MASTER’S THESIS

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Supporting farmers in the malt barley value chain in Ethiopia: clients’ satisfaction and value chain approach to assess the adequacy of the microfinance services provided by Buusaa Gonofaa MFI

(Extensive internship report)

By Roxane Lemercier

Supervisor: Professor Johan Bastiaensen
Assessor: Professor Jonathan Morduch
Internship organization: Buusaa Gonofaa MFI (Ethiopia)

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EXECUTIVE SUMMARY

The development of new modern global value chains in the agri-food sector offers opportunities for farmers, as well as other intermediaries, to be linked with international actors, to potentially upgrade and generate more revenues. However, coordination of the chain is not easy, especially in the agricultural sector because of uncertainty of production. Participation can also be difficult for small producers due to specific requirements, as minimum volume, high quality or flexibility. Contract farming and value chain financing are often presented as solutions to facilitate coordination within the chain and improve producers’ inclusion. But these tools face some challenges, especially in a context of high competition and low contract enforcement. Additionally, the positive impact of being integrated in the chain is not straightforward. It strongly depends on the way value is created and distributed. In many developing countries, microfinance institutions (MFIs) have been identified as key actors to support poor farmers’ participation in modern chains. They often provide financial and technical support and facilitate access to inputs and marketing of production. This is the case of Buusaa Gonofaa MFI (BG), which provides input loans and is strongly integrated in the Ethiopian malt barley modern value chain, thanks to its participation to the CREATE project developed by Heineken.

The Ethiopian malt barley sector is characterized by the recent development of highly integrated value chain models, coordinated by powerful buyers and supported by different stakeholders as governmental agents, non-governmental organizations (NGOs) and MFIs. The new value chain arrangements offer opportunities for farmers to improve their livelihoods through higher productivity, prices and margin. It also allows malting companies and breweries to source locally and it slowly decreases the country import balance. Intermediaries, as primary cooperatives, model farmers and MFIs benefit from value chain developments, too. Being integrated allows them to provide broader services to farmers in their network. However, many challenges remain to make the market better work and to ensure modern value chains benefit to poorer producers. Inputs’ provision is still a challenge in the country and competition leads to price instability, which strongly undermines relationships between the actors. Moreover,
it seems that the process favors better-off farmers. Indeed, high quality requirements tend to exclude smaller producers who lack technical and financial support. While they benefit from a general increase of prices in the market, information asymmetry tends to lock them in less value-added chain, dominated by traders. On the other side, participation in modern chain is not always the best option as in some cases, prices are lower, payments late and collection time not adapted to farmers’ constraints.

This research showed that malt barley producers supported by BG have an easier access to inputs, increased their productivity and are able to generate higher margin. However, they still face difficulties to directly sell to malting companies and breweries. It seems that the process offers more opportunities for lead farmers who are able to upgrade by developing new trading activities. In this regard, a deeper analysis of how value is created and distributed among the chain is needed, to identify who is benefiting the most from its development and make sure government, NGOs and donors money goes to the most underprivileged. The chains’ organization is also complex and could be more efficient. Participating in value chain projects is challenging and time consuming for the MFI analyzed. It involves working with different partners and playing the role of inputs distributor, which is risky and outside the core business of the organization. However, inputs financing is also key for the institution as it allows to extend its outreach. It is therefore important for the MFI to consolidate its position in the chain. In this regard, it can capitalize on its experience with Heineken to develop new partnerships with Soufflet and Boortmalt, two new malting factories active in Ethiopia. Additionally, BG could work more closely with intermediaries as primary cooperatives, model farmers and Farmers Services Centers (FSCs) for the provision of inputs and collection of production. There is also an opportunity to support them financially as these organizations often lack working capital. BG could play a stronger role in increasing poorest producers’ inclusion and bargaining power by providing access to market information and reinforcing their capabilities. However, to guarantee the long-term sustainability of the process, the MFI needs to consolidate its internal organization by uniformizing processes and reinforcing its staff.
ACKNOWLEDGEMENTS

I would like to address my deepest thanks to Buusaa Gonofaa MFI staff which warmly welcomed me in their institution. It was a wonderful experience, on the professional as well as the human point of view. I am impressed by their work and efforts to improve the life of thousands small farmers in Ethiopia. I really appreciated working with the marketing section, and I enjoyed the way they included me in their team. My special thanks go to Kassahun Gonfa who supervised my research. I also thank all the actors who accepted to answer my questions, particularly the farmers who gave me a bit of their precious time, in the intensive plowing period. I am grateful that SOS Faim, through Laurent Biot, facilitated the contact with the MFI. I also thank the organization for its financial support.

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Finally, I would like to thank my colleagues and relatives who supported me in this adventure. I was lucky to work in a flexible environment which allowed me to take some days off and to make a four-months break to realize the internship. I would like to address a special thank to my dad who accepted to review all the papers I wrote during the master. I hope he found it interesting and better understands my passion and enthusiasm working in this field.
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<table>
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<th>Description</th>
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<tbody>
<tr>
<td>AMF</td>
<td>Assela malting factory</td>
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<tr>
<td>ATA</td>
<td>Agricultural Transformation Agency</td>
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<tr>
<td>BIF</td>
<td>Business Innovation Facility</td>
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<td>BG</td>
<td>Buusaa Gonofaa MFI</td>
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<td>BGI</td>
<td>Brasseries Glacières Internationales</td>
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<tr>
<td>CB</td>
<td>Conventional Branch</td>
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<tr>
<td>CREATE</td>
<td>Community Revenue Enhancement Through Agricultural Technology Extension</td>
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<td>ETB</td>
<td>Ethiopian Birr</td>
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<td>FRI</td>
<td>Farm Radio International</td>
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<tr>
<td>FSC</td>
<td>Farmers Services Center</td>
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<td>GMF</td>
<td>Gondar Malt Factory</td>
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<td>IFC</td>
<td>International Finance Cooperation (World Bank Group)</td>
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<td>MFI</td>
<td>Microfinance institution</td>
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<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
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<td>OSE</td>
<td>Oromia Seeds Enterprise</td>
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<td>RSF</td>
<td>Rural Services Facilities</td>
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<td>SACCO</td>
<td>Savings and Credits Cooperative Organization</td>
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INTRODUCTION

Buusaa Gonofaa (BG) is a microfinance institution (MFI) targeting women, rural smallholders and landless youth in the Oromia region, in Ethiopia. The production of malt barley is important in this area, especially in Aris and Bole zone. The market strongly changed these last five years with the development of new breweries. Many value chain projects started, with the support of private and public organizations. While it creates opportunities for small farmers to be better linked to the market and to get price premium, the new arrangements also present some challenges. BG supports these farmers through inputs financing and facilitates the interactions within the chain. The MFI plays a key role in providing financial support, improved seeds and other inputs, as well as to link farmers with processors. As the market is evolving rapidly and new actors emerged, BG would like to identify the new opportunities and risks in the sector. The MFI also want to understand the value added of its services, for its clients, its partners as well as for the organization itself. The aim of this research is to give recommendations to help the institution defining its future strategy regarding malt barley inputs financing.

This research focuses on malt barley market and financing value chain in Ethiopia. It is based on the review of literature and case studies published on the subject. Information from the literature is completed with interviews made with BG clients, staff and stakeholders. This paper is an Extensive Internship Report. Methodology used is therefore lighter than for a Standard Master Thesis. The emphasis is mainly on providing useful information for the MFI. The first chapter presents main concepts linked to value chains. It especially focuses on agricultural value chains and financial support that can be provided along these ones. The theoretical framework serves as a guide to analyze the malt barley value chain in Ethiopia, the role played by BG and the way farmers benefit from value chain financing and participation. The specific objective of this research and the methodology used is developed in the second chapter. The third chapter focuses on the malt barley sector in Ethiopia. The general agricultural and financial context of the country is presented. The malt barley value chain is then analyzed. It allows to understand who the key actors are and how value and power are distributed. Some general opportunities and challenges, arising with the development of modern value
chains, are highlighted. The fourth chapter studies the specific case of BG MFI which provides input loans to farmers. After a short presentation of the organization, a specific focus is done on BG clients’ integration in the chain and perception of BG input loans. The way the institution interact with other actors in the chain is also presented in order to identify main challenges and risks. The fifth chapter uses all information presented along this paper to provide recommendations to the MFI. The conclusion summarizes the main findings of the research and proposes areas of discussions for future researches on malt barley value chain.

CHAPTER 1 – VALUE CHAIN CONCEPTS

Section 1 - Value chain approach

Value chain definition

The value chain approach focuses on the whole process bringing a product from primary producers to end-consumers (Gereffi et al., 2001). Gereffi et al. (2001: p. 3) define global value chains as “activities that are required to bring a product or service from conception through the different phases of production (involving a combination of physical transformation and the input of various producer services), delivery to final consumers, and final disposal after use”. Following Bastiaensen and Marchetti (2011), value chains represent interlinkages between different actors, in principle collaborating in order to create more value at their level, and to increase the total benefits and competitiveness of the whole process.

The notions of value creation and governance are key and differentiate value chain approach from other related concepts. The creation of value is a broad idea which encompasses value added (or lost) at each step of the process and for each actor interacting with the chain. It can take the form of “salaries for employees, net profits for asset owners, tax revenues, consumers surplus and other externalities” (Neven, 2014: p. 7). Value is often created through “innovation in products, processes and marketing” (Tefera, Bijman & Slingerland, 2016: p. 2). Governance refers to lead firms able to influence other actors and to define the conditions of
their participation (Bolwig et al., 2010; Gereffi et al., 2001). In the literature, chains are often defined as producers or buyers-driven, depending on which actor takes the lead (Memedović & Shepherd, 2008). Frederick and Gereffi (2009) add more nuances and defined five different models of governance as follow:

- Market chains, where there is no specific collaboration between actors, prices are the main components influencing relationships. Switching from one actor to another is therefore easy.
- Modular chains encompass simple and standardized production activities. Switches in collaboration are easy but, information flows between buyers and supplier are key to ensure products or services’ requirements are met.
- In relational chains, complex information is exchanged all along the chain. Lead firms are the ones defining products or services requirements. Producers differentiate themselves on specific characteristics as quality or geographical origin. Trust is key and switches in collaboration are very costly.
- Captive chains are characterized by a large number of producers supplying to few buyers. They have lot of power and define the terms of participation. Procurers need to meet specific standards, which makes them highly dependent of buyers.
- In hierarchical chains, lead firms own all the process from products or services’ production to commercialization.

**Figure 1 - Value chain governance models**

Source: Frederick and Gereffi (2009: p. 2)
Value chain analysis

Value chain analysis (VCA) identifies who and what influence the chain, what the relationships between the different actors are and where value is created (Miller, 2011). It allows to map the chain and understand the key function of each actor (Tefera et al., 2016). According to Tefera et al. (2016: p. 3), VCA is a useful tool to improve chain efficiency as it permits “to identify change drivers and blockages at each stage of the chain and will suggest a framework for interventions to change or resolve those challenges”. Beyond the notion of efficiency, VCA also allows to determine who is benefiting from chain development and how actors are included. Bastiaensen and Marchetti (2011) insist on the importance of understanding what the inclusion/exclusion criteria are and how value is distributed along the chain. Attention should be paid to the terms under which actors are included and on the positive and negative impact of participation or non-participation (Bolwig et al., 2010).

Bolwig et al. (2010) highlight the need to consider both vertical and horizontal linkages when analyzing value chains. The verticality represents the relations between the buyers and the suppliers (Bolwig et al., 2010). Three concepts are key in this regard: type of cooperation between the actors, conditions of participation and upgrading possibilities (Bolwig et al., 2010; Gereffi et al., 2001). The type of cooperation refers to the basis on which the different actors interact (Frederick & Gereffi, 2009). The conditions of participation are, for example, products/services’ standards or certification (Bolwig et al., 2010). “Four different types of upgrading can be distinguished: process upgrading (increasing the efficiency of internal process within individual links in the chain and between the links in the chain); product upgrading (introducing new products or improving old products); functional upgrading (increasing value added by changing the mix of activities conducted within firms or moving the locus of activities to different links in the value chain); and chain upgrading (moving to a new, qualitatively better value chain)” (Bastiaensen & Marchetti, 2011: p. 477). The horizontality includes elements from the global system which influence participation in the chain as well as the way it is designed (Bolwig et al., 2010; Hellin & Meijer, 2006). As underlined by Bastiaensen and Marchetti (2011), a value chain is not only a matter of market
or contract relationships. It also encompasses social interactions embedded in the local context (Bastiaensen & Marchetti, 2011). External (formal and informal) actors influencing the chain need therefore to be considered in the analysis (Tefera et al., 2016).

**Section 2 - Agricultural value chains**

**Agricultural value chains characteristics**

Key activities in agricultural value chains are “primary production (farming), post-farm production, marketing and distribution services (domestic and international) and eventual recycling” (Memedović & Shepherd, 2008: p. 5). Pre-farming activities, as the creation of machines and provision of inputs, are also sometimes included (Memedović & Shepherd, 2008). Most of the global value chains in the food sector are buyer driven (Bastiaensen & Marchetti, 2011). Value is mainly created at the marketing or distribution level, and power concentrated in the hands of a few buyers, often multinational companies located in developed countries (Bastiaensen & Marchetti, 2011; Memedović & Shepherd, 2008; Neven, 2014). Food value chains are complex as seasonality and perishability of goods make business uncertain (Ali, 2018). According to Bastiaensen and Marchetti (2011), innovation, diversity as well as new food security and quality standards reinforce the complexity of the process. Strong coordination is needed between buyers, suppliers and producers (Bastiaensen & Marchetti, 2011). Depending of the complexity of the process, relationships between the actors will be a mix between market and hierarchical interactions (Bastiaensen & Marchetti, 2011).

It has been shown that growth in the agricultural sector can have a positive impact on poverty reduction (more than growth in other sectors) (World Bank, 2006). Majority of the poor in the word are indeed depending on agriculture as income generation activities and food supply (Memedović & Shepherd, 2008). In theory, the development of global value chains in the agricultural sector gives new opportunities for small farmers. The rise of the demand and knowledge transfers from developed countries have the potential to enhance entrepreneurship, diversify the market, increase revenues and create jobs (Memedović & Shepherd,
However, the impact of global value chains’ development on poverty reduction is not straightforward and also raises new challenges for small farmers. They often suffer from asymmetry of power, lack competencies, financial resources, access to infrastructures as well as institutional support (Fries & Akin, 2004; Memedović & Shepherd, 2008; Patil & Jha, 2016; Trienekens, 2011). It often makes them unable to meet the high requirements to participate in modern chains (Fries & Akin, 2004; Memedović & Shepherd, 2008; Tefera et al., 2016; Trienekens, 2011). In this context, global value chains risk to favor bigger farmers, better able to meet quality standards, high volumes, short time delivery or to cope with products’ design evolution and price volatility (Fries & Akin, 2004; Memedović & Shepherd, 2008; Patil & Jha, 2016; Trienekens, 2011). Rather than creating new opportunities, global value chains can reinforce poor’s vulnerability, if they are stuck in risky and low-value added market-based transactions (Bastiaensen & Marchetti, 2011).

In the literature, two main concepts are often presented as key to enhance participation of small producers in global agri-food chains: marketing of production and contract farming. Marketing (or access to market) means evolving from a subsistence to a market-oriented production (Ali, 2018). It has been presented as a way to help farmers increasing their revenues and getting out of poverty (Ali, 2018). However, results vary according to different studies (Ali, 2018). In some cases, producers have to face higher costs to participate in the chain, which decreases their ability to benefit from higher revenues (Michelson, Reardon and Perez 2011). Other examples also showed that, due to power and information asymmetry, small producers are sometimes exploited, and participation is not always benefiting them (Fries & Akin, 2004). Contract farming is often presented as the solution to facilitate coordination between producers and buyers. According to Ali (2018), contract farming can help to reduce transaction costs and uncertainty in buyers-producers relationships. It can benefit farmers by facilitating access to inputs, help them to meet volume and quality requirements and secure access to market (Ali, 2018). However, Ali (2018) also mentioned that making contract farming work is costly, due to ex-ante costs to set up the relation and ex-ante costs to monitor it. Oya (2012) showed also that contract farming works only under certain conditions: low competition and a market characterized by one buyer and
many producers. Moreover, this mechanism does not challenge enough the power and rules within the chain as buyers are still the ones defining terms of participation (Oya, 2012). In some cases, rules in place risk favoring better-off farmers and excluding smaller ones (Zhang, 2012).

**Agricultural value chain finance**

Financial support is key to sustainably include producers in agricultural value chains (Neven, 2014). It “allows smallholder farmers to purchase farm inputs, machinery, and running costs of the farm”, which helps them to increase productivity and meet value chains requirements (Fakudze & Machethe, 2015: p. 730; Middelberg, 2017). However, smallholders in rural areas face many challenges in accessing adequate financial services (Fries & Akin, 2004; Patil & Jha, 2016). Due to uncertainty and insufficient collateral, servicing rural districts represents high transaction costs and important risks for financial institutions (Fakudze & Machethe, 2015; Fries and Akin, 2004; Middelberg, 2017; Patil & Jha, 2016). Most of them are therefore reluctant to develop their activities in remoted areas. In many developing countries, state owned rural banks and government programs tended to solve the issue, but most of the projects faced high default rate, inefficiency and did not succeed (Fries & Akin, 2004). Because of their failure, alternative financial organizations, as MFIs, emerged (Fries & Akin, 2004; Patil & Jha, 2016). While the majority focuses on low income people in urban areas, some of these financial institutions manage to develop their services in remoted rural regions (Fries & Akin, 2004; Patil & Jha, 2016). However, products are often not flexible enough and do not totally meet producers’ needs (Fries & Akin, 2004).

Given the importance for farmers of having access to adequate financial resources, alternatives need to be found. In this regard, value chain financing tools seem to be a way to improve small producers’ access to financial resources (Fries & Akin, 2004). Miller (2011: p. 5) defines the value chain finance as “any or all of the financial services, products and support services flowing to and/or through a value chain to address the needs and constraints of those involved in that chain”. The linkage with the chain makes it different from classical bank products and...
services (Miller, 2011). Value chain finance instruments vary according to the actors involved (internal or external to the chain), the support provided (financial or insurance) and the guarantee used (future sales, receivable, warehouse, securities) (Miller, 2011). Miller (2011) defined 16 different instruments, details can be found in Appendix 1. By using new delivery channels and new types of collateral, value chain finance eases the access to financial services for small producers (Fries & Akin, 2004; Miller, 2011; Patil & Jha, 2016). However, monitoring the process can be very costly (FACASI, 2015). High coordination and cooperation between different actors, as well as a strong embeddedness in the local context are needed to be efficient (Middelberg, 2017). Contract enforcement is not easy, and buyers are susceptible to face side selling (FACASI, 2015). It also risks making small producers too dependent of other actors in the chain and more vulnerable (Fries & Akin, 2004; Miller, 2011). Moreover, while it meets short-term financial needs, mechanisms developed often do not provide sufficient resources for longer-term investments and tend to favor larger farmers better able to meet the requirements (Fries & Akin, 2004; Miller, 2011). A last challenge concerns regulation which is not adapted in some cases as the provision of services based on guarantee in kind (Fries & Akin, 2004; Miller, 2011).

According to Fries and Akin (2004) as well as Meyer (2007), getting involved in value chain financing is riskier for external actors, as MFIs for example, because they have less information and guarantee within the chain. Bastiaensen and Marchetti (2011) defend a different point of view. They highlight the key role that MFIs can play thanks to their embeddedness in the local context and their ability to better enforce contracts (Bastiaensen & Marchetti, 2011). Their intervention can be particularly impactful when they develop a microfinance plus approach, meaning that they provide access to finance as well as other production/market support (Bastiaensen & Marchetti, 2011). Bastiaensen and Marchetti (2011) insist on the fact that, while access to finance is key for small producers, it is not enough. In the literature, many researchers studied the case of MFIs providing value chain financing. It often takes the form of disbursement of input loans, in kind or in cash, and facilitation of market linkage by buying back farmers’ production (FACASI, 2015). While it has been showed that these services can have a positive impact on small producers’ inclusion in global chains, value chain
financing present some challenges for MFIs. In their research, Kopparthi and Kagabo (2012) highlight that MFIs need to have a good knowledge of production costs and market prices, in order to provide adapted loans and to adequately assess farmers’ ability to reimburse. Meyer (2007) insists on the need for external actors to focus on areas where they can add value, where processes are inefficient, demand still unmet and costs high. Rather than focusing on farmers directly, they can for example act at a larger scale by supporting actors providing internal financial services to other participants within the chain (Meyer, 2007).

CHAPTER 2 – RESEARCH OBJECTIVES AND METHODOLOGY

Section 1 - Objectives

BG has been involved in inputs financing for more than 10 years. Since 2013, the organization participates in Heineken project to support producers’ integration in malt barley value chain. Value chain development is very popular in the sector and new actors get involved. The MFI is increasingly solicited by different partners and malt barley inputs financing is becoming more and more important for the organization. In this context, BG would like to assess the value added from its services and to identify new opportunities and risks emerging from the changes in the market.

The aim of this paper is to make some recommendations to help the organization to define its future strategy regarding malt barley inputs financing and value chain integration. To achieve it, the research encompasses three sub-objectives:

1. Understanding the evolution of malt barley value chain in Ethiopia;
2. Understanding the way BG clients value the services provided by the MFI;
3. Understanding BG integration in the chain.

Section 2 - Methodology

To achieve the objectives mentioned here above, primary and secondary data were analyzed. Interviews were conducted to collect information on malt barley value chain functioning in Ethiopia, with a specific focus on the role played by BG.
Secondary data, as BG business operation policies and annual reports, were also used to understand malt barley inputs financing processes. All the data collected were analyzed in the light of the concepts and attention points developed in the literature review presented in the previous chapter.

BG is active in the Oromia state. The research focuses on the Arsi region, where malt barley is mainly produced. Interviews of staff and clients where conducted in one conventional branch (CB), in Assela, and three rural services facilities (RSF), in Sirbo, Lemu Kara and Koma Katara. These locations were chosen because they concentrate most of the malt barley input loans clients. Collecting information from both CB and RSF was important to identify different challenges according to the localization and the loan methodology applied (group or individual). Staff from head office were also interviewed to have an overview of the management of the process and interactions with key partners in Addis Ababa. Different stakeholders were also included in the panel. In total, 45 persons were interviewed: 21 clients, 12 staff and 12 stakeholders. The list of the persons interviewed can be found in Appendix 2. Interviews were conducted using open questions and focused mainly on qualitative data. It allowed to collect information on relationships within the chain, as well as to understand different perceptions regarding BG role and added value from its services. Individual as well as group discussions were organized. While individual interviews allowed to collect more detailed information, focus groups generated more interactions and exchanges of ideas. Questions were asked in English and BG marketing head ensured the translation in Afan Oromo. He also supervised this research and reviewed the questionnaire. Different questions were prepared according to the actors interviewed.

The limited scope of the research needs to be taken into consideration when analyzing the results. It focuses on a small sample of clients and partners. Unfortunately, due to time shortage, non-clients were not interviewed. Comparison with the performance of alternative channels or non-participating farmers is therefore difficult. Key actors as primary cooperatives, model farmers or the malting factory Soufflet are also missing while it would have allowed to better understand the big picture. Additionally, it was not easy to collect up-to-date and consistent quantitative data from farmers and from the MFI, which makes value-
added and trends analysis difficult. The focus was more on qualitative data and the objectivity of the answers can be questioned. Interviews were done in the presence of one BG employee. It is possible that clients and staff did not dare to express their real perception on BG services. Moreover, some information was probably missed or misunderstood due to the translation process. Finally, the analysis focuses mainly on farmer economic opportunities, and the broader impact on other aspect as gender issues for example (only men farmers were interviewed) was not considered. It is useful to remind that this thesis is an Extensive Internship Report. The research methodology is therefore not as rigorous of for a Standard Master Thesis. However, date collected were useful enough to understand the market and make practical recommendations to the MFI.

CHAPTER 3 – CONTEXT SETTING

Malt barley market and value chain in Ethiopia were analyzed by many authors. The following part presents the main findings of the different researches realized so far. Information is completed with more up-to-date information collected in June 2019, through interviews with BG stakeholders. The chapter starts with a general overview of the agricultural sector in Ethiopia, with a focus on financial constraints faced by farmers, importance of MFIs in the country and malt barley sector main characteristics. The specificities of malt barley value chain are presented in a second section. The actors involved at each step, from production to commercialization, are detailed. A focus is done on relationships between them and some practical examples are presented. The section ends by highlighting the main opportunities and challenges characterizing the malt barley value chain in Ethiopia.
Section 1 – Agriculture, financial support and malt barley in Ethiopia

Agriculture and financial inclusion

Agricultural sector

Agriculture activities represent a large part of the Ethiopian economy. The majority of the population is living in rural areas and depends on agricultural revenues (World Bank, 2019). The sector is dominated by smallholders’ farmers who cover 95% of the total activities (Mersha & Ayenew, 2018; Mukasa, Simpasa & Salami, 2017). Ethiopia is engaged in the production of different products: “cereals, coffee, oilseed, cotton, sugarcane, vegetables, khat, cut flowers; hides, cattle, sheep, goats; fish” (CIA World Factbook, 2018: p. 1). Cereals production represents a high part of the agriculture. The five most cultivated cereals are maize, teff, sorghum, wheat and barley (CSA, 2018). The development of the agricultural sector is one of the government’s priorities (Tefera et al, 2016). The state plays a strong role and controls many of the related activities. The sector is structured according to the administrative division of the country: kebele (commune), woreda (district), zone, region. Key actors are primary cooperatives. They are owned and managed by local communities but strongly influenced and supervised by the government. They are in charge of giving direct support to farmers by facilitating access to inputs and machinery, providing training, enhancing market linkages, etc. A group of 20 cooperatives (on average) forms a union. They are present at woreda level. They support primary cooperatives and serve as intermediaries with federations. Federations represent farmers’ interests at the zone level. In parallel, agricultural offices provide specific support for crops production, natural resources and animal production management. A dedicated agent supervises and assists primary cooperatives. Recently, Farmers Services Centers (FSCs) have been developed in Ethiopia. They were initiated by different non-governmental organizations (NGOs) with the support of governmental agencies. Nowadays, Ethiopia counts around 31 FSCs, but the government aims to further develop this channel. They provide various inputs as well as storage facilities. Their aim is to be a one-stop-shop solution for farmers. They can be managed by primary cooperatives or other private actors, depending on their capabilities. The selection
of the management body is done by NGOs promoting the project. While FSCs reinforce primary cooperatives in some areas, they strongly compete with them in other locations. These last years have been characterized by many changes in the agricultural context in Ethiopia. The country slowly opened to international and private actors (Tefera et al., 2016). Commercialization of the sector is one of the biggest observed change (Ali, 2018). While this evolution brought some improvements and modernization, many production challenges still remain, such as access to improved seeds and chemicals (Tefera et al., 2016). Access to financial services is another key constraint for producers, as well as for other actors involved in agricultural activities (FACASI, 2015).

**Access to finance and MFIs**

Financial inclusion is very low in Ethiopia. In their research, Mukasa et al. (2017) found that 66.6% of small farmers are unable to access a credit to support their activities. Key actors in providing financial services in rural areas are Savings and Credits Cooperative Organizations (SACCOs) and MFIs (Planet Rating, 2011). Informal savings and credits networks are also very active in the country (Sebstad, 2003). The MFIs’ market in Ethiopia counted around 33 MFIs in 2013 and is mainly dominated by governmental organizations (FACASI, 2015; Planet Rating, 2011). Most of the MFIs are active in urban areas (FACASI, 2015). They provide credit and savings facilities. Very few of them offers other services as SMEs support, microinsurance, money transfer, “remittances, pension and leasing products” (FACASI, 2015; Planet Rating, 2011: p. 3). Group loans is the most common methodology even if more and more MFIs also provide individual loans (FACASI, 2015). Credits are often linked with compulsory savings (FACASI, 2015). In 1996, a new regulation forced NGOs providing financial services to regulate into non-bank financial institutions. Following this change, the market evolved from NGOs’ free-interest loans and high non-repayment towards profit-companies increasing their prices but being more efficient (FACASI, 2015). Both private and public led MFIs aim to achieve operational sustainability and charging high interest rate to cover costs is less problematic than in the past (Sebstad, 2003). However, most MFIs kept their social goals and, while they want to make profit, they do not distribute dividends (FACASI, 2015). Governmental MFIs
generally have a bigger outreach, especially in rural areas, but are strongly influenced by governmental policies (Sebstad, 2003). According to Sebstad (2003), their activities are often linked to state’s agricultural programs, which complexifies the process. Even if the financial sector evolved thanks to more adapted regulation and opening to private actors, it still does not meet farmers’ demand (Elias, 2018). Investment from foreign investors continues to be forbidden, and MFIs and SACCOs often lack resources and capabilities to extend their outreach (FACASI, 2015; Geleta et al., 2018; Planet Rating, 2011).

**Malt barley market**

Barley is the 5th most important produced cereal in Ethiopia and the country is the second largest producer in Africa (CSA, 2018; Kifle, 2016; Tefera et al, 2016). The Oromia and Amhara highlands’ regions (high altitude) have especially good agro-ecologic conditions to grow barley and concentrate the majority of the production (Kifle, 2016; Rashid et al., 2015; Tefera et al, 2016; Usman & Zekele, 2017). Barley is used as an ingredient for local food and beverages, for malting and feeding animals (BIF, 2018; Kifle, 2016; Rashid et al., 2015). Two different types of barley are produced: food barley and malt barley (Kifle, 2016; Tefera et al, 2016). Food barley is only dedicated for food consumption. Malt barley is a key ingredient for beers’ fabrication but can also be used to make local food products (Debela, 2016). The quality and production requirements are not the same for the two kinds of barley (Usman & Zekele, 2017). For beer production, malt barley grains need to meet specific requirements such as appropriate content of protein and level of moisture, germination ability, specific grain size, purity, etc. (Tefera et al., 2016). Some characteristics can be measured visually, others need to be check in laboratories (Tefera et al., 2016). The economic trends are also very different. The food barley represents 90% of the total production and is mainly used for household food consumption (more than 80%), the rest is sold or kept as seeds (Ali, 2018; Kifle, 2016; BIF, 2018; Usman & Zekele, 2017). Malt barley represents only 10% of the total barley production and is mainly commercialized, between 70 to 80% is sold on the market (Ali, 2018; BIF, 2018; Kifle, 2016; Usman & Zekele, 2017). While food barley is in surplus and can be exported, there is a shortage of
malt barley in the country (Usman & Zekele, 2017). Breweries count therefore on importation to cover their needs (Debela, 2016).

Economic growth, higher income and urbanization in Ethiopia led to an increase of beers’ consumption and high demand for malt barley in the country (Ali, 2018; BIF, 2018; Kifle, 2016; Tefera et al, 2016). New international actors emerged, and old factories were privatized and modernized (Ali, 2018; Kifle, 2016; Tefera et al, 2016). As the local malt barley production is unable to meet the requirement of these new actors, both in terms of quantity and quality, public and private partnerships emerged to support farmers and improve productivity (BIF, 2018; Tefera et al, 2016). New improved seeds were introduced and a strong attention is paid on improving producers’ access to inputs (seeds, fertilizers and chemicals), capacity building of actors all along the value chain (especially smallholders, primary cooperatives and malting companies) as well as easing the marketing process (Kifle, 2016; Tefera et al, 2016).

Section 2 - Malt Barley value chain in Ethiopia

The actors and their activities

Different private and public actors are involved in the malt barley value chain. The process from production to consumption can be divided in the following activities: inputs provision, production, trading, processing, distribution and final consumption. Various organizations are also involved at different level of the value chain in order to facilitate the process and to give support to participants. This research focuses on the chain from input production to processing activities done by malting companies or breweries. The following figure presents the main actors involved in malt barley in Oromia State.
Figure 2 - Key actors in malt barley value chain in Oromia State, Ethiopia

Source: computed by the author based on information from the literature and from interviews

**Inputs provision**

In Ethiopia, seeds’ multiplication and certification are controlled by the government. In Arsi region, the Oromia Seeds Enterprise (OSE) is in charge of these activities. In the case of malt barley, majority of improved seeds are developed by private actors as Heineken or Soufflet for example. They provide original seeds to OSE which plays a role of sub-contractor. According to their request, OSE multiplies, cleans and packages the seeds. Only a few varieties are owned by the government and produced out of these agreements. The seeds are then accessible through OSE stores, unions and primary cooperatives, dedicated agents or through private companies own stores. Improved imported seeds allow to achieve higher yield (Debela, 2016: Debela, 2018). However, they are less resistant to local environment than local seeds and require the use of more important amounts of fertilizers and chemicals. About fertilizers, the government has a strong monopoly. These products can only be accessible through unions or primary cooperatives. The chemicals market is more open. They are accessible through unions and cooperatives as well as through private dealers (Debela,
In malt barley, Axial and Palace are used as herbicides and Rex-Duo as pesticides. Access to agricultural inputs is a challenge in Ethiopia. Even if the market slowly opened to private actors, it is still strongly controlled by the government and mainly dominated by unions and primary cooperatives (BIF, 2018). Many authors highlighted that these actors are not efficient and unable to meet farmers’ demand (BIF, 2018; Debela, 2016; Kifle, 2016; Tefera et al, 2016). Traders, model farmers and MFIs started therefore to play a formal or informal intermediary role to facilitate inputs’ access for farmers. This is especially the case in the new malt barley value chain projects developed in partnership with malting companies and breweries.

**Production**

The malt barley value chain in Ethiopia is characterized by many producers for only a few buyers. As it is the case for the agricultural sector in the country, most of the malt barley producers are smallholders’ farmers (BIF, 2018). However, model farmers are also involved in malt barley production and play a key role in the value chain (Ali, 2018; Debela, 2016). Model farmers are bigger producers that serve as examples and provide services to smaller producers in their network. They are used by governmental agencies and private companies as a way to get in touch with smallholders’ producers in remoted rural areas (Debela, 2016). They often have bigger financial resources and the ability to test or implement new processes or products. Farmers’ profile strongly varies from one place to another. Most of the farmers have their own land, with the size depending on their wealth (Debela, 2016). If they have extra resources, farmers can rent additional land. Large farmers use tractors and combine harvesters. They have their own machines or rent them. Smaller farmers generally use oxen. If they don’t have their own, they can also rent the animals. Small farmers from the same community informally support each other and share production means. As it was explained before, most of malt barley production is sold on the market. The price a producer will get is influenced by the quality and quantity of grains, the moment in the year as well as by the buyers to whom the farmer sells. Producers have the opportunity to sell to traders or local collectors, primary cooperatives and unions or directly to malting factories and breweries. Farmers’ localization (region and distance from
main roads) as well as their wealth have also an influence (Rashid et al., 2015). While some producers need cash and sell their production directly after harvest (at lower price), other are able to wait a few months till prices increase (Rashid et al., 2015). Most of the farmers use primary methods of storage: bags on the floor in their house (Kifle, 2016; Rashid et al., 2015).

Trading

Three main actors are involved in buying malt barley from the farmers: traders, primary cooperatives and processors (malting factories or breweries) (Ali, 2018; BIF, 2018; Rachid et al., 2015). The importance of each actor varies according to the region where the malt barley is produced. A report on malt barley written by Debela (2018) showed that, in Oromia state, 50% of the malt barley is marketed through traders, 46% through cooperatives and the remaining directly from commercial farms and small farmers toward malting companies or breweries. Traders are key actors in the process and their profiles diverse. Some are only involved in trading, others are farmers which diversified their activities (BIF, 2018; Rachid et al., 2015). They collect supply from small farmers and sell it to different buyers: beers’ processors, local food producers or directly to consumers on the market (Ali, 2018; Tefera et al., 2016). Some traders are able to store production and to sell it later at better price, others are not able to do so (Ali, 2018). A trading license is needed to exercise this activity. However, interviews conducted during this research highlighted that illegal traders collect farmers’ production and sell it to other bigger traders. The market is slowly changing with the development of the value chain, as primary cooperatives, model farmers and MFIs play an intermediary role in collecting farmers’ production.

Processing

The main actors in processing malt barley are malting companies and breweries (Tefera et al., 2016). Most of the malt barley is processed through malting companies. Only a small part is directly used by breweries. They need 70% of malted grains and only 30% of raw malt barley to produce beers. Two malting factories are active in Ethiopia: Assela Malt Factory (AMF) in Oromia region and
Gondar Malt Factory (GMF) (Rachid et al., 2015; Tefera et al, 2016). As the demand for malt barley is increasing, they are not able to meet breweries requirement for processed malt barley (BIF, 2018; Debela, 2016). Two new international malting companies were therefore invited to develop their activities in Ethiopian: Boortmalt and Soufflet. They are building new malting factories and should be able to operate in 2020. Both actors are already engaged in integrated value chain projects. Since 2015, eight big breweries are present in the country: “Saint-George, Meta-Abo, Harar, Bedele, Dashen, Walia, Habesha, and Raya. Heineken owns three breweries (Harar, Bedele and Walia), while Diageo and Bavaria own Meta-Abo and Habesha respectively.” (Tefera et al, 2016: p. 7) Saint-George is now part of Brasseries Glacières Internationales (BGI) group and is the leader on the market (Ali, 2018; Tefera et al, 2016). Heineken is the second most important actor (Tefera et al, 2016).

Support functions

The development of malt barley value chain is a priority for the Ethiopian government, to improve small farmers’ livelihood but also to reduce importation. Many organizations are involved in providing support to the farmers: governmental agents, primary cooperatives, NGOs, MFIs and model farmers (BIF, 2018; Kifle, 2016; Tefera et al, 2016). All these actors work in close collaboration with private enterprises as seeds providers, malting companies and breweries (Kifle, 2016). Support varies from technical assistance and training to the provision of financial means, facilitation of inputs’ access, market linkages or management and capacity building for farmers organizations (Tefera et al, 2016).

Many internal actors are financing small producers in malt barley value chain. In the past, when they started their projects, most breweries and malting factories were directly financing farmers to support their production (Debela, 2016; Tefera et al. 2016). Like the lead firm credits process defined by Miller and Jones (2010), they provided financial, technical and market support in exchange of the guarantee that production will be sold back to them after harvest. Credits were disbursed in kind (seeds) and reimbursement often also done in kind, after harvest (Debela, 2016; Tefera et al. 2016). Nowadays, they mainly focus on financing
intermediaries, as traders and primary cooperatives (Tefera et al. 2016). These organizations give then financial support to farmers (Debela, 2016; Tefera et al. 2016). Their services correspond to the trader credits described by Miller and Jones (2010): they provide support to farmers, buy a part of production after harvest and sell to specific buyers, accepting delay in payment from those ones. Value chain financing is a challenging activity in the Ethiopian context. Indeed, as it will be detailed in the section presenting malt barley value chain challenges, many actors are involved in collection of production, contracts are difficult to enforce, and side selling is common. Many of these actors therefore progressively reduced the scope of their financial support and external actors where solicited (Ali, 2018; Debela, 2016; Tefera et al., 2016). Nowadays, different MFIs are involved in the malt barley value chain. Some of them follow a microfinance plus approach, and as suggested by Bastiaensen and Marchetti (2011), their role goes far beyond financial support. They deliver inputs in kind, provide agricultural trainings and facilitate market linkages (Debela, 2016; Debela 2018). In parallel to these value chain financing projects, the government also tried to support access to inputs for small farmers through the development of a voucher system. According to information published by ATA (2014), before 2013, the commercial bank of Ethiopia provided inputs financing to farmers. It was delivered through primary cooperatives, with government as guarantee (ATA, 2014). But repayment was low, and cooperatives were not able to assume their financial role (ATA, 2014). In 2014, the system evolved: governmental MFIs and SACCOs took the responsibility of providing inputs vouchers to farmers (ATA, 2014). Farmers then used the vouchers to buy inputs in primary cooperatives (ATA, 2014). In 2016, the Ethiopian government even developed an e-vouchers process (ATA, 2019).

Relations within the chain

In Arsi region, Tefera et al. (2016) identifies two types of value chain: the conventional one and the modern one. In the conventional chain, which represents the majority of the market, the main role is played by traders, brokers or collectors (Tefera et al., 2016). Traders have lot of power: they are in contact with different buyers and have better access to quantity, quality and price information than individual farmers (Ali, 2018; BIF, 2018). They take advantage of the information
gap and of farmers’ lack of storage capacity to buy at low prices, generally directly after harvest (Ali, 2018; BIF, 2018; Tefera et al., 2016). There is no contract or prior agreement, prices are discussed on the spot and payment is immediate (Tefera et al., 2016). Through this channel, quality requirements are low and there is no minimum quantity. With increasing demand for malt barley and new companies active in the sector, a more modern chain emerged. This chain is characterized by strong coordination between the actors, at horizontal and vertical levels (Tefera et al., 2016). Malting companies and breweries are lead actors (Tefera et al., 2016). They decide about the quality standards, the time and location of collection as well as on the prices (Tefera et al., 2016). They have high quality requirements and ask for a minimum quantity. Some malting factories and breweries have agreement and sign contracts with (model) farmers, primary cooperatives, traders and/or MFIs (Ali, 2018; BIF, 2018; Debela, 2018; Tefera et al., 2016). Switching from one partner to another is costly for processors as they often invest in capacity building of these actors (Tefera et al., 2016). Considering these characteristics, Tefera et al. (2016) define malt barley value chain as relational and captive. However, it the categorization is not as straightforward. Not all buyers are engaged in value chain agreements. Some breweries still exchange with value chain actors based on market-relations and as contract enforcement is low, producers have the opportunity to sell to other buyers if prices are more interesting (Ali, 2018; Debela, 2016; Tefera et al., 2016).

Power and value distribution evolved with the new value chain projects. In the past, AMF was the only malting factory in the country and had the ability to influence the chain (Rachid et al., 2015). Producers and traders were price takers without any bargaining power (Rachid et al., 2015). Today, new buyers are involved which diversified the market. While producers and traders are still price takers and need to fulfil buyers’ requirements, they are better represented and have better access to information (Debela, 2018). Prices are defined at the regional level, through a platform managed by Agricultural Transformation Agency (ATA). It gathers the key actors in the sector (OS, AMF, breweries, unions, governmental agents, etc.). Each year, they set the minimum price for malt barley, following market and international trends. Breweries and government effort to increase price information positively influenced prices given to farmers for their
production (Debela, 2018). Access to information allows them to better negotiate with local traders or other buyers. According to BG General Manager, even farmers not involved in the chain benefit from this new system. Farmers’ negotiating power therefore increased in both the traditional and modern chain (Rashid et al., 2015). It positively impacts on the value they are able to generate. In their study, Rashid et al. (2015) showed that farmers and buyers are the ones getting the highest part of the value added along the chain. Calculation based on the example presented in their study showed that farmers get 44% of the total value added, which is a bit more than processors (42%) (Rashid et al., 2015). They are also the ones able to generate the highest margin, 35% according to Rashid et al. (2015) example, versus 18% for processors and 8 to 10% for intermediaries.

However, the positive impact of value chain development needs to be nuanced. In some cases, buying conditions set in value chains agreements are less interesting than other opportunities on the market or not adapted to farmers’ needs: some actors propose low price, payments are made with delay, collection timing is not convenient (Ali, 2018; Debela, 2016). The study realized by the Business Innovation Facility (BIF, 2018) highlighted that for some producers, prices are not attracting enough to cover the higher costs they face (inputs, labour, mechanization and transport costs). Debela (2016) also underlined that margin tend to decrease for less better-off farmers located far from urban centers.

Examples of arrangements in the chain

Contract farming is quite new in Ethiopia (BIF, 2018). Heineken is the actor which initiated the concept in the malt barley sector (Ali, 2018; BIF, 2018; Debela, 2018). Based on its positive experience, other companies introduced similar agreements (Ali, 2018). This part presents the way of working of two key actors in the context of this research: Heineken and Boortmalt.
In 2013, Heineken started the CREATE project, in collaboration with the Ethiopian and Netherlands government (Heineken, 2019). While they coordinate the process, Heineken outsources coordination of operations to the NGO EUcord. The CREATE project is an integrated value chain initiative, covering activities from seeds’ provision, supervision of production process, towards marketing to Heineken. It aims to improve farmers’ productivity and to secure malt barley supply. Their objective is to reach 99% of local sourcing for malt barley in Ethiopia. In 2018, they reached 31,832 farmers beneficiaries and were able to collect 8500 tons of malt barley from these farmers.

The project started with the development of improved seeds, in partnership with Holota Agriculture Research Centre and Ghent University of Belgium (BIF, 2018; Debela, 2016). Heineken provided eight different seeds and two were certified for the Ethiopian market: Traveler and Grace. Another new improved seed is under development. Heineken collaborates with primary cooperatives, model farmers and MFIs to get in touch with smallholders’ farmers. These actors play a key coordination role in the process. They give support to small farmers, manage distribution of inputs as well as the collection and supply of malt barley to Heineken (Debela, 2016). Contracts are signed between them and Heineken. However, engagement is flexible. There is no strict obligation from the producers to sell back to Heineken, neither from Heineken to buy from them. Each partner is free to sell/buy according to its prices’ preferences. Model farmers and cooperatives get commissions for their facilitating role. MFIs do not receive any commission as they make money with fees and interest on input loans. Cooperatives are reported as ineffective (delay in inputs’ distribution, late collection, limited working capital) (BIF, 2018; Debela, 2016). But, due to government pressure, Heineken still has to work with them. According to different authors and the interviews conducted, model farmers are the most performant partners (Debela, 2016; Tefera et al., 2016). They are carefully selected by Heineken. “Social capital, commitment, assets and leadership figure” are considered by Heineken to engage with a lead farmer (Terefa et al., 2016: p. 22). MFIs are the second-best performant partners. Heineken works with four MFIs in
Ethiopia: BG, Wasasa, Harbu and Metemamen Microfinance. They are key in the process as working with MFIs allows indeed to ensure that small farmers with low financial resources are not excluded.

Heineken directly provides improved seeds to their partners which then distribute them to the farmers in their network. In the starting of the project, to encourage farmers to use their new improved seeds, Heineken provided the seeds on loan (without interest rate) directly to the farmers (Debela, 2016; Tefera et al., 2016). They worked with their partners to get in contact with them but managed the whole financial process. They slowly decreased the amount of loan and completely stopped after three years as enforcing repayment was not easy and as managing the process was taking too much time and resources. They also pre-financed primary cooperatives and model farmers, but default rate was too important. Today, they only pre-finance MFIs. Heineken also invested a lot in the training of the farmers and its partners. They work in close collaboration with different NGOs and development agents (Debela, 2016). Previously, Heineken was offering a lower price than other actors. It was therefore not easy to encourage farmers to sell back to them. Today, the situation improved as they increased their price to compete with other buyers. Because of the complexity of their internal organization, Heineken also faced some problems to pay farmers on time (Debela, 2016). The problem was solved thanks to the arrangement with intermediaries. Farmers are paid by those ones and Heineken can pay its partners later on. Heineken is globally satisfied with the different arrangements as productivity and quality increased. However, they can only buy 34% of processed malt barley from Ethiopia because AMF lacks processing capacity. They therefore still need to import a large part of malted barley. For the future, they plan to work closely with the new malting factories, Soufflet and Boortmalt. The link between Heineken and Soufflet is strong. Soufflet will indeed take over the coordination of the CREATE project in a few years.

**Boortmalt**

The Ethiopian project is the first non-European project for Boortmalt. It started 5 years ago. It is divided in two parts: the construction of a new malting factory and
the development of the malt barley value chain. The malting factory aims to buy 100% of malt barley locally. The factory is not ready yet but, Boortmalt already started to develop a value chain project, to prepare the market. Boortmalt works with primary cooperatives and with nuclear farmers. They sign contract agreements with unions and nuclear farmers. Unions sign contracts with primary cooperatives, which sign contracts with their farmers. Contracts do not guarantee the selling back of the production. Trust is key in the process, especially with farmers. Due to politicization and cronyism, working with primary cooperatives is not easy and the partnership with nuclear farmers is easier. Like Heineken, Boortmalt provides improved seeds to primary cooperatives/nuclear farmers which distribute it to smaller farmers (members and non-members). They provide Traveler, Holker and their own new Explorer seeds, depending of the environment characteristic of the area. They closely monitor the process from production to collection after harvest. They provide trainings, make demonstrations and realize field visits during production time. One Boortmalt field agent is always present during collection of farmers’ malt barley production, which takes place in cooperative offices or in nuclear farms. Boortmalt agent facilitates the process of quantity and quality measurement. To reinforce farmers’ trust, quality is measured in front of them and they give explanations. For now, as they don’t have their factory yet, Boortmalt sells malt barley collected to other breweries and malting companies. In the starting of the project, Boortmalt provided seeds on loans to primary cooperatives and nuclear farmers. They also pre-financed a part of the grains collected by those ones. However, they want to stop any financial support in the future. In this regard, they are trying to build partnerships with two MFIs: BG and Harbu. Their aim is to develop a process that allows to separate financial transactions from other activities. MFIs will focus on the financial flows at each step of the process: collect farmers’ payments for inputs purchase (cash or credit) and proceed to farmers’ payment when they sell their production. Primary cooperatives will take care of seeds’ distribution, follow up of production and collection of malt barley grains, without managing financial flows. Strong cooperation will be needed between the different actors. To facilitate the process, Boortmalt developed a Voucher Application that allows to electronically manage information flows.
Opportunities and challenges

Opportunities

The malt barley market is expanding in Ethiopia and all actors interviewed confirmed that the demand will increase in the future. The presentation here above showed that new value chains arrangements offer good opportunities for the different actors participating in the chain. Farmers get access to financial and non-financial support, which helps them to benefit from easier access to inputs, especially improved seeds, and “to technologies that help them to increase productivity, quality and in the end profitability” (Ali, 2018; Debela, 2016; Tefera et al., 2016: p. 5). According to Ali (2018), these value chain arrangements allow small producers to upgrade in two different ways. The first one is a “scaling-out” opportunity (Ali, 2018: p. 2968). Increasing demand and support given to farmers offer an opportunity for new entrants to participate in the chain (Ali, 2018). The second upgrading possibility identified by Ali (2018: p. 2968) is a “scaling-up” opportunity allowing farmers to increase their productivity and their income. This is confirmed by ATA (2018) analysis which shows that producers involved in value chain projects achieve better productivity than excluded farmers. Their productivity is from 9 to 15% higher than the regional average (ATA, 2018). Quality improvement and market linkages also help them to commercialize their production and to benefit from better prices (Ali, 2018; Kifle, 2016; Debela, 2016). Ali (2018) highlights that the price premium can be 10% higher than for non-contracting farmers. In their report on the malt barley market in Ethiopia, the BIF (2018) also showed that the price premium for malt barley is 15% higher than for food barley. It is important to note that inputs’ costs are also higher for farmers included in modern chains (Debela, 2016). However, thanks to the increase of prices, they are still able to make more important margins (Ali, 2018; Debela, 2016). In his study, Debela (2016: p. 19) showed that “malt barley producers are making a gross margin of about 171% on their investment on average against 67% and 84% on food barley and bread wheat respectively”. Beside the product (better quality) and process (better production mechanisms and linkage to the market), functional upgrading is also observed. Some farmers are able to assume new role as trading activities (BIF, 2018; Rachid et al., 2015). Finally, malt barley
value chain developments benefit malting companies and breweries. They reported that the volume supplied and the quality of the production from small farmers improved these last years (Ali, 2018). Nowadays, AMF is able to locally source 100% of its malt barley (ATA, 2018).

**Challenges**

Even if interviews and different studies confirm the positive impact of contract farming, it was also highlighted that participation is still difficult for small farmers. A key challenge is the difficulty to access to quality inputs. While the market improved these last years, the provision of seeds, fertilizers and chemicals is still a problem in the country (Ali, 2018; Tefera et al, 2016; Usman & Zekele, 2017). Due to the complexity of the market, inputs are not always available or are delivered with delays (BIF, 2018; Debela, 2016). Quality is also a problem. Products are sometimes damaged or sold after expiration (BIF, 2018; Kifle, 2016). Beside the difficulty to access inputs, farmers often lack knowledge on how to use fertilizers and chemicals (Kifle, 2016; Rashid et al., 2015; Usman & Zekele, 2017). Other difficulties highlighted are the need for plowing and harvesting machines, quality and quantity measurement instruments, storage infrastructures and better financial support (BIF, 2018; Debela, 2016). In this context, small producers are not always able to achieve high productivity and to meet processors’ quality requirements (Tefera et al., 2016). Moreover, while it was said that farmers benefit from better access to price information, their power to influence the chain is still very low. The main factors limiting their leeway are: cash constraints, inadequate storage and inability to weight and measure grains quality. Cash constraints force some small farmers to sell directly after harvest, at low price (Debela, 2016). Storage is a challenge for farmers, as well as for traders and cooperatives, and important losses occur due to poor storage facilities (Ali, 2018; BIF, 2018; Debela, 2016; Rashid et al., 2015). The inability of farmers to weight and measure the quality of their production is also a big problem as they are unable to assess to value of their production (Ali, 2018). Ali (2018) reported that it is very common for traders to cheat on weight and quality and to propose low price to farmers.
Even if productivity increased these last years, it is still low in comparison with other crops and with other malt barley producing countries in Europe and Africa (Ali, 2018; BIF, 2018; Kifle, 2016; Rashid et al., 2015; Tefera et al, 2016). In this context, the demand for malt barley increases faster than the supply and competition between buyers is strong (Ali, 2018; Debela, 2016). It results in high prices paid for malt barley (Debela, 2016; Rashid et al., 2015). Although a minimum price is set once a year, the stakeholders interviewed highlighted that malting factories and breweries tend to gradually increase it (directly or indirectly through commission and premium) to attract more farmers. While it has a positive impact for producers, it also challenges the whole process. Side selling is common (Debela, 2016). Farmers tend to sell their production to the actor proposing the higher price, even if they benefited from support from another one (Ali, 2018; Debela, 2016). This phenomenon is difficult to avoid in the Ethiopian juridical context as contracts are not easy to enforce (Ali, 2018). In this context, local prices are much higher than international ones (Ali, 2018; Debela, 2016). Local sourcing is therefore costlier for breweries. Breweries interviewed strongly hope that prices will decrease in the future, thanks to better productivity and higher malting capabilities in the country. The efficiency of the chain is also negatively impacted by the low capacity of malting companies (Ali, 2018; Debela, 2016). Breweries still need to import a large part of processed malt barley, which negatively impacts the economy of the country as international currencies are scarce (Ali, 2018; Debela, 2018; Rashid et al., 2015; Tefera et al, 2016; Usman & Zekele, 2017). It was highlighted in different studies that low capabilities of intermediaries in the chain are also causing inefficiency in the value chain process. Primary cooperatives are managed by local farmers and face big challenges such as weak organization, lack of infrastructures and financial resources, political influence (BIF, 2018; Debela, 2016; Kifle, 2016; Tefera et al, 2016). While FSCs and model farmers are alternatives, their legitimacy is questioned as they don’t’ have a recognized legal status.

Finally, environmental risks need to be mentioned. Improved seeds are less adapted to local conditions and more sensible to pest diseases or weeds infections (Tefera et al, 2016). The production needs more chemicals, which can damage the fertility of the soil. Moreover, as few improved seeds are available on
the market, there is a risk of monocropping which can have negative impact in the long-term (Debela, 2016). Debela (2016) also highlighted a food security risk. Because of the potential higher yield and price premium, many producers switched their production towards malt barley and sell it to malting companies or breweries (Ali, 2018; Debela, 2016). Less food is therefore available on the market. However, while this risk should not be ignored, it can be relativized. Indeed, farmers still keep a high volume of malt barley for their own food consumption.

CHAPTER 4 – EMPIRICAL ANALYSIS

The objective of this chapter is to make recommendations on the way BG implication in malt barley chain should evolve in the future. In this regard, the role played by the MFI and its influence on other actors are analyzed. The organization is presented in the first section, with a specific focus on input loans in malt barley sector. The second section analyses BG clients’ profile, integration in the chain, main challenges and benefits from BG input loans. The third section focuses on BG relationships with the different actors and identifies main challenges and risks in malt barley inputs financing. The last section uses all information to presents recommendations.

Section 1 - Buusaa Gonofaa MFI

General presentation

Buusaa Gonofaa Microfinance Shared Company (BG) is a non-bank financial institution created in 1999. In reality, BG activities started in 1995, through the local NGO: HUNDEE-Oromo Grassroots Development. In 1996, Ethiopian regulation changed, and the NGO had to transform into a private MFI. BG has social and financial objectives and is strongly rural oriented (BG MFI, 2015). It is a for profit-MFI governed by socially oriented shareholders. The organization makes profit, but no dividends are distributed (Planet Rating, 2011). Its mission is “to provide flexible and efficient microfinance services on a sustainable basis to improve the livelihood of the resource poor in rural and peri-urban areas, particularly, women, small holder farmers and landless youth” (BG MFI, 2015: p.
BG is the 3rd biggest independent MFI in Ethiopia (Planet Rating, 2011). The MFI provides loans and savings facilities. Its services are delivered through two different channels: conventional branches (CB) and rural services facilities (RSF). BG has 31 CB and 37 RSF. RSF are located in remoted rural areas. They are managed by staff hired from the local community. CB mainly use the group loans methodology while RSF only provides individual loans. Groups’ size varies from 5 to 25 members, depending of the product. BG loan size generally do not exceed 10.000 ETB (Ethiopian Birrs), which corresponds to 345 USD (United States Dollars). A presentation of the different products provided by the MFI can be found in Appendix 3. The specificity of input loans is developed in the following part.

Malt barley inputs financing

Input loans target small farmers who do not have the capacity to finance the inputs for their production. BG started with group inputs financing in 2008 in specific CB, for different crops (wheat, malt barley and maize) (BG MFI, 2018a). The product was extended to RSF, through individual loans, in 2011. The type of inputs financed depend on the region and on the crops. The maximum amount is 5.000 ETB in CB and 10.000 ETB in RSF and loan terms varies from 6 up to 10 months. Loans can be obtained only if voluntary savings have been collected. In malt barley, improved seeds, fertilizers and chemicals are included in the loans. Seeds and chemicals are provided in kind, generally in BG offices. Funding for fertilizer is delivered in cash and farmers can buy them in primary cooperatives. Disbursements of seeds and cash for fertilizers take place in June. Distribution of chemicals is done one month later. Reimbursement is done after harvest. Loans’ characteristics are described in Appendix 4. BG also provides loans, up to 100.000 ETB, to local traders and lead farmers. Loan’s term goes from one week up to 10 days. These loans are not risky for the MFI as it is secured by traders’ stocks. No guarantee is asked. Traders’ loans are not formalized and there is no written procedure yet. In malt barley, it represents among 10 to 12 clients. In comparison with other crops, BG’s malt barley inputs financing is the most value chain integrated process and many public and private actors are involved. It encompasses the delivery of inputs in kind or cash (improved seeds, fertilizers and
chemicals), trainings and market access facilitation. BG staff is supported by a local input committee, created in each CB and RSF.

As it is only provided in specific areas, inputs financing (all crops) does not represent a large part of BG portfolio. According to data provided by the staff, it averages 5% of total amount disbursed in the financial year 2017/2018. However, in absolute value, it encompasses a large number of farmers and money disbursed: 6,020 clients benefited from input loans and 28,146,734 ETB were disbursed during the financial year 2018/2019. Moreover, importance varies from one branch to another. Input loans are for example much more important in RSF (26% of total amount disbursed in 2017/2018) than in CB. Through the years, input loans are also becoming more important for the MFI, with a growth of 130% of the amount disbursed from 2016/2017 to 2017/2018 and a number of clients benefiting from input loans which almost doubled. Malt barley financing represents the biggest part of inputs financing (more than 40% of the total inputs' loans in 2017/2018) and total disbursement per year is also growing. It represents a substantial source of revenues (fees and interest) and capital (savings) for the CB and RSF located in areas where malt barley is cultivated. Beyond the numbers, getting involved in value chain inputs financing is important for BG to meet its objective to support small farmers. As the malt barley market is extending, it is also a good opportunity for the MFI to increase the scope of its activities and grow. It is a way for the MFI to differentiate from its competitors, too. Only a few actors provide full package on loans and facilitate access to market and BG was one of the first MFIs involved in value chain projects. Additionally, as most of the inputs are delivered in kind, it prevents loan diversion.

Section 2 - BG clients in malt barley value chain

BG mainly focuses on small farmers facing difficulties to finance their production activities. One the 21 clients interviewed, 17 are small farmers owning land from 1.5 to 6 ha, for the biggest ones located near the main road. Some of them are able to rent additional land in order to increase their production. 4 clients are young landless farmers. They all benefited from malt barley input loans (or are in

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1 In Ethiopia, financial year starts in July and ends in June of the next year.
the process of getting one). The majority of BG clients interviewed started growing malt barley a long time before benefiting from BG input loans for this crop (from 6 up to 22 years ago). Many clients increased (or plan to increase) the portion of land allocated to malt barley. Allocation to malt barley varies from 1/3 up to 4/5 of the total land owned or rented. As it was explained previously, BG also supports lead farmers assuming trading activities. BG has different arrangements with them. Some traders are included in the integrated value chain project. They are identified as lead-farmers playing traders’ role on the side and they receive BG financial support. They contract with BG as well as with Heineken. Other traders collect and deliver malt-barley production to Heineken, in name of BG, without any specific agreement. Collaboration is built on quantity and price. While some of them benefit from BG financial support, other are covering their costs by themselves. In the past, local RSF employees played a trading role, but BG asked them to stop. With the increasing volume of supplied, it started to take them too much time.

Clients’ interactions in the value chain

Majority of the farmers interviewed asked or benefited from the BG input loans full package, encompassing the provision of Traveler seeds (in kind), fertilizers (in cash) and chemicals (in kind). Before BG input loan, they essentially used Holker seeds (local improved seed developed by the government). Most of them started to used Heineken seeds thanks to the support of the MFI. They switched to Traveler because of the productivity, the high demand on the market and the possibility to get higher prices for production. They clearly highlighted that it is not easy for them to get access to seeds and inputs. Sourcing directly from malting companies or breweries is the best way to ensure quality but, dealing with them is not easy for small farmers as they lack information on the process. Primary cooperatives, model farmers or informal traders are alternative channels to buy seeds, but quality is questioned, adequate quantity not always available and payment needs often to be done in cash. Most of BG clients interviewed sell their production on the market. Only a few farmers mentioned that they keep a part for home usage (food consumption, animal food or seeds). All RSF clients interviewed sell their production to local traders. They choose the one proposing the best
price. Selling is done in traders’ stores on the market or directly at farmers’ place if volume is important. Some traders make door-to-door collection at harvest time to push farmers to sell at lower price. It seems that it is easier for farmers located at Assela, closer to the main street, to sell to processors. Indeed, two of the three farmers interviewed in this branch are able to directly sell to AMF or Heineken. No clients directly mentioned support from BG to sell production after harvest. Some farmers know that specific traders are working with BG, but they will only sell to them if prices are better.

None of farmers interviewed mentioned to benefit from other financial help than BG loan(s). While some clients also received a cash loan from BG to support other costs of production or other activities, the majority counts on their own financial resources. They mentioned that other financial supports are available on the market, but it does not suit their needs. Other MFIs often propose group loans, banks ask too much guarantee, informal channels as traders and money lenders, are too expensive and contracting with primary cooperatives or AMF is too constraining. A few farmers mentioned that they received trainings on how to improve production. However, it seems that only a part of BG clients really benefits from trainings or that clients do not realize that BG is facilitating the process. Indeed, while BG and EUcord staff affirm that regular trainings are provided, only the group of young landless farmers mentioned BG support. The others did not mention BG as an actor providing trainings. They rather highlighted AMF, Heineken and development agent. According to the interviews, advices from these organizations are not always adapted to their situation. For example, they are not equipped to do row-planting while this methodology is strongly encouraged by development agents.

Only one of the two traders interviewed relies on BG loans as financial source. He mentioned that different processors, as Heineken (in the past), Habesha or Soufflet, also provide support. Traders receive seeds (that they then provide to farmers) on loan and financial support to cover their working capital. In exchange, they engage to deliver a minimum quantity of malt barley grains. The first trader works with Heineken, through the intermediary of BG. The second trader does not have any specific agreements with malting factories or breweries. He argues that
partnership is not easy and not always interesting. As prices fluctuate a lot due to competition, it is better to compare offers between different buyers before selling.

Clients’ opportunities and challenges

All the farmers interviewed confirmed the positive impact from the development of the malt barley sector. Even if production costs are higher, they achieve good productivity, get high price on the market and are able to increase their income. They all mentioned that they get at least a productivity twice higher than with local seeds (50 quintals/ha on average). Moreover, even if most of them sell their production through traders’ channel, they are able to get higher price than before. While they get around 700 ETB/quintal with Holker seeds, they are now able to get 1,300 up to 1,800 ETB/quintal, varying according to the time of collection. Higher productivity and prices make this crop very interesting for them. As mentioned before, Debela (2016) showed that gross margin for farmers growing Traveler malt barley seeds averaged 171% in 2016 (total production costs of 18,480 ETB/ha and revenues averaging 50,113 ETB/ha), with an average selling price of 950 ETB/quintal. Interviews conducted in this research showed that prices strongly increased these last year and average 1,500 ETB/quintal. While this research did not allow to make a detailed costs analysis, information gathered showed that total costs evolved slower than malt barley selling price and that margin for farmers exceed 200%. However, it has to be noted that margin varies according to the profile of farmers. Indeed, farmers without land almost double their costs as renting is very expensive in Ethiopia. While still positive, this strongly decreases their margin. Moreover, despite the high margin, many challenges were also mentioned during the interviews. This shows that the market still faces some imperfections and that there is still room for improving value chain coordination.

Raising malt barley using new improved seeds is challenging. All farmers agreed that growing Traveler seeds is not easy to manage. It needs a lot of care as the seeds are less adapted to local conditions and more sensible than the local ones. Farmers have to spray more chemicals (at least 3 times). If chemicals are delivered with delay or low quality, their productivity risks being strongly impacted. Farmers also lack knowledge on how to apply these chemicals. BG staff share
information they get from the chemicals dealer. However, their knowledge is limited as they are not agricultural experts. Some farmers also mentioned that they lack machines to support their production. It is important for them to gain time, achieve better productivity and ensure better grains’ quality. Finally, it was highlighted that they need more financial support to cover other production costs than inputs. Even with the development of the chain, access to market is still a problem for BG clients. As mentioned earlier, most of them are not able to directly deal with malting factories and breweries. They sell their production to traders even if they are sometimes cheating on weight and quality and offer lower prices. They have difficulties to organize to meet the minimum volume asked by malting companies and breweries. Some farmers mentioned that BG has given advices on how to organize in group. But they are still unable to do so. The difficulty is to build up trusting relationships with the persons in charge of organizing the process. Most of the farmers interviewed mentioned that they try not to sell all production at once, in order to benefit from higher price later after harvest (especially in May-June). But many of them have to assume costs and therefore sell a big part directly after harvest. They keep left-over at home. Neither of them mentioned any storage problem. However, storage challenges were mentioned by one of the traders interviewed. There is a big risk of quality decrease or loss if the storage gets infected by pest or other damages. Some farmers explained that the fluctuation of selling prices is difficult to manage. They are never sure when is the best time to sell. One better-off farmer also mentioned that it undermines the relation he had with AMF, in the past. He has difficulties to respect his engagement as other buyers were offering better prices. Additionally, the farmers and traders interviewed underlined that because they don’t have the machine to measure the quality of the grains, they don’t know in advance if they will be able to meet buyers’ quality requirements, nor the price they will get from their production.

Value added from BG services

All farmers interviewed are generally satisfied by BG input loans process and conditions. During the interviews, BG staff also reported a general satisfaction and no specific complaints from clients. It seems that farmers trust BG and are grateful for the support they received. The following table summarizes the main reasons
why clients applied for an input loan with BG rather than choosing another channel. It is classified by order of importance, according to the number of farmers agreeing with the same idea. Percentage of farmers sharing same thoughts is indicated into brackets.

Table 1 - BG key advantages for clients

<table>
<thead>
<tr>
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<th>Financial support:</th>
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<tbody>
<tr>
<td>1</td>
<td>Majority of the clients interviewed (65%) mentioned that the provision of financial resources is the most value-added service provided by BG. Credits facilitate access to inputs. It also reduces the financial constraints faced by farmers. They can invest their cash (if available) in other economic activities as buying sheep or trading grains. The possibility to get access to cash loans and to combine loans for two different crops is also strongly appreciated.</td>
<td></td>
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<tr>
<td>2</td>
<td>Time delivery: Timing is important in malt barley production and many farmers (45%) highlighted that they chose BG for its ability to deliver inputs on time. This is one of BG key advantage, as other actors are often not able to do so.</td>
<td></td>
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<td>3</td>
<td>Quality: Beside the delivery on time, farmers (40%) appreciate that inputs delivered through BG are of good quality, seeds not mixed, and chemicals not expired.</td>
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</tr>
<tr>
<td>4</td>
<td>Quantity: Another key advantage from BG service, according to some clients (35%), is that the MFI is able to provide farmers with inputs’ in the quantity they need. BG does not face any restriction as many other players on the market.</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Full package: A few farmers (20%) value the fact that BG provides a full package while some other actors only provide one or two inputs.</td>
<td></td>
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<tr>
<td>6</td>
<td>Access: For certain clients (20%), this is the general access to inputs which is important. Without BG support, they would not be able to get access to improved seeds or chemicals.</td>
<td></td>
</tr>
</tbody>
</table>

Source: computed by the author based on information collected from interviews with BG clients

Beside the general satisfaction of the clients, some improvements can be done to better meet the needs of the clients. The areas of improvement are summarized in the following table.
Table 2 – Areas of improvements mentioned by BG clients

<p>| | |</p>
<table>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Loan size</strong>: Most of the farmers interviewed (24%) highlighted that loans provided are too small, especially cash loans to cover working capital. This is mainly the case for young landless farmers as the price for renting 1ha of land costs 20.000 ETB (for the whole production season), while BG loans only go up to 10.000 ETB. Loans are too small to support their production and their other income generating activities. The trader interviewed also underlined that he needs bigger financial resources to cover his working capital.</td>
</tr>
<tr>
<td>2</td>
<td><strong>Costs of the loan</strong>: Some farmers (10%) mentioned that costs’ calculation is not transparent enough and or that interests on savings are too small in comparison with what they have to pay on the loan. Others (10%) said that interest rate and costs are too high. However, regarding high margin generated through malt barley production, this complain can be relativized.</td>
</tr>
<tr>
<td>3</td>
<td><strong>Delay</strong>: Even if progress were done, some farmers (10%) also highlighted that delay in delivery of inputs still occurs.</td>
</tr>
<tr>
<td>4</td>
<td><strong>Scope</strong>: A small number of farmers (5%) indicated that BG serves too many clients at the same time, which affects the quality of the service. BG should increase its scope and have more offices.</td>
</tr>
</tbody>
</table>

Source: computed by the author based on information collected from interviews with BG clients

When asked, farmers underlined that they would benefit from additional support from BG, in the following areas:
Table 3 - Additional support needed by BG clients

<table>
<thead>
<tr>
<th>1</th>
<th><strong>Access to market</strong>: Majority of the farmers (76%) mentioned that they need better support to sell to processors and benefit from higher prices. This is especially the case for farmers from RSF which have difficulties to organize themselves to reach minimum volume requirements. They would also benefit from support to weight their production and measure the quality of the grains. It will help them to better negotiate on price and avoid being cheated by traders.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td><strong>Trainings</strong>: Some farmers (25%) also mentioned that they need better trainings on malt barley production and the use of fertilizers and chemicals to achieve higher productivity and quality.</td>
</tr>
<tr>
<td>4</td>
<td><strong>Machines</strong>: Four clients (20%) highlighted that they would like to benefit from facilitating access to combine harvesters and row planting machines as it could also help to increase productivity and quality.</td>
</tr>
<tr>
<td>4</td>
<td><strong>BG product</strong>: While many of them complained about small loans, only 14 % of the farmers interviewed suggested an increase of loan size as recommendation. This was however also highlighted by the trader interviewed.</td>
</tr>
</tbody>
</table>

Source: computed by the author based on information collected from interviews with BG clients

**Section 3 - BG in malt barley value chain**

**BG relationship with value chain actors**

*Inputs provision*

BG has a specific contract agreement with Heineken for the provision of improved seeds. The agreement allows the MFI to access to quality seeds, without any delay or amount restriction. The process strongly improved in comparison with the past situation. For other inputs, BG has no specific agreement. They exchange with primary cooperatives and private agro-dealers through market-based relationships. Primary cooperatives deliver the fertilizers (with or without BG facilitation, depending on the area). Interviews with BG staff showed that collaboration with BG varies strongly from one *kebele* to another. In some areas, primary cooperatives understand that they have common goals with BG but in other places, they see it as a competitor. While BG and primary cooperatives could both benefit from closer partnership, building trust between them is difficult. Moreover, cooperatives are not flexible enough as well as quite unstable due to
For other chemicals, BG benefits from the opening of the sector to new private actors. However, even if it improved these last years, it is still challenging for the MFI to get access to the chemicals on time and with the amount required by the clients. Axial chemical is produced in the country. BG buys it through primary cooperatives or local dealers, depending of the location. Some shortage and delay in the delivery were mentioned. Rex-duo is imported through Makobu Enterprise PLC, it is reserved in advance and BG has also to pay in advance. Even if importing chemicals is challenging, no delay or shortage were reported through this channel. Transportation to BG branches and RSF is however challenging and requires a lot of coordination between different actors.

Producers and traders

BG clients are linked with the MFI through loan contracts. They have to respect the loan application requirements and reimbursement policy. Farmers are not obliged to take the full inputs package (seeds, fertilizers and chemicals). They are also free to apply to cash and/or input loans and to define themselves inputs and amount they need. BG evaluates the demand according to the land size and farmers’ reimbursement capacity. Even if BG has agreement with Heineken to sell back to them, nothing is imposed on the farmers contracting a loan with them. Despite the low contract enforcement in the country, BG is able to make contracts respected. This can be explained by its embeddedness in the local context which was built over the years, through a strong presence on the field and close collaboration with the local community.

The previous section showed that BG plays a key role for its farmers to get access to inputs and increase their productivity. However, BG’s ability to link farmers to the market is questioned. Even with BG integration in value chain and support given to farmers, small producers are still stuck in market-based relationships with traders. Their ability to benefit from higher prices for their production seems to be more linked to the evolution of the market itself than to marketing support provided by BG. In this regard, it seems that lead farmers, who developed trading activities, are better benefiting from BG inclusion in the chain. The MFI indeed eases the transaction by paying directly for the production collected and providing extra loans to cover working capital. A other remark is that, even if BG has close
contacts with buyers, especially Heineken, it does not have the power to influence the way the chain is governed. The MFI is indeed unable to influence on prices nor quality and volume requirements, for example.

*Malting companies*

Last year, BG started to work with the new malting company, Soufflet. This was a pilot project and no specific contract was signed at that time. BG distributed to its clients the improved seeds provided by the company. During production time, Soufflet was supervising the process to make sure farmers were applying the right production methodology. After harvest, Soufflet agents collected the production, from the farmers included in this process. The agreement was on 2,800 quintals. BG was able to collect 5,000 quintals. However, this year, Soufflet did not engage with the MFI and focused only on traders. BG staff is not aware of the reasons explaining the stop in the collaboration. Heineken staff mentioned Soufflet lack of human resources as a potential explanation. According to him, they should restart collaboration in the future, when they will also be included in the value chain project launched by Heineken.

BG is also under discussion with Boortmalt to develop a new collaboration with them. The specificity of the agreement is that the MFI will play a key financial role during the whole process, for farmers benefiting from BG loans, but also for other farmers. Boortmalt's methodology is quite innovative and interesting as it will allows BG to cross-sell its services to non-clients and to step out of its inputs’ distribution role. However, the process is also challenging as it encompasses a close collaboration between BG, primary cooperatives and Boortmalt agents. To this day, the way of working at the operational level is not clear.

*Breweries*

BG is only working with Heineken as a brewery. This is the strongest and most integrated partnership BG has in malt barley value chain. They were involved since the beginning of the CREATE project and it inspired the design of other new partnerships. Based on reservation made in April, Heineken provides Traveler seeds that BG can distribute to its clients. The partnership also offers BG clients
the opportunity to receive additional trainings. In addition, BG and Heineken identify together lead farmers able to play a trading role. As it was explained before, BG finances their trading activities and pays directly for the supply collected. Heineken strongly benefits from BG financing lead farmers and traders. As the MFI manages the payment, past problems of delay of payment, from Heineken to farmers, are avoided. The agreement between Heineken and BG is set in a contract, yearly reviewed. However, BG staff affirm that the relationship is strongly based on mutual trust rather than on the contract signed. The agreement with Heineken is quite flexible. Heineken is not obliged to buy from BG farmers if the quality requirements are not met. BG farmers do not have to sell to Heineken if the prices are not satisfying. Heineken also provides financial support to BG, to help the MFI assuming its facilitating role. However, Heineken would like to slowly decrease financial support given to intermediaries. In collaboration with IFC, they are looking alternative ways to support MFIs. One solution would be to provide a guarantee so that they can get access to a commercial loan to cover their liquidity needs.

All the staff interviewed agreed that the relationship between Heineken and BG is working well and improved a lot these last years. BG is satisfied because they have access to the quantity of seeds needed, delivered on time and at convenient places. The agreement does not offer price reduction for the seeds, however, being in direct contact with Heineken allows BG to ensure that seeds distributed to farmers are of good quality. The good collaboration was confirmed by EUcord and Heineken staff interviewed. According to EUcord, BG is the best performing actor in Heineken’s value chain project. The institution is well organized, and staff dedicated. The MFI is bringing a high part of the total volume of malt barley delivered to Heineken. As interviews with farmers did not reflect this trend, one assumption is that farmers sell their production to a trader/lead farmer without knowing he is supported by BG and selling back to Heineken. Another explanation could also be that the sample of clients interviewed was too small. Interviews with lead farmers are clearly missing and would have allowed to better understand their implication in collection process and delivering to Heineken.
The following figure presents the way BG interacts with other actors in malt barley value chain.

Main challenges and risks for BG

Staff interviewed highlighted some internal problems that make the management of inputs financing (all crops) difficult. The project started with not enough staff’s preparation and support from head office. Due to lack of training and not enough standardization of procedures, it was difficult for operational staff to understand and present the products to clients. It also seems that inputs financing is more challenging in branches where group loans are provided. Farmers have different needs and come from different places. It is therefore less easy to organize them and link them with market actors. Some external challenges, linked to the partners and organization of the whole process, were also highlighted. The staff interviewed...
complained about the need to estimate the seeds’ demand too much in advance. Farmers wait for the rain and come late to confirm the crops they will grow. The fact that inputs prices are only known in June, is also a problem making the promotion of input loans difficult. Farmers only know at the last moment what will be the exact amount of the loan and repayment. Finally, they mentioned shortage and delays in the delivery of chemicals.

Certain risks need also to be considered by BG when providing input loans. As the organization does not own a license, it faces a legal risk when providing inputs to farmers. In some places, government actors are complaining about it. If complains get bigger, it could completely undermine the process. Beyond the license risk, playing the role of agro-dealer is challenging. The responsibility of BG can be engaged in case of inputs’ damages or inadequate advises given by BG staff (non-agricultural experts). Clients could blame BG for low productivity and refuse to pay back their loan. It was also mentioned during interviews with staff that BG dependency on other partners is risky, especially in the agricultural sector which is highly politicized. If BG is not able to meet its engagements because of partners’ inefficiency, it could negatively impact on its reputation. Farmers’ interviews showed indeed that BG’s ability to deliver quality inputs on time is a key reason to choose the MFI as inputs’ provider. Nowadays, clients’ trust the organization but, it is a long-time process and BG cannot take the risk to undermine it. It was indeed highlighted by different actors that trust is key in the process. Finally, human resources risk was mentioned in different discussions. The seasonality of the product is difficult to manage, and pressure is high during disbursement season. The demand for input loans is also increasing and the outreach going a bit out of control. This was not only mentioned by staff, but also by some farmers whom underlined that BG should have more branches to avoid the quality of the service to decrease. Partners highlighted that BG relies too much on a few key persons to manage the input loans process and that more staff should be trained, especially as these key persons have too much work and territory to cover.
Section 4 – Recommendations for BG inputs financing development

Clients and partners’ interviews clearly showed that BG plays a key role in the malt barley value chain. Indeed, it facilitates access to inputs for farmers whom are able to increase their productivity and to benefit from higher prices. It also creates opportunities for lead farmers and traders to diversified and develop their activities. Finally, it allows Heineken to get access to higher volume of malt barley produced locally and to be free of managing payment to farmers. For the MFI itself, participating in the chain allows to reach new clients and to reinforce its position on the market by providing additional services to its clients. As the market is going to continue growing in the future and the demand for financial support is high, consolidating its position in the chain is a good opportunity for the MFI to growth and develop its activities. According to this analysis, BG meets Meyer (2007) requirements for external financing actors to focus on area where other actors are not performing well. BG indeed compensates for the inefficiency of the inputs market. The MFI is also more performant in providing financial support to farmers than internal actors in the chain, as these ones face difficulties to enforce contracts. However, the process still faces some gaps. While most of the small farmers interviewed enjoy higher price thanks to the global evolution of the market, they do not fully take advantage of the value chain development as they still sell their production to traders, sometimes cheating and proposing lower prices than processors. They still lack support to fully participate and increase their bargaining power within the chain. At the level of the MFI, being involved in the chain also raises some questions. Managing input loans and disbursement in kind is challenging as it involves the coordination of many partners and doing activities beyond their core business, with too few qualified human resources. The MFI could act at four different levels to make its implication in value chain arrangement more impactful and sustainable: relation with lead firms, support of intermediaries, integration of small farmers and internal improvements.

Relationship with lead firms

Malt barley market is evolving quickly, and we can expect that lead firms (malting companies and breweries) interventions in the chain will tend to diminish in the
long term. Interviews indeed showed that their aim is that the market works, without their intervention. Heineken already decreased financial support and aims to slowly step out of the coordination of the project. Same trend is expected from Boortmat. While the company is strongly involved on the field for the moment, to build trust with local actors and farmers, it emphasizes capacity building of all actors along the chain in order to ensure their independency in the long-term. As Heineken, they do not want to get involved in any kind of financial support in the future. Given this potential evolution of the market, the pertinence of continuing working with these companies can be questioned. However, in the medium term, as the market is not working well yet and as BG cannot count on intermediaries to correctly serve its clients, it still makes sense for the MFI to collaborate with lead firms as Heineken, Soufflet and Boortmalt. Dealing directly with them continues to be the best way to get access to quality improved seeds, on time and without quantity restriction, as well as to be directly linked to the market. Further develop collaboration with Soufflet and Boortmalt is also a good opportunity for BG to increase the scope of its activity and serve more clients. Additionally, it is a way to diversify partnerships and decrease Heineken dependency risk for the MFI. Moreover, BG can capitalize on its first moving advantage and good experience with Heineken to easily develop these new collaborations.

In this regard, while the MFI already started negotiations with both Soufflet and Boortmalt, partnerships agreements are not yet signed, and some challenges remain. With Soufflet, it is needed to evaluate the previous pilot project, to understand why the collaboration did not continue this year and what the perspectives for the future are. With Boortmalt, a draft contract is ready and BG staff is very enthusiastic about the future collaboration. However, concrete way of working and processes need to be clearly defined to implement innovative Boortmalt approach. Training of BG staff is also needed. Moreover, to make sure collaboration with these new actors will generate value rather than destroying it, BG has to ensure that new partnerships will not reinforce the bad sides of competition. BG needs to find a way to work with all the different actors without one partnership undermining the other. They will indeed face some problems in meeting their engagement if one actor is performing better than the other or proposing a higher price for example. Making sure that the collaboration takes
place in different geographical areas is a way to avoid this kind of problem. The process needs also to be as simple as possible. Based on Heineken experience, two points can be easily improved: adjust the timing for seeds’ reservation to better suits with farmers calendar and define price earlier in the process to simplify the communication with (potential) clients.

While interesting in the medium-term, these kinds of partnerships, especially with Heineken and Soufflet, imply that BG continues to play a strong role in inputs delivering. It represents a risk for the MFI which does not have a license. While it would allow the organization to provide more variety of inputs and to avoid government pressure, getting a license is out of the MFI scope and goes in opposition with BG willingness to focus more on financial services. As getting a license is not recommended, one solution, to improve the process and decrease risk, could be to develop stronger partnerships with chemicals companies. BG could for example negotiate reservation in advance and payment flexibility. Partnership agreement should also include the delivery of the products at BG offices.

Support of intermediaries

As primary cooperatives are unavoidable when working in the agricultural sector and as it is normally their role to facilitate inputs and market access for farmers, it seems logical to reinforce collaboration with them. Primary cooperatives have indeed, in theory, the legitimacy to represent the farmers and to negotiate with national actors (though unions and federations). They are also normally key actors to facilitate inputs’ distribution as well as the marketing of production. As suggested in Boortmalt’s model, BG could focus only on the financial flows in the process. Moreover, BG could finance the cooperatives as it was highlighted that they strongly lack financial resources to cover their working capital. Financial support to develop new services as storage facilities, access to plowing and harvesting machines or to quality measurement instruments could also be envisaged. This kind of arrangement will take time to put in place and be challenging. To make the process working, it is needed to ensure that primary cooperatives are able to provide quality inputs, on time and with the amount
needed by the farmers. However, if the process is working well, it can benefit all the actors involved: the cooperatives which can make benefits from these new activities; the MFI which increases its scope and focuses on its core business; as well as the farmers with centralization of all the process in one point. Moreover, it can benefit the whole agricultural sector as services can be used by farmers involved in other crops. Given these advantages, it could be interesting for BG to make some pilot projects in areas where collaboration is already going well. Boortmalt project is in this regard a good opportunity. These smaller scale projects can then be used to make some lobbying at a more global level to encourage other cooperatives to develop similar collaborations.

As cooperatives are often not effective enough to support the whole process, many of BG staff insisted on the need to build up stronger partnerships with other private actors. The MFI could for example work closer with model farmers. They can be used as a channel to distribute inputs and collect production. As for partnerships with cooperatives, it would allow BG to focus on the provision of financial services as well as to increase its scope by financing model farmers and serving new farmers in their network. In this model, model farmers should be encouraged to get a trading license to avoid any legal issue. The need and willingness of these model farmers to work with an MFI should however be assessed. The relationship between model farmers and BG is not always easy as some of them see the MFI as a competitor. A similar collaboration can be envisaged with Farmers Services Centers (FSCs), as they are especially present in Arsi region. Developing stronger partnerships with model farmers and FSCs is a model that could be tested in collaboration with Heineken and Soufflet. They indeed already have good relationships with them.

The analysis showed that traders still play a key role in the value chain and that they lack financial support. BG should therefore think about the way of working with them. A financial product already exists for traders, but the product needs to be formalized. However, a deeper reflection is needed to define the implication of traders in the future. If partnerships with primary cooperatives, model farmers or FSCs are successful, traders’ role risks being questioned and their importance to decrease. BG could then decide to continue working with them, in area where
cooperatives or model farmers partnerships are not possible or to collect production in underserved remoted areas.

It would be interesting for BG to conduct a market research in order to analyze the feasibility of developing these scenarios. The potential of the market as well as the risk linked to financing bigger intermediaries need to be assessed.

Small producers’ integration

While partnerships developed below seem promising, a specific attention needs to be paid to the way smaller farmers are integrated and benefit from the evolution of the chain. It is crucial to ensure poorer producers are not stuck in lower value transactions. In this regard, the MFI could play a key role in enhancing trust and fair exchanges by providing market information and facilitating access to material for quantity and quality measurement. They could also develop a specific program aiming to enhance capabilities of smaller farmers to organize themselves and deliver directly to breweries or malting factories. More globally, farmers still need extra support to better benefit from value chain development. Better trainings on how to achieve high productivity and quality, while respecting the environment, would be useful. It is key to help them meeting buyers’ requirements. It is also important to avoid damaging the soil and negatively impacting future harvests. Interviews showed that not all farmers receive technical support and that advices are not always accurate. As, trainings are often costly and difficult to scale up, an alternative could be to use the radio. In this regard, the Canadian NGO, Farm Radio International (FRI), has been identified as a potential partner. The NGO provides portable radios to associations working with communities in remoted local areas. BG could own few radios and use them to share farming information with its clients. Programs include inputs, production and market information. Specific programs on malt barley could also be developed in partnership with FRI, as it was done in the beginning of 2019, by the International Finance Cooperation (IFC, World Bank Group), Heineken and EUcord. They worked with the NGO to develop a 16 weeks program aiming to promote malt barley value chain in Amhara and Oromia regions. If budget is available, a second program will potentially be launched in the future. Being included in the project
could also be an opportunity for BG to share information on access to financial services and indirectly promote its activities.

Internal improvements

Finally, BG has to consolidate its activity to ensure its sustainability in the future. According to BG staff, more standardized policy and procedures are needed to clarify way of working in input loans’ provision. During interviews, different information was given, not always consistent which each other, especially regarding reservation of seeds, collection of production and trainings. Beside the definition of a clear process, it was reported that operational staff need more training on the way of working as well as on malt barley production characteristics. In this regard, it was also highlighted that BG would benefit from having more staff with agricultural background. More specifically, inputs financing depends too much on a few persons and it represent an important workload. BG should consider reinforcing the team managing input loans and value chain integration projects.

Finally, a way for BG to benefit more from all investments done in malt barley value chain, could be to develop similar partnerships in other crops. It could help to improve market functioning in other sectors, encourage crops’ diversification and avoid monocropping. It could also be a way for BG to increase its outreach in other areas. Other actors, as Heineken for example, have expressed their willingness to develop similar approach in other sector as wheat, sorghum of maize. As a preferred partner, BG should take the opportunity and be vigilant when the subject will come on the table. In the future, if value chain integration projects are getting more and more popular in Ethiopia, not only in malt barley, but also in other crops, BG could consider hiring a value chain partnership manager. Managing multiple partnerships is indeed challenging and requires full attention, to meet partners deadlines and to keep an eye on potential new opportunities. This person should well understand BG way of working and be able to make the links between different actors involved in the value chain, from more international organizations towards farmers’ organizations. He/she could also be in charge of looking for financial support to allow BG to start new pilot projects.
CONCLUSION

This research confirms that modern value chains and contract farming offers new opportunities for participating actors. In the case of malt barley in Ethiopia, producers, processors and intermediaries benefit from value chain developments. Farmers enjoy higher productivity and margin thanks to an important increase of selling prices. Better-off farmers also get the opportunity to upgrade by developing new trading activities. Buyers leading the chain are able to secure a larger part of their supply thanks to an increase of quality malt barley grains produced in the country. For intermediaries, as MFIs, integration in the chain allows to extend their services and increase their outreach. This study also showed that MFIs, especially when they develop a microfinance plus approach, can play a key role in the process. By providing adequate financial and non-financial support, BG facilitates farmers’ access to quality inputs, delivered on time and without quantity restriction, which is key for farmers to reach higher productivity and quality, and to benefit from higher prices and margin. Additionally, it seems that BG plays a strong role in facilitating transactions for buyers which are able to get in touch with many small producers, often through the intermediaries of lead better-off farmers supported by the MFI. However, the study also confirms that malt barley modern value chain in Ethiopia does not totally solve market misfunctioning. Access to inputs is still a challenge in the country, prices fluctuate too much and participation is difficult for poorer farmers. The process is also complex, involves many actors, sometime doing activities out of their core business. There is therefore still room for improvement. A way to make it better work is to reinforce capabilities of organizations supporting farmers, as primary cooperatives and model farmers. To improve small farmers’ participation, a key focus should also be on facilitating access to information and increasing their bargaining power in the chain. Finally, a deeper analysis of value-added along the chain is needed. It will allow to better identify how value is created and distributed, and who is benefiting the most from value chain developments. Since these projects are supported by NGOs and governmental organizations, it is needed to ensure that most of the value is not going to better-off actors.
REFERENCES


# APPENDICES

## Appendix 1 - Agricultural value chain instruments

<table>
<thead>
<tr>
<th>Table 4.1 Description of agricultural value chain finance instruments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Instrument</strong></td>
</tr>
<tr>
<td>----------------------</td>
</tr>
<tr>
<td><strong>A. Product financing</strong></td>
</tr>
<tr>
<td>1. Trader credit</td>
</tr>
<tr>
<td>2. Input supplier credit</td>
</tr>
<tr>
<td>3. Marketing company credit</td>
</tr>
<tr>
<td>4. Lead firm financing</td>
</tr>
<tr>
<td><strong>B. Receivables financing</strong></td>
</tr>
<tr>
<td>5. Trade receivables finance</td>
</tr>
<tr>
<td>6. Factoring</td>
</tr>
<tr>
<td>7. Forfaiting</td>
</tr>
<tr>
<td><strong>C. Physical asset collateralization</strong></td>
</tr>
<tr>
<td>8. Warehouse receipts</td>
</tr>
<tr>
<td>Instrument</td>
</tr>
<tr>
<td>------------</td>
</tr>
<tr>
<td>9. Repurchase agreements (repos)</td>
</tr>
<tr>
<td>10. Financial lease (lease-purchase)</td>
</tr>
</tbody>
</table>

**D. Risk mitigation products**

11. Insurance | Insurance products are used to reduce risks by pooling regular payments of clients and paying out to those affected by disasters. Payment schedules are set according to statistical data of loss occurrence and mitigate the effects of loss to farmers and others in the value chain from natural disasters and other calamities. |

12. Forward contracts | A forward contract is a sales agreement between two parties to buy/sell an asset at a set price and at a specific point of time in the future, both variables agreed to at the time of sale. Forward contracts allow price hedging of risk and can also be used as collateral for obtaining credit. |

13. Futures | Futures are forward contracts (see definition above) that are standardized to be traded in futures exchanges. Standardization facilitates ready trading through commodity exchanges. Futures provide price hedging, allowing trade companies to offset price risk of forward purchases with counterbalancing of futures sales. |

**E. Financial enhancements**

14. Securitization instruments | Cash-flow producing financial assets are pooled and repackaged into securities that are sold to investors. This provides financing that might not be available to smaller or shorter-term assets and includes instruments such as collateralized debt obligations, while reducing the cost of financing on medium and longer term assets. |

15. Loan guarantees | Agricultural loan guarantees are offered by 3rd parties (private or public) to enhance the attractiveness of finance by reducing lending risks. Guarantees are normally used in conjunction with other financial instruments, and can be offered by private or public sources to support increased lending to the agricultural sector. |

16. Joint venture finance | Joint venture finance is a form of shared owner equity finance between private and/or public partners or shareholders. Joint venture finance creates opportunities for shared ownership, returns and risks, partners often have complementary technical, natural, financial and market access resources. |

Source: Miller and Jones (2010: p56-57)
### Appendix 2 - List of persons interviewed

<table>
<thead>
<tr>
<th>Date</th>
<th>Place</th>
<th>#</th>
<th>Name (Function): Organization</th>
<th>Comments</th>
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</thead>
<tbody>
<tr>
<td>13.06.2019</td>
<td>Addis Ababa</td>
<td>1</td>
<td>Sorsa Deleba (consultant), SOS Faim</td>
<td>BG shareholder</td>
</tr>
<tr>
<td>17.06.2019</td>
<td>Assela (CB)</td>
<td>3</td>
<td>BG clients</td>
<td>Individual interviews</td>
</tr>
<tr>
<td>17.08.2019</td>
<td>Assela (CB)</td>
<td>1</td>
<td>Deraje (customers officer): BG</td>
<td></td>
</tr>
<tr>
<td>18.06.2019</td>
<td>Assela (CB)</td>
<td>1</td>
<td>Gossa (branch manager): BG</td>
<td></td>
</tr>
<tr>
<td>18.06.2019</td>
<td>Sirbo (RSF)</td>
<td>3</td>
<td>BG clients</td>
<td>Individual interviews</td>
</tr>
<tr>
<td>18.06.2019</td>
<td>Sirbo (RSF)</td>
<td>3</td>
<td>BG clients</td>
<td>Focus group, landless youths</td>
</tr>
<tr>
<td>18.06.2019</td>
<td>Sirbo (RSF)</td>
<td>1</td>
<td>Abdourou Kalabato (field agent): BG</td>
<td></td>
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<tr>
<td>18.06.2019</td>
<td>Sirbo (RSF)</td>
<td>1</td>
<td>Abyot (rural coordinator): BG</td>
<td></td>
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<tr>
<td>19.06.2019</td>
<td>Koma Katara (RSF)</td>
<td>1</td>
<td>Galana (cashier): BG</td>
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<tr>
<td>19.06.2019</td>
<td>Koma Katara (RSF)</td>
<td>4</td>
<td>BG clients</td>
<td>Focus group, clients applying for a first loan</td>
</tr>
<tr>
<td>19.06.2019</td>
<td>Koma Katara (RSF)</td>
<td>2</td>
<td>BG clients</td>
<td>Individual interviews</td>
</tr>
<tr>
<td>19.06.2019</td>
<td>Lemu Kara</td>
<td>6</td>
<td>BG clients</td>
<td>Focus group</td>
</tr>
<tr>
<td>19.06.2019</td>
<td>Lemu Kara</td>
<td>2</td>
<td>Dagen (field agent), Sissay (field agent): BG</td>
<td></td>
</tr>
<tr>
<td>19.06.2019</td>
<td>Meraro</td>
<td>1</td>
<td>Adune Teshome: Trader</td>
<td></td>
</tr>
<tr>
<td>19.06.2019</td>
<td>Meraro</td>
<td>1</td>
<td>Brahanu Zwude: Trader</td>
<td>Also BG client</td>
</tr>
<tr>
<td>20.06.2019</td>
<td>Asassa</td>
<td>1</td>
<td>Abdourama (union coordinator): Gadaba Union</td>
<td></td>
</tr>
<tr>
<td>20.06.2019</td>
<td>Asassa</td>
<td>1</td>
<td>Galgalu (RSF coordinator): BG</td>
<td></td>
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<tr>
<td>20.06.2019</td>
<td>Assela</td>
<td>1</td>
<td>Etafa (branch manager): OSE</td>
<td></td>
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<tr>
<td>01.07.2019</td>
<td>Addis Ababa</td>
<td>1</td>
<td>Leslie Goussault (project manager): Boortmalt</td>
<td></td>
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<tr>
<td>02.07.2019</td>
<td>Addis Ababa</td>
<td>2</td>
<td>Aschelew Admassu (operation team lead), Lemmi Legesse (program coordinator): EUcord</td>
<td></td>
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<tr>
<td>09.07.2019</td>
<td>Addis Ababa</td>
<td>1</td>
<td>Tarakegn Garomsa (project coordinator): Heineken</td>
<td></td>
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<tr>
<td>19.07.2019</td>
<td>Addis Ababa</td>
<td>2</td>
<td>Samson Eshetu (country representative), Zelalem Nega (program manager): NGO FRI</td>
<td></td>
</tr>
<tr>
<td>02.08.2019</td>
<td>Addis Ababa</td>
<td>1</td>
<td>Rebeka Amka Woldegiogies (consultant): IFC</td>
<td></td>
</tr>
<tr>
<td>Addis Ababa</td>
<td></td>
<td>4</td>
<td>Teshome Dayesso (general manager), Mohamed Feyo (operations manager), Kassahun Gonfa (marketing head), Bula Kenea (RSF section head): BG</td>
<td>Various discussions</td>
</tr>
</tbody>
</table>
Appendix 3 - BG products

<table>
<thead>
<tr>
<th>Products</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homaa-homaa regular group loans target urban women which have a small business and the ability to pay regular instalments.</td>
<td>Also in RSF, through individual loans.</td>
</tr>
<tr>
<td>Homaa-homaa term group loans are designed for rural farmers. They pay regularly the interests as well as monthly compulsory savings. They reimburse the capital after harvest.</td>
<td>Only in CB.</td>
</tr>
<tr>
<td>Employees loan are individual consumer loans provided to civil servants. Instalment is paid through bank transaction, each month when clients receive their salary.</td>
<td>Only in CB.</td>
</tr>
<tr>
<td>Abdi-Boru Irrigation loans are individual loans provided in two branches (Meki and Ziway) to support the production of vegetables and crops growing in well irrigated lands. BG finances in cash the inputs (seeds, fertilizers and chemicals) and working capital (water costs, labour costs, etc.).</td>
<td>Only in CB.</td>
</tr>
<tr>
<td>Rain fed input loans are group loans to finance the inputs (seeds, fertilizers and chemicals) for malt barley, wheat and maize crops. Input loans are delivered in kind and repaid after harvest.</td>
<td>Also in RSF, through individual loans.</td>
</tr>
<tr>
<td>BG provides solar loans, but the product is on hold due to suppliers’ difficulties to import necessary equipment. They recently started with SMEs loans. The project is actually in development.</td>
<td>Only in CB.</td>
</tr>
<tr>
<td>Up-front savings are compulsory to access a loan. Monthly savings linked to loan reimbursement are also imposed. Clients can save voluntarily, too.</td>
<td>In RSF, a minimum amount of savings is needed to access a loan, but the amount can be increased voluntary.</td>
</tr>
</tbody>
</table>

Source: computed by the author based on information collected from interviews with BG staff

Appendix 4 - BG input loans features

<table>
<thead>
<tr>
<th>Features</th>
<th>Branches</th>
<th>RSF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product purpose</td>
<td>To improve poor farmer’s livelihood through financing their farm inputs that specifically includes, seeds, fertilizers and chemicals.</td>
<td>Individual loans – personal guarantor and wife’s signature</td>
</tr>
<tr>
<td>Methodology</td>
<td>Group lending (joint liability) - 8-12 members</td>
<td></td>
</tr>
<tr>
<td>Loan size</td>
<td>From 1.600 to 5.000 ETB, depending on land size</td>
<td>From 2.000 to 10.000 ETB, bigger loan if more savings</td>
</tr>
<tr>
<td>Interest rate</td>
<td>Flat interest rate - 24% per year</td>
<td></td>
</tr>
<tr>
<td>Loan term</td>
<td>6-10 months, according to the crop</td>
<td>Interest and principal paid after harvest</td>
</tr>
<tr>
<td>Repayment modality</td>
<td>Monthly payment of compulsory savings. Interests and principal paid after harvest</td>
<td></td>
</tr>
<tr>
<td>Service Charge</td>
<td>2% of the loan</td>
<td></td>
</tr>
<tr>
<td>Passbook fee</td>
<td>5 ETB</td>
<td></td>
</tr>
<tr>
<td>Up-front and monthly compulsory savings</td>
<td>Upfront Savings: 15% of the loan size Monthly Compulsory savings: per 0.5 ha clients require to save 20 birr per month. Withdrawal of this deposit will be made after all group members fully repaid their loan.</td>
<td>Minimum upfront Saving: 10% of the loan size. No monthly compulsory savings.</td>
</tr>
</tbody>
</table>

Source: BG MFI, 2018a; BG MFI, 2018b