning process is done by machinery and is quite straightforward. The storage process, in contrary, is more detailed. This is also done by machinery but it filters the coffee beans in eight categories and removes the beans that cannot meet any of the standards of the eight categories. The eight categories are labeled by: AA, A, B, C, PB1, PB2, UG1 and E.

#### Side notes:

Although the tour guide was wearing safety shoes, an indication that the union tries to practice safety measures, there were several holes in the floor and in the windows. Broken brooms were lying on the ground and the place was surrounded by coffee bean remnants. On the other side, the machinery that was processing the beans was of high quality and in a good state.

The most remarkable was the fact that women sitting on the ground for 13 hours a day, filtered all the coffee beans. They were doing this by hand next to the machinery. Additionally, there were men carrying bags of 60kg for 13 hours a day as well. In all their effort to meet the standards of the product, the coffee bean, they forget to think about the social standards and environmental conditions, like the labor rights of their employees. Besides the control of where the beans are coming from and if they meet the quality

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standards, there is no standard or there is no adequate control mechanism that controls the social standards and environmental conditions.



## Interviews

We conducted interviews with several stakeholders along the coffee value chain. The most important findings and insights of the interviews will be discussed in this section.

### Food Security

The discussion about the food security level can also be felt along the value chain in the developing countries. For example Apollo Segawa, board member of CURAD (Consortium for Enhancing University Responsiveness to Agribusiness Development) mentioned: *'Well, I think that is not because of the lack of food, that we don't have enough food. It is more towards the capacity of the resources for the people to buy food. Because there is plenty of food I am telling you, but due to a whole lot of reasons, people don't have the resources to buy it. So it's not that the food is not there. It's like the people don't have the money to buy the food.'* So Apollo Segawa recognizes the problem of a lack of access to sufficient, safe and nutritious food. He thinks that there is a lack of access to food due to the fact that people can't afford the food, because they don't earn enough money.

Sarah Mubiru from SNV, a Dutch development organization, also links the income level to the food security level: *'However, for those who depend on the products for livelihood, for instance income, yes it does affect their food security. Because when I can't deliver my product to a market for a good price I will start to suffer, my employees will not get a good paycheck. So yes, it trickles down'*.

The influence that the quality standards have on the food security level is mentioned as well by Sarah Mubiru. James Ssemwanga also explains the importance of a good working quality standard mechanism that rewards the farmers that are able to meet the requirements for a certain standard. On the question how he thinks that the quality standards influence the food security he answered as follows: *'Well, in a number of ways. Because when you get rewarded for meeting standards (when there is a proper mechanism to reward farmers that meet the standards) you get better returns of investments. When you get better returns of investments you will keep investing in productivity enhancing technologies. Ideally this should make you more competitive. Which has to lead to better food security. But the system that rewards meeting standards is crucial. But now it is still about quantity and quality. Not only quality.'*

The incentives of farmers to start adopting the quality standards are clear. But when a farmer is willing to start producing in a sustainable way he still has to be trained to make sure he understands the requirements and to make sure that his investments will return in better prices and an actual increase in their income. Professor Zake, who is a subsistence farmer himself and a board member of the UCDA, is mentioning this in the following way: *'You see there is a lot still to teach our farmers, at production level, maintenance level, at the harvesting level, the cup taste. There is a lot to do with the coffee, how people can get out of the poverty by doing the right thing at the right time.'*

### Quality Standards

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Different stakeholders have different perspectives and opinions about the quality standards of a product. High educated people, like researchers and NGO representatives approach the standards and requirements differently than farmers. This difference in understanding is also one of the problems according to James Ssemwanga. He even thinks that it leads to disaffection regarding the quality standards and the way the standards are being made.

For example Nathan Mabonga, farmer and board member of the BCU, thinks about standards and regulations in the following manner: *'The coffee regulations in producing the beans is that you only pick out the ripe one. Then there's also a policy on, like I said, you pick only the ripe one and pulp it on the same day, and then you follow with the drying process. That's the process'*. The standards where Nathan Mabonga is referring to are the traditional standards, like quality and cleanness of the bean. This is also the most remarkable of the BCU mini case, that they do know how to select the coffee bean but that they do not spend any time on the environmental conditions and the credence attributes of the product. This can be caused because they do not know the existence of these standards or because there is a lack of control on these standards because it doesn't affect the consumers.

On the other side there are stakeholders that talk about standards in a more ethical behavioral way. So besides the traditional quality standards they also talk about the social standards. For example *'farmers that tend to bring in coffee from uncertified fields, and this is mixed up with certified field. This is intentional cheating. 1kg of seed should give you 2200 seeds, but when you go to register and you can say that you supply coffee seed you may claim that you can supply 8000. And you get the additional seed from uncertified farmers'* (Arthur Wasukira). According to Sarah Mubiru this behavior is caused by a lack of control: *'There is an idea by the actors, that there is quality and that they are enforcing*

*quality. They know what to do to increase the quality. But because there is nobody to track at some places it is hard to say if this is actually done. And people don't know the specifics'*.

So it is important to explain to the farmers the reasons for farming in a sustainable way and to give them another incentive, beside the economic incentive. This is especially important because a certification is big investment for the farmers so they really need to be convinced about the benefits. *'The problem we are facing, some of those official trademarks are quite expensive for us. I would not like spending a thousand plus dollars just for a trademark or certification'* (Michael Kijjambu). A way to communicate these standards to the farmers is when you make use of associations. *'When you make use of associations. It is very easy to communicate, because they assemble all the farmers for export. So within themselves, mutually you can say: 'use this and this technique.'* (Prof. Zake)

The associations or cooperatives have a bigger reach and therefore they are a good mechanism to communicate the quality standards. Training for example can enable this: *'We have also trained the farmers, which we then call business managers, at each of the associations or cooperatives. They take care of all the other farmers we cannot reach. Because these cooperatives and associations belong to them as farmers. So we do empower them to train each other, and to ensure that they are able to themselves as leaders of these cooperatives and associations to move down and train their own, as master trainers. They implement what we call an internal control system and then within an internal control system, there is a total quality management system. So we have what we call a TQM system.'* (Deus Nuwagaba).

During these trainings it is important to teach them coffee production skills but also to tell them what long-term economical benefits there are. At the end it has to increase the income level of the farmers. *'Exactly, so the farmer can get much more than before by paying them a*

*premium and teach them coffee production skills as well. We have to be open, we can tell them look at the end of the value chain this is the price. If you do A, B and C you can get 60-70% of that end price.'* (Michael Kijjambu).

## Recommendations

To make sure that quality standards will have a positive influence for farmers in developing countries, they have to improve the transparency and clarity of the standards and their requirements, producers from developing countries must participate during key decision-making, there must be realistic access to the market for smallholder farmers, and there must be a compensation for the efforts of farmers to meet and monitor the standards.

Transparency of the standards is needed to improve the credibility of the intentions of the standards. At the moment there are several standards that are all slightly different, which causes a lot of distrust. Powerful organizations have too much influence on the setting of the quality standards. To improve the transparency and to reduce the distrust of farmers against the standards there must be an independent authority that sets global standards. Third-Party Certifications are already objective but when there will be a collaboration with a well known, and trusted, international organization like the United Nations there will be more trust in the standards, which also will lead to higher willingness to adapt to the standards. United Nations is just an example, but important to take into account is that the developing countries are part of setting of the standards, that they participate during decision-making.

The requirements become clearer when the authorities put more focus on the communication of the requirements, by sharing knowledge, and on the development of the human capital of the farmers. A good way to improve this is by making use of cooperatives. An agricultural cooperative is an association of farmers and other rural households who have voluntarily joined together to fulfill a common

socio economic objective, mainly increasing income, by undertaking suitable business activities, making contribution to the capital required and accepting fair share of the risks and benefits of the business. It is the mission of cooperatives to facilitate an increase in quality coffee production, productivity, and consumption. Cooperatives could play a key role in the communication and education of quality standards. A cooperative could bring farmers together where they can share their ideas and solutions to problems and their collaboration can lead to bargaining power, for example in negotiations on prices with buyers.

On the other side, the Bugisu Co-operative Union (BCU) case is a good example that even cooperatives can have a lack of knowledge and understanding of the quality standards. For that reason it is important that NGO's keep developing training programs and other methods of support to help the cooperatives to get a foothold on the market. The CBI initiative is a good example of non-profit organization that develops training programs for businesses in developing countries. The non-profit organizations, like CBI, that have the knowledge and skills will form a good combination with the cooperatives. They will be good combination because the best possible gains in knowledge sharing are achieved in a social environment, which is the network of the cooperation in this case. And the knowledge is shared through practices that include training- and development programs and mentoring programs, which is developed by the non-profit organizations like CBI.

Improved knowledge sharing and education should lead to improved human capital among the farmers. Improved human capital level of farmers, should lead to a better ability to implement the required quality standards that are needed to export the coffee beans. So when the coffee farmers are better able to implement the quality standards they are also able to participate in the better rewarding, differentiated, markets of developed economies. In other words, when the human capital of coffee farmers can be increased,

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they will be better able to implement the required quality standards that are needed to export the coffee beans. Because they can meet the quality standards they will participate in the markets where better prices are paid for the products. Due to the fact that there are better prices paid for the coffee beans will the coffee farmer also be compensated for the efforts to meet and monitor the standards, which is their main incentive of adapting to the quality standards.

## Conclusion

Agriculture and in particular the coffee industry is the primary employer for the largest proportion of the Ugandan workforce. This means that the coffee production is extremely important for the level of food security because it provides the primary source of livelihood. An unsuitable situation for coffee growers can have great influence on the economic growth and employment of Uganda due to the fact that coffee is the biggest export product of Uganda, representing 20% of the total exports. Therefore are the international agreements on quality standards crucial for Uganda's food security level. Due to the fact that obedience to the voluntary standards is becoming more frequently a condition for the use of the products, the quality standards could lead to higher entry barriers. This could mean that smallholder coffee farmers can't participate in the market anymore. Furthermore, when a coffee farmers is able to meet the quality standards it doesn't always imply that they will get a better price for their coffee beans and that they will earn back their investment.

To minimize the entry barriers, cooperatives and NGO's started learning- and training programs to coach the farmers in their production and to work on their capacity building. By education and knowledge sharing among the farmers the human capital of these farmers will increase. This will lead to a better ability to implement the quality standards that are required. To make sure that farmers will receive a premium price for the quality

products and to make sure that the standards are set with the right incentives and corresponding consequences it is important that an independent authority, like third-party certifications or the United Nations, is involved in the decision-making and in the control mechanism of the quality standards.

The mini-case study in this report illustrates a cooperative union in the Bugisu region in Uganda. The cooperative is dealing with the quality standards that they have to meet to participate in the more rewarding export markets. The case is a good illustration of the current situation in Uganda because the cooperative still struggles in meeting the traditional standards, like the quality of the bean, while the authorities and their agreements already focus on the social standards and environmental conditions (the credence attributes of a the coffee bean). Their different perspective on quality standards is important to take into account when the standards are set and what consequences these standards could have on the food security level of the smallholder farmers in regions like Bugisu.

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