



**Contract Farming Schemes in Rice  
and Sugar in Tanzania:  
The Implications for Exchange Relations, Power Distribution and  
Differentiation**

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# **Contract Farming Schemes in Rice and Sugar in Tanzania**

## **The Implications for Exchange Relations, Power Distribution and Differentiation**

**Contractlandbouw in rijst en suiker in Tanzania**  
**De implicaties voor uitwisselingsrelaties, machtsverhoudingen en differentiatie**  
(met een samenvatting in het Nederlands)

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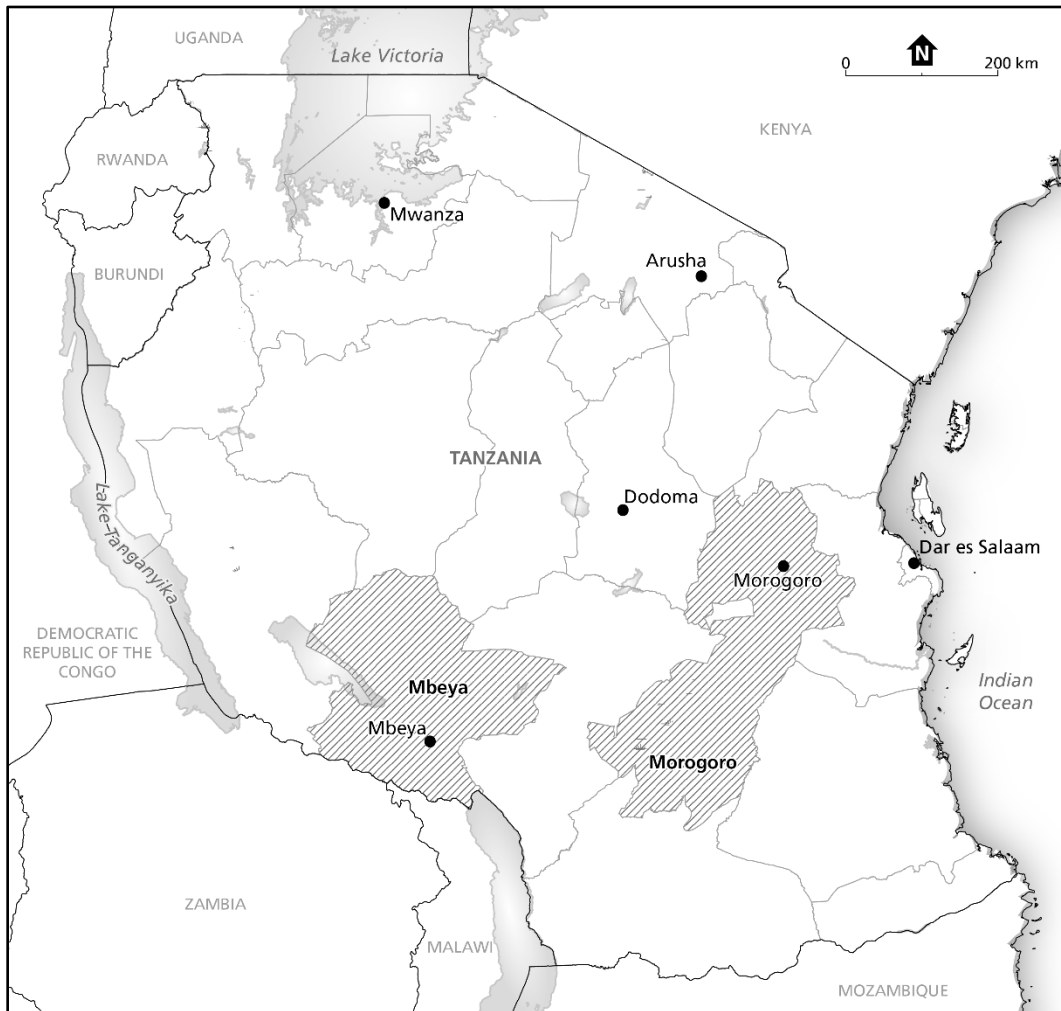
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## The United Republic of Tanzania



Map courtesy of Universiteit Utrecht, Faculty of Geosciences | Dept. Communication & Marketing - Cartographic design



## List of Abbreviations

AGRA	Alliance for a Green Revolution in Africa
AfDB	Africa Development Bank
ACT	Agricultural Council of Tanzania
ASDP	Agricultural Sector Development Programme
BRN	Big Results Now!
CAADP	Comprehensive Africa Agriculture Development Programme
CF	Contract Farming
IFAD	International Fund for Agricultural Development
IMF	International Monetary Fund
KSCL	Kilombero Sugar Company Limited.
MKRS	Mtenda Kyela Rice Supply Company Limited.
MOA	Mtibwa Outgrowers Association
NIE	New Institutional Economics
NGO	Non-government Organization
PE	Political Economy
RCT	Rice Council of Tanzania
RCGA	Ruhembe Cane Growers' Association
SAGCOT	Southern Agricultural Growth Corridor of Tanzania
SAP	Structural Adjustment Programmes
SBT	Sugar Board of Tanzania
SLO	Social License to Operate
TNC	Transnational Corporations
TUCO	Turiani Cane Outgrowers
URT	United Republic of Tanzania
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
WPR	What's the Problem Represented to Be
WB	World Bank

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# Chapter 1: Introduction to the Dissertation

## 1.1 Agriculture and Development

Agriculture is crucial to understanding developing countries and their structural transformation, particularly as large portions of the population in developing countries are still heavily engaged in and dependent on agriculture. This is most evident in Sub-Saharan Africa where the rural population makes up 60% of the total population (2018 estimates, World Bank, 2018) and the agricultural sector employs around 54% of the general population in Sub-Saharan Africa (2019 estimates World Bank, 2019). Agriculture took a back seat to manufacturing and industry in the post- World War II era of increased attention on economic development strategies (Cypher and Dietz, 2009). Industrialization policies were favored, including Import Substitution Industrialization (ISI), as a way to promote overall transformation for developing countries (Cypher and Dietz, 2009; Badiane and Makombe, 2015). Arthur Lewis' classical theories suggest that as a country develops its industrial sector the relative share of agricultural in GDP and employment must decrease, as must the relative share of the labor force engaged in agricultural activities (Cypher and Dietz, 2009). However, in the 1960s and 1970s this thinking began to shift and agricultural-led growth was seen to have value, particularly due to Johnston and Mellor's work (1961; see also Badiane and Makombe, 2015, p.5), as they were able to show that growth in the agricultural sector can lead to raised incomes, foreign exchange earnings and capital and labor that goes into the industrial sector. Furthermore, the understanding became that making the agricultural sectors more productive would lead to broader stimulation of economic growth and more linkages in and between industries (ibid.). The Green Revolution in agriculture, particularly in Asia, proved a good example of how increasing productivity through access to technology for and inputs/factor endowments to, in particular, smallholders, could lead to sector-wide growth and poverty reduction (Badiane and Makombe, 2015; Cypher and Dietz; Timmer, 2009). While agriculture had now become a focus, it was still mainly seen as a sector that should primarily be addressed by governments (Badiane and Makombe, 2015).

However, the 1980s and 1990s brought about structural adjustment policies (SAP) spearheaded by international financial organizations like the World Bank and IMF (Badiane and Makombe, 2015; Ponte, 2002) that dramatically cut down on public spending. The aim of the SAPs was to transform and liberalize the economy and markets from the 'state', with a particular focus on agricultural market reforms in Sub-Saharan Africa post 1984 (Kherallah et al., 2002). Through market liberalization, the private sector would be able to deal more efficiently with the perceived failures in these markets. For agriculture in developing countries, this meant a push away from government subsidies in agricultural inputs, among other things, as well as a push towards increased privatization, including that of parastatals and the removal of marketing boards that had regulated prices (Ponte, 2002; Kherallah et al., 2002). However, the results were mixed and while there were some cases of success in terms of certain cash crops receiving boosts due to the reforms, in for example Uganda, Benin, and Mozambique (Kherallah et al., 2002, p156), it also led to problems such as decreased fertilizer use, lower prices for farmers, and lower food security for smallholders (Kherallah et al., 2002; Badiane and Makombe, 2015).

Thus, this led to a renewed push to try and bring more balance to the agricultural sector by recognizing a limited role of the state and governments, while still pushing for increasing the role of the private sector. The Comprehensive Africa Agriculture Development Programme (CAADP) has been one more recent effort to try and find a more balanced way forward (Badiane and Makombe, 2015; Poulton et al, 2008). Additionally, the Alliance for a Green Revolution in Africa (AGRA) was established in 2006 in response to the then UN Secretary-General Kofi Annan's call for an African Green Revolution while addressing world hunger issues (UN, 2004). AGRA in its current 2017 – 2021 vision, aims to "catalyze and sustain an Inclusive Agricultural Transformation in Africa to increase incomes and improve food security" (AGRA, 2017, p18).

Furthermore, globally there has been a renewed focus on agricultural development in the last decade, partially due to the food crisis of the mid 2000s (Nooteboom and Bakker, 2014; Headey, 2013). For example, this was the main focus of the 2008 World Bank Report



Agriculture for Development arguing that productivity in smallholder farming is a necessity for economic growth in countries heavily dependent on agriculture.

Based on the above, one argument is that structural transformation must continue to focus on agriculture by focusing on increasing private investments and Foreign Direct Investments (FDI) but also by increasing investments of the government in improving the conditions of the agricultural sector, including structural assets such as roads, infrastructure, storage, inputs etc. (Badiane and Makombe, 2015; Cypher and Dietz, 2009). It is argued that agricultural “transformation” is brought about by productivity increases within agriculture, whereby smallholders who can access productivity-increasing assets can make gains (Hillbom and Svensson, 2013; Timmer, 2009; Cypher and Dietz, 2009; Badiane and Makombe, 2015). Badiane and Makombe (2015, p. 15) furthermore proposed that the Green Revolution is a good example that shows how important smallholders can be for increasing productivity in agriculture, provided that they are given opportunities to access inputs, credit, marketing, and technology, underscoring the argument that investment in this area of agriculture is essential for overall economic growth in developing countries.

Increasing concerns about food security are also motivations behind pushing agricultural development. Specifically, the food crisis of 2007-2008 led to an increased awareness of food security in Sub-Saharan Africa (Headey, 2013). Among the other motivations for bettering smallholder agriculture, food security remains one that can be important at the household level as well as the state and international levels (Headey, 2013). However, most recently the concern is the ongoing effects of climate change, which is at the center of global debates regarding agriculture, as well as the development and use of natural resources. Deforestation, migration, and food insecurity can all be affected by climate change. Climate change impacts agricultural production through decreasing yields directly or through changes to other aspects vital to crop growth, such as water, pests, and diseases (Mbow et al., 2019, p. 450). At the same time, the increasing focus on alternative fuels, hereafter referred to as *biofuels*, changing diets, and developing governance tools around climate change adaptation and disaster risk reduction

emphasize the urgency of keeping agricultural development in the developing world as a central focus of international agendas and developing country governments (World Bank, 2007; Del Castillo et al., 2019; Christoplos et al., 2014). Understanding how smallholder development can improve also has consequences for how smallholders, and contract farmers, react and adapt to climate change.

In summary, recent efforts to encourage agricultural development in Sub-Saharan Africa have involved a simultaneous promotion of private sector growth and state intervention that in part centers on creating opportunities for smallholders to increase their productivity, reduce poverty, and adapt to global systematic changes.

### 1.1.1 Tanzanian Case

Tanzania is one such country that has faced many of the challenges to the agricultural sector and economic growth that are presented above. In Tanzania there has long been a focus on improving the agricultural sector even prior to independence in 1964. Following independence, the *Ujamaa* or villagization resettlement program was initiated in Tanzania designed to encourage development of the rural areas including agricultural development (Bjerk, 2010; Ponte, 2002). While *Ujamaa* was later abandoned due to lack of success (Bjerk, 2010; Ponte, 2002), there continues to be a focus on the development of the agricultural sector, which currently accounts for about 29% of the country's total GDP (World Bank, 2017). The agriculture sector is in need of improvement as a vast majority of the rural population still relies on agriculture as their primary source of income: agricultural activities account for 65% of rural incomes, and food insecurity is a common problem (URT, 2006; World Bank, 2018). Tanzania has promoted its fertile climate and arable land as offering plenty of opportunities for growth and production (SAGOT, 2010), aimed at increasing exports and raising the country's overall GDP while simultaneously reducing poverty among the rural population (URT, 2015). Due to this, the government, donors, NGOs, and international organizations have focused on policies and strategies which aim to revive and spur growth in the sector, with the hope that this will spill over as broader growth (SAGCOT, 2011; URT, 2015; Nkonya and Barreiro-Hurle, 2012). The strategies are vast and varied and aim to tackle a myriad of problems faced by the agricultural

sector in Tanzania. However, they also share some of the same goals as broader, African-focused initiatives, such as the CAADP's attempts to encourage private sector growth while simultaneously investing in agriculture to provide smallholders with better opportunities. The problems judged to be preventing growth are lack of credits, inputs, knowledge, access to markets, food insecurity, land tenure security, and climate change (URT, 2009; URT, 2015; URT, 2017).

### 1.1.2. Rice and Sugar Sectors

Both cash and food crops are important to the Tanzanian agricultural sector, among which rice and sugar are both quite valuable. In addition to being a main source of livelihood for thousands of smallholders, both sectors are said to have enormous potential for not only meeting national demand but even reaching export markets (Nkonya and Barreiro-Hurle, 2012; Therkildsen, 2011), but at the same time they both face a number of structural problems. Both sectors have been hit by large-scale importation of rice and sugar by trade groups linked to the ruling CCM elite causing local production to be undermined as domestically produced products have not been able to compete (Therkildsen, 2011; Sulle, 2017b). At the same time Tanzanian policies aimed at developing these sectors to meet national needs and eventually take on export markets have been promoted (SAGCOT, 2011; URT, 2016). Both sectors are characterized by a few major large-scale investments that incorporate outgrower schemes, milling and processing, making case studies of the major mills relevant as lessons on the sectors as a whole. For the above reasons, the rice and sugar sectors were chosen as a focus for this dissertation.<sup>1</sup> By selecting these two cases, the dissertation covers one major food crop (rice) and one cash crop (sugar), in sectors that have great potential but still face obstacles within the Tanzanian context; that are a focal point for policy and investment, and finally; where contract farming is widely practiced.

## 1.2 Contract Farming: A Way Forward?

One of the specific strategies used to try and tackle structural failures in the agricultural sector as well as spur private investment and economic growth and involve smallholders, is the agri-

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<sup>1</sup> Further explanation of case selection is found in Chapter 4.

business model of contract farming. Contract farming is defined by Minot (2009), simply, as, “agricultural production carried out according to a prior agreement in which the farmer commits to producing a given product in a given manner and the buyer commits to purchasing it” (Minot 2009, p. 37). Contract farming has been a popular agricultural intervention in development debates for decades, particularly in developing countries like Tanzania that still rely heavily on agriculture as a main source of livelihood for the majority of the population (URT, 2012; URT, 2006; World Bank, 2018). Arguably contract farming has received much of its attention due to its ability to fit the bill in current agricultural development agendas. Contract farming involves a formal agreement between farmers or farmers’ organizations and buyers/processors, where agricultural product is sold in exchange for a certain price and possible other contractual elements such as inputs, credits, access to land, etc., resulting in exchanges of product for money and sometimes inputs, credits etc. Contract farming has been argued, in particular by (see Dorward et al., 1998; Grosh, 1994), to be an efficient solution for increasing private sector involvement and solving market failures created by the decreasing role of the state after market liberalization during the 1990s (Little and Watts, 1994; Oya, 2012; Kirsten and Sartorius, 2002; Reardon and Barrett, 2000; Grosh, 1994). Contract farming is argued to increase possibilities for farmers to get involved in commercial agriculture and gain access to markets, inputs and technical knowledge (Mishra et al., 2018; Nakano et al., 2014; Kirsten and Sartorius, 2002; Masakure and Henson, 2005). Advocates of contract farming say it is an excellent way for farmers to increase their productivity and welfare, and many studies have shown positive change for farmers, as well as investors (Grosh, 1994; Minot, 2009; Kirsten and Sartorius, 2002; Masakure and Henson, 2005; Eaton and Shepard, 2001). It can also be a way for investors to indirectly access land by keeping ownership with smallholders, which is a type of sub-response to the pressures of the land grabbing debate (Oya, 2012; Cotula et al., 2009; World Bank, 2010; Buur et al., 2017).

Much of the empirical literature on contract farming has focused on seeing if there are welfare or income gains from participating in contract farming. A number of these studies have found that participants in contract farming schemes benefit from participation in the schemes,

through income increases, input increases, capital access improvements, and organizational improvements (Miyata et al., 2009; Warning and Key, 2002; Barrett et al., 2012; Bolwig et al., 2009; Herrmann and Grote, 2015; Singh, 2002; Scoones et al., 2017; Wang et al., 2014). However, other studies see these gains as insignificant, problematic, or in some cases, non-existent (Cahyadi and Waibel, 2016; Wendimu, 2016; Olomola, 2010).

Contract farming does in many cases benefit farmers and investors by addressing market and state failures, and this has the potential to impact the entire agricultural sector. However, there are still areas that are not fully understood. Thus, studying contract farming is valuable in understanding agricultural sector development.

### 1.2.1. Bargaining Power, Relations, and Differentiation

While contract farming has been studied extensively, there are still gaps in certain of theoretical and analytical concepts in contract farming. Exploring these gaps expands the scholarly work on contract farming. This dissertation speaks to two specific research gaps.

One research gap that this dissertation aims to address is that of the relationships created and sustained through contract farming. The central relationship is that between the contract farmer and the company or investor they engage with, but other relations in the local community are also of importance. Specifically, Little (1994), in one of the earliest significant works on contract farming (Little and Watts, 1994), argues that there is a need to focus on contract farming because, “the diversity of contract farming is so great that it is better to focus on the motives and power relationships of contracting parties than on the generic institution” (1994, p. 218). However, as mentioned earlier, the existing research and scholarly work has largely focused on income and welfare and contract farming’s ability to address market failures, and less on uncovering and exploring relations and power. Nonetheless, some recent work (see Scoones, 2017; Sachikonye, 2016) has begun to re-engage with Little’s point from 25 years ago, in that relations and, inherently, power matter because it is otherwise difficult to discuss contract farming given the heterogeneity of the cases and contexts. The existing literature has done little to address how relationships that are a part of contract farming schemes can be conceptualized and characterized, and to describe how relations in contract farming relate to

concepts of power. Explicitly making this link allows for further explorations of power, relations and processes of differentiation; and specifically, as I will argue, relations in contract farming can be more fully understood by focusing on power relations. The main power lens or conceptualization the literature has used has been the 'bargaining power' between the agro-processors or buyers and the contract farmers, which is used in contract farming to discuss the relative strength and weaknesses that actors bring with them into a contract negotiation and which can affect the outcome of the contract (Sivramkrishna and Jyotishi, 2008; Glover, 1990; Barrett et al., 2012; Bijman, 2008).

Bargaining power is a useful concept when discussing influences that can affect the outcome of a contract,<sup>2</sup> but I argue that there are two aspects of power that are not adequately covered by the bargaining power approach alone that should be addressed.

First, bargaining power only focuses on the relationship between contract farmers and investors, and it leaves out the relationship between the investors and the local population as a whole, specifically those who are not included in the contract. Inclusion in the contract farming scheme is a pre-requisite for having the most opportunity to benefit, and while the literature recognizes some reasons why inclusion and exclusion happen (Key and Runsten, 1999; Warning and Key, 2002; Barrett et al., 2012), the excluded groups of the local population are often underexplored. Secondly, bargaining power as a concept focuses on the strengths and weaknesses of each partner, mostly based on their economic ability, but it does not speak explicitly about other forms of influence that can help determine one stakeholder's strength over another, nor does it address dynamism and how power changes over time. Thus, I propose building upon power conceptualization in contract farming by applying the concept of *holding power* (Khan, 2010) i.e. how power is distributed among actors, in order to assess the additional aspects of power that influence contract farming schemes such as their organizational power and ability to survive in conflict.

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<sup>2</sup> See Chapter 2 Section 2.5 for a full explanation.

Examining the relationships within contract farming also allows for discussion of the presence and processes of differentiation. Differentiation is understood here to mean separation between different groups in the same area, geographic or otherwise connected, where for example: 1) farmers participating in contract farming are already differentiated from other members of the community prior to entering the contract; or 2) one group of the population gains from participation in contract farming schemes while other groups remain stagnant or even lose access to resources and livelihoods; and/or 3) the groups of contract farmers do not gain from contract farming, leading to loss of resources and livelihoods. In the literature, concerns have been raised about the processes of differentiation in contract farming schemes, particularly within the local population. The critique of contract farming schemes causing differentiation is largely pushed by the different political economy approaches to contract farming, first put forward by scholars in the 1980s and 1990s (Glover and Kusterer, 1990, Korovkin, 1992; Clapp, 1988; Little and Watts, 1994). The critique of differentiation focuses on those who participate and those who do not, as well as on differentiation between different groups of contract farmers with different types of access and resources. While it can be expected that some gain and others will gain less or nothing at all, or even lose resources, the literature on differentiation in contract farming calls for greater understanding (Sulle, 2017b; Scoones et al., 2017; Sachikonye, 2016). These processes of differentiation are reasoned to be possible due to initial differences in the socio-economic status of farmers, as well as being exacerbated by the actual contract farming schemes themselves (Little and Watts, 1994; Bijman, 2008). More empirical evidence and theoretical conceptualizations of differentiation in contract farming are needed to truly understand the extent and seriousness of it. In other words, understanding more about processes of differentiation will also help us understand how contract farming schemes work in practice. In this study, the application of my proposed relational and power frameworks to the empirical evidence from Tanzania contributes to the discussion on differentiation in contract farming.

Contract farming is an intervention and system of production and supply that will not be disappearing anytime soon, since it both offers solutions to the current focus of agricultural

policy – private sector growth with smallholder involvement to encourage inclusive growth – and is backed by empirical work that shows it often does benefit those who are involved. The focus on income and welfare in the literature has often taken precedence over differentiation, power, and relations, although there has been a shift towards understanding differentiation in recent literature. Thus, it is imperative to gather more empirical and theoretical knowledge about contract farming in order to better understand what is taking place within these communities and thus understand contract farming’s potential for broader impacts on agricultural and structural transformation.

### 1.3 Aim of the Study

The aim of this dissertation is to contribute to the understanding of large-scale agricultural contract farming schemes in the rice and sugar sectors in Tanzania in terms of relationships and power among the pertinent actors. The purpose is both to descriptively uncover what outcomes and exchanges are taking place in specific contract farming schemes and understand **why and how** these have come about. This is done through characterizing the relationships in contract farming and understanding processes of differentiation relevant to the contract farming schemes by investigating relations and power dynamics.

### Research Questions

Thus, the guiding research question for this dissertation is:

*What characterizes the relationship between different actors in agricultural investments where contract farming is prevalent and how do the relationships that evolve relate to power and differentiation (among local farmers) with a special focus on the rice and sugar sectors in Tanzania*

The first part of the question focuses on *what* characterizes relations in contract farming schemes in rice and sugar in Tanzania through examining the concrete exchanges and outcomes that emerge in the specific cases. The second part of the question explores the *how* and *why* the relationships that evolve relate to the distribution of power and differentiation, in part using a theoretical application of power as a lens for understanding.



Chapter 5 explores the context of the empirical work, the rice and sugar sectors in Tanzania, and the four case studies in this dissertation. Chapters 6 and 7 explore the rice and sugar sectors, respectively, specifically focusing on the contract farmers and relationships to the investors in the cases, whereas Chapter 8 focuses on the local population's members who are not involved in the contract farming schemes and the relationships they have with the contract farmers and investors. Chapters 6 and 7 ask the same question but address the rice and sugar cases, respectively. The overall research question is operationalized by being divided into four working questions:

1. How are the rice and sugar sectors important for Tanzania's agricultural development, and what describes the relevant contract farming schemes in these sectors?
2. What is exchanged in rice contract farming schemes in Tanzania, and how do these exchanges influence the outcomes of these contract farming schemes?
3. What is exchanged in sugar contract farming schemes in Tanzania, and how do these exchanges influence the outcomes of these contract farming schemes?
4. What characterizes the relationships between the excluded local populations and contract farmers, as well as the relationships between excluded local populations and investors, in terms of processes of exchanges, access, differentiation, and power?

The working questions structure subsequent chapters. Chapter 5 answers the question about the rice and sugar sectors in Tanzania and presents the empirical cases. Chapters 6 and 7 explore the rice and sugar sectors, respectively, with a specific focus on the contract farmers and their relationships to the cases' investors. Chapter 8 focuses on the local population's members who are not in the contract farming schemes and the relationships they have with the contract farmers and investors.

The first working question is answered by discussing the agricultural development of Tanzania (specifically, the rice and sugar sectors) as well as the cases in which the empirical work was done. The second and third working questions are answered by examining the contract farming schemes in each sector's two cases and using the relational framework proposed in this study to observe and elaborate on the outcomes and exchanges resulting from contract farming.

Exchanges encompasses transfers between parties such as crops, seeds, fertilizers, extensions services, etc. These chapters focus on the contract farmer-investor relationship. After the exchanges and outcomes are identified, the relationships between the contract farmers and the rice investors are characterized. Finally, the issue of power is addressed by examining how holding power is or might be manifested in both sector's cases.

The working question 4 for Chapter 8 focuses on the excluded local population and the pertinent relationships to the contract farming scheme. By looking at exchange, access and differentiation, the relationships are characterized using the analytical framework used for this study. The excluded local population group includes those who both choose not to participate in contract farming as well as those who are not able to due to certain barriers to entry into contract farming. The chapter then focuses on how holding power is present in the different cases in the tensions between the excluded local population and the actors involved in the contract farming schemes.

#### *Methodology of the Study*

To operationalize the working questions, fieldwork was designed and conducted in Tanzania, providing the empirical basis for this dissertation. The data collection extended over three phases of fieldwork, using a combination of interviews, focus groups, investment surveys, and household surveys. Two cases in the rice sector, Mtenda Kyela Rice Supply Company Ltd. and Kapunga Rice Plantation Ltd., and two cases in the sugar sector, Kilombero Sugar Company Ltd. and Mtibwa Sugar Estates, were selected. The bulk of the data collected was in the form of household surveys across the four cases. Through the use of descriptive statistics and thematic analysis, the data was analyzed to answer the working questions.

### 1.4 Conceptual and Theoretical Framing

There are conceptual and theoretical gaps in contract farming regarding the understanding of bargaining power and relations. I propose addressing these gaps by conceptualizing relations and power. This will strengthen the theoretical usage of power in contract farming literature, as well as provide conceptual tools for discussing relations. The theoretical conceptualizations in this study will contribute to how relations and power can be discussed in contract farming,

which will add value to the overall understanding of how contract farming functions in practice, which further contributes to understanding its role in processes of agricultural development.

Regarding relations, this study presents a conceptual framework inspired by a relational framework proposed by Buur et al. (2017, 2019), which enables many aspects of contract farming schemes to be visualized and understood. The framework not only focuses on the relationship between companies and contract farmers, but also on separating the included and excluded members of the local population and exploring the relationship between these two population segments, as well as between the excluded members and the investor. The framework also allows for a discussion of the organization of contract farmers and how this may influence relations to the investor. Through identifying exchanges and outcomes, the framework allows for the characterization of the relationships in contract farming, namely *symmetrical reciprocity*, *asymmetrical reciprocity*, and *indirect transfers*. Characterizing the relationships reveals what drives contract farming schemes and the overall impact of these investments; as well as allowing us to understand how differentiation occurs.

In terms of power, I expand the conceptualization of power in contract farming beyond the bargaining power concept. I will do this by applying Khan's concept of *holding power* (Khan, 2010) to contract farming analysis. Holding power goes beyond bargaining power in its ability to look beyond the "negotiation table" for demonstrations of power. It speaks to the issues of time and space when exploring power in contract farming. Specifically, holding power opens up discussions of how power can change over time, and it speaks to how power can be manifested beyond contract farmer-investor relationships. Holding power is useful as a concept as it is not limited to the relationship between contract farmers and investors, and thus it can describe other outcomes of contract farming schemes that include the excluded local population. Thus, it has the potential to illustrate power dynamics across the entire affected local population.

## 1.5 Contribution

This dissertation contributes to the literature on contract farming in two unique ways that have not been done before. The dissertation proposes theoretical conceptualizations that expand

and expound upon what has been written on contract farming regarding power and relationships. In proposing these theoretical conceptualizations, it not only adds to how contract farming can be explored, but it adds to the literature on contract farming that focuses more on the political economy impacts of contract farming. In particular in this dissertation I try to step outside of the normative debates on contract farming. A persistent debate in contract farming literature has been about whether it is good or bad, often led by New Institutional Economists in the pro-side and political economists on the negative side. Contract farming is, more or less, here to stay for the time being as a popular agricultural business model, so focusing on the normative argument of good or bad can be unproductive. A narrow focus of “is contract farming beneficial or not?” might cause us to miss out on 1) what is actually happening in contract farming schemes in terms of concrete exchanges and outcomes and 2) the more nuanced reality in how contract farming effects both those engaged with the scheme (contract farmers and investors) as well as those outside the formal scheme but still affected (the excluded local population). While this dissertation certainly does not speak to all unexplored issues in contract farming, it opens up new ways of exploring and analyzing contract farming schemes by focusing on relations and power that contributes to scholarly work in understanding the how and why of contract farming schemes. With the knowledge that can be gained from exploring relations and power in contract farming, further theoretical conceptualizations can be developed, and more comprehensive analyses can be made in understanding the effects of contract farming. Ultimately, this has the potential to contribute to understanding best practice in contract farming in Sub-Saharan Africa, as well as broader implications for general agricultural development.

This dissertation aims to contribute to the literature on contract farming, with potential implications for broader discussions on agricultural development—both empirically and theoretically.

**Empirically:** This dissertation contributes to contract farming literature by adding four significant case studies showing the outcomes of contract farming for the different actors involved: the contract farmers, excluded local population members, and the investors.

Specifically, there is a focus on a number of important factors/areas of life that can be affected or not by contract farming. Empirically, data has been gathered on land, livelihoods, well-being, farmers' organization, access to inputs and services, and working with the company. This study adds to the empirical literature on contract farming in Sub-Saharan Africa with these four cases from Tanzania.

**Theoretically:** This dissertation contributes theoretically to contract farming literature, as well as potentially broader implications related to large-scale natural resource investments in two main ways.

**1) Relational conceptualization**

This dissertation contributes theoretically to contract farming literature by proposing an analytical conceptualization for studying relationships within contract farming schemes. By focusing on characterizing the three main relationships that contract farming schemes are composed of at the local level, this framework allows for a deeper understanding of the full implications of contract farming's impact on a local population. The characterization of these relationships allows for the identification of what drives contract farming schemes even in the face of inequality. This framework is useful when studying contract farming schemes in other sectors or countries.

**2) Power dynamics**

Using the above framework as a starting point, this dissertation addresses the limited discussion of power in contract farming and proposes further theorization of how power can be considered and understood in contract farming schemes. The contribution is to propose that holding power, a concept developed by Khan (2010), is useful in understanding why and how contract farming schemes are either sustained or start to break down. Applying this conceptualization of power to contract farming enables the study of power distributed outside the contract farmer-investor relationship, as well as providing a temporal frame for discussing power over time. This conceptualization of power is useful when analyzing contract

farming schemes in other cases, particularly when contract farming schemes encounter conflict.

## 1.6 Outline of the Dissertation

To answer the four working questions and the overall research question, this dissertation unfolds as follows. Chapter 2 presents the literature review related to contract farming, structured around three distinct phases of contract farming's popularity in both the literature and among stakeholders, thus leading to the two main research gaps of this study on power and relations in contract farming. Chapter 3 presents the analytical framework, building on contract farming's research gaps concerning power and relations to analyze relationships in contract farming, and uses the concept of holding power to analyze power in these relationships. Chapter 4 identifies methodology, describing the research process, case study selection, fieldwork phases, and data analysis. -These chapters prepare for the next group of chapters, 5-8, in which the working questions are addressed, and the empirical work is presented. Chapter 5 not only provides a contextual background of agriculture, Tanzania, and the sugar and rice sectors but also presents the four empirical cases. Chapter 6 focuses on the rice sector and the exchanges and relationships formed between the contract farmers and the investors in the Kapunga and MKRS cases. Chapter 7 focuses on the sugar sector and the subsequent exchanges and relationships among the contract farmers, farmer organizations, and investors in the KSCL and Mtibwa cases. Chapter 8 addresses not only the members of the excluded local population in all four cases and their relationships to contract farmers and investors but also power within these relationships. Chapter 9 summarizes this study's findings, proposes future research, and reflects on the work and its contributions to broader debates of changes in agricultural development.



# Chapter 2: A Review of the Contract Farming Literature

## 2.1 Introduction

The literature on contract farming is considerable in size and extensive in scope, focus, and perspectives. The aim of this chapter is to illustrate how contract farming has, over time, been viewed as a concept and practice that addresses various issues relating to how to grow and develop the agricultural sector. By exploring contract farming's purpose as an intervention and solution to issues surrounding land, markets, welfare, and agricultural productivity, two important literature gaps are discussed. The first is that of relations in contract farming between the various actors – investors, contracted farmers and those not included in contract farming schemes and the second is that of understanding power in contract farming. This chapter will highlight and discuss these gaps, which are then the focus of the analytical framework in Chapter 3. The contract farming literature lacks, I argue, discussions about and a framework for understanding the relations between the key actors, and such a framework would help identify what characterizes the relations and understand what drives contract farming schemes at the local level. The concept of bargaining power is a commonly used term in contract farming and, while useful, is limited in how it conceptualizes power in contract farming over time and in spaces beyond the contracted farmer-investor relationships. Thus, an expanded understanding of power dynamics in contract farming will address this limitation.

While attempting to be both broad and thorough in this review, I have made choices to limit the focus of this dissertation's review, as a completely comprehensive review of all the literature in all its facets easily could be the length of an entire book, and it would be difficult to pinpoint the connections to the empirical and theoretical contributions of this dissertation. I have mainly considered contract farming literature written on developing economies; however, I have not made a distinction between geographical areas. Although the review is heavily



focused on studies of Sub-Saharan Africa, I found that an exclusive focus on these studies would ignore other relevant studies that speak directly to this dissertation.<sup>3</sup>

While definitions of contract farming vary, what they have in common is a recognition of the formalization of a relationship between producers and buyers, with stipulations that go beyond a fixed price and include provisions of inputs or other elements useful in the production of the crop. Little and Watts, in their pivotal 1994 book on contract farming, define contract farming as:

forms of vertical coordination between growers and buyers-processors that directly shape production decisions through contractually specifying market obligations (by volume, value, quality, and, at times, advanced price determination); provide specific inputs; and exercise some control at the point of production (i.e., a division of management functions between contractor and contractee). (p. 9)

This definition illustrates how contract farming leads to changes in the procurement and standard of primary production, due to both specific quality requirements and transfers that allow the primary producer to improve their production. More simply, this is related to “agricultural production carried out according to a prior agreement in which the farmer commits to producing a given product in a given manner and the buyer commits to purchasing it” (Minot, 2009, p. 37). The main idea that needs to be understood is that contract farming denotes the establishment of some sort of formal relationship between producers (farmers) and processors/buyers (investors/companies) of agricultural products. Particularly in a Sub-Saharan African context contracts are not always written ones (Weatherspoon et al., 2001).

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<sup>3</sup> Contract farming is also discussed in the context of the global value chain (GVC) literature (see for example: Daviron, 2002; Lee et al., 2012; Daviron and Gibbon, 2002; Bolwig et al., 2010), but it is not included here specifically as a focus as it utilizes a different analytical framework and language than the rest of contract farming literature. The GVC literature related to contract farming speaks specifically to how contract farming can lead to upgrading within the global value chain (Lee et al., 2012; Daviron and Gibbon, 2002). What the GVC literature adds to contract farming is how upgrading in contract farming takes place and how the relevant value chain can contribute to economic transformation. I focus specifically on the horizontal exchanges between actors, whereas the GVC literature has a much broader focus and focuses specifically on vertical exchanges (Daviron and Gibbon, 2002).

The formality of the contract, whether it is written or not, and its related enforceability are not discussed in depth here, but these issues are addressed in the literature (Gow et al., 2000; Fafchamps, 1996; Kirsten and Sartorius, 2002; Dannson, 2004; et al., 2016).<sup>4</sup> The arguments here are that a lack of enforceability can cause farmers to leave and contracting schemes to break down, so even though I do not give much space to it, it is important to remember that lack of enforceability can have an impact on the success of contract farming schemes.

Some literature (Eaton and Shepard, 2001; UNCTAD, 2009; Vermeulen and Cotula, 2010).

further categorizes contract farming model types into typically five models:

- *centralized model*: One buyer/processor purchases primary product from a number of farmers
- *nucleus estate model*: The buyer/processor also maintains a plantation for some of the primary product used in production, in addition to what is sourced from farmers
- *the multipartite model*: A more complex version of the centralized or nucleus estate model, including other institutions like farmers' associations or banks
- *the informal model*: Contracts are informal, often renewed seasonally, without a significant provision of inputs and services from the buyer, thus making it easier to leave the scheme
- *the intermediary model*: Involves a sort of middleman who procures the primary product and then sells it to the processor

These categories help separate contract farming models by breaking down their structural differences, which can be useful when comparing the impacts of different types of contracting models. I find this can be useful when visualizing certain cases as it helps map all the relevant stakeholders and spaces where exchanges occur between the parties, but I find that a focus on the organization of the scheme alone as explanatory of issues or outcomes to exclude other

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<sup>4</sup> Some of these scholars argue that enforceability is one of the key factors of success in contract farming. While I agree that it can be a decisive factor regarding success, I focus on other factors influencing durability.

factors that might be at play, including power and relationships. It also excludes other actors and relationships that are important, including governments, NGOs, farmers' associations and donor organizations. These terms, while helpful in some instances are difficult to apply in that sometimes contract farming schemes can be a mix of different types of models. The theoretical value of separating contract farming schemes into these different types of models is, I argue, not fully developed. I find using these terms does not add anything analytically relevant to this study, and thus I have not applied them in this dissertation.

While not listed as a particular model, contract farming is often used interchangeably with the term outgrower schemes (Glover, 1984). This classification is usually used to denote a scheme between farmers and some type of government or public-private agency (Wendimu, 2016; Glover and Kusterer, 1990). I mention this as the outgrower term often comes up in the literature as well as in some of my cases, but I have chosen to use the term contract farming almost exclusively to maintain clarity in the dissertation, as I see it as a broader term that encompasses many different forms of formal relationships between farmers and investors, including outgrower schemes. Thus, the working definition I use for contract farming is: *any formal agreement (oral or written) to sell products from producer to processors in which crops or other raw agricultural materials (milk, poultry, etc.) are sold via a fixed set of terms to an investor or agro-processor* (based on Minot, 2009; Little and Watts, 1994).

#### *Organization of the chapter*

Organizing a complex phenomenon with multiple stakeholders, outcomes, perspectives, and debates is not a straightforward process. I have chosen to organize this literature review by first introducing an analytical perspective to help organize the review, namely the What's the Problem Represented to Be approach (WPR approach) put forward by Bacchi (2012a). The purpose of using this tool is to help organize the literature into three thematic phases of contract farming as an intervention, and to explore the underlying motivations and problems that have accompanied the promotion and usage of contract farming. Following the introduction of Bacchi's WPR approach, I look at three different phases of contract farming,

using the WPR approach to help address the underlying problematizations that contract farming is presented as being a solution to. Following this, I briefly explore some methodological issues pointed out in the literature regarding the study of contract farming. The last section prior to the conclusion discusses in further detail the research gaps around bargaining power and relations, connecting this literature review to the analytical framework discussed in Chapter 3.

## 2.2 Exploring Contract Farming: A Bacchi-inspired Reading Guide

Here I introduce a framework which allows me to identify the underlying problems that accompany what I argue are three distinct phases of contract farming's popularity in both the literature and practice. After reading the literature and noticing different phases over time, this framework from Carol Bacchi on problematizations (2012a; 2012b; 2015) helped me to identify the central issues or problematizations that surround contract farming's rise to relevance in the different time periods as an answer to different agricultural sector growth problems.

Contract farming, as explored here, is an intervention that has been promoted through different understandings of its purpose and capacity to cause positive change. While studying the literature, I sought to find a way to analytically understand what was behind contract farming being promoted as a solution to various agricultural production issues. In doing this, I wanted to bring forth the most important debates and some of the significant research gaps in the literature.

Thus, I found it useful to utilize Carol Bacchi's "What's the Problem Represented to Be?" (WPR) approach as a lens through which to view the literature and to discern which problems contract farming as an intervention has been used to address in the history of its existence. By doing this, I have been able to unearth common themes and the most relevant debates. I have used the approach to sort out concepts, ideas, issues, and problems that are situated in and around contract farming. Focusing on central themes and debates in the contract farming literature helped me identify relevant research gaps in the literature to focus on in this dissertation. In the following section, the framework is presented briefly, and I explain how I will apply it to the

literature. The implications of the applied framework will be integrated into the literature review as a way of bringing major themes and debates forward.

### 2.2.1. The WPR Approach

Bacchi has developed a method to invoke inquiry and examine public policy critically. To do this she asks, “What’s the Problem Represented to Be?” when examining policy. In this way, she inverts the relationship between policy and problems.

Bacchi (2012a) offers the following summary of how her WPR approach works, writing in third person:

The approach picks up and develops Foucault’s suggestion that ‘practical’ or ‘prescriptive’ texts provide entry-points for identifying problematizations. For Bacchi every policy or policy proposal is a prescriptive text, setting out a practice that relies on a particular problematization (or particular problematizations). She coins the term ‘problem representation’ to refer to the form of a problematization—the problematized phenomenon—in a specific site. The WPR approach rests on a basic premise—that what we say we want to do about something indicates what we think needs to change and hence how we constitute the ‘problem’. Following this thinking Bacchi argues that it is possible to take any policy proposal and to ‘work backwards’ to deduce how it produces a ‘problem’. (p. 4)

Here Bacchi discloses in her own words her inspiration and starting point from Foucault’s interpretations of texts regarding how “practical” or “prescriptive” (2012a, p. 4) texts can aid the process of identifying problems. The core of her approach is to examine the solutions offered in, for example, policy documents, and then use an inverted process to identify the problem. The problem then reveals what is assumed and what is categorized as something that needs to change (so that it is no longer a problem). Furthermore:

At the risk of oversimplifying, the term ‘problematization’ tends to be used either as a verb (i.e. to problematize) to describe what people (policy makers/workers, researchers)

do, or what governments (broadly conceived) do, or as a noun (i.e. problematizations), generally to refer to the outcomes of problematizing. The verb form can be used in two ways: first, to describe a form of critical analysis; second, to refer to putting something forward, or designating something, as a ‘problem’—that is, to give a shape to something as a ‘problem’. (Bacchi, 2015, p. 2)

Here, Bacchi delves into the grammatical details of defining problematization. In particular, I adhere to the last part of the above quote where she uses problematization as a verb that “give[s] shape to something as a ‘problem’” (ibid., p. 2), which is how I will apply the term below in order to try and understand why contract farming was promoted at certain times.

In illuminating what the approach can do for problematization analysis, Bacchi (2015, p. 2-3) then further explains how her own work can open alternative paths of thinking about certain issues, in a way that aims to uncover the way we produce and practice thinking:

Bacchi’s (1999; 2009) WPR (What’s the Problem Represented to Be?) approach to policy analysis offers a Foucault-influenced mode of problematization analysis that ‘consists in seeing on what type of assumptions, of familiar notions, of established, unexamined ways of thinking the accepted practices are based’ (Foucault, 1994 [1981]: p. 456). Webb (2014: p. 368) also offers a ‘policy problematization’ approach that ‘seeks explanations about the ways thinking is practiced and produced’. (Bacchi, 2015 pp. 2-3)

Additionally, I find Bacchi’s reflections on using this approach in terms of self-reflexivity useful, as it is essential to think about researchers’ individual approaches to their own work.

The practice of studying problematizations encourages exactly this form of critical reflexivity. Such a practice prompts researchers to keep a critical eye to their own analyses, which can only ever be part of a problematization [...] A study of problematizations, therefore, offers researchers the possibility of getting inside thinking

– including one’s own thinking – observing how ‘things’ come to be. It gives access to the spaces within which ‘objects’ emerge as ‘real’ and ‘true’, making it possible to study the strategic relations, the politics, involved in their appearance. Examining thought in this way puts into question the presumed fixity of the thing ‘thought’ and, by so doing, makes it possible to think otherwise. (Bacchi, 2012, p. 7)

By applying the above approach to my own reading of the literature, I was able to think about issues and events that I had not thought about before, but that could be related to cases of contract farming. Yet still, whatever the outcome is, the ideas developed by the scholar will still only be a part of the whole problematization. By applying the above to my own thinking, I was able to “think outside the box” when constructing meaning out of the vast literature on contract farming. It encouraged me to think more critically about contract farming, to question what the purpose of contract farming has been claimed to be, whom it is supposed to benefit, and how policy and intervention constructions around contract farming can be problematized. Additionally, I was encouraged to look at actors and relationships to try and understand why contract farming became a promotable and popular intervention. The WPR approach consists of the following six questions and a last step when dealing with one’s own problems:

**Table 2.1 The What's the Problem Represented to Be Approach**

<p><b>What's the Problem Represented to Be Approach:</b></p> <ol style="list-style-type: none"><li>1) What is the problem represented to be?</li><li>2) What presuppositions or assumptions underpin this representation of the problem?</li><li>3) How has this representation of the problem come about?</li><li>4) What is left unproblematic in this problem representation? Where are the silences? Can the problem be thought about differently?</li><li>5) What effects are produced by this representation of the problem?</li><li>6) How/where has this representation of the problem been produced, disseminated and defended? How has it been or could be questioned, disrupted and replaced?</li></ol> <p>Apply this list of questions to your own problem representations.</p>
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*Source: Bacchi, 2012b in Bletsas and Beasley, 2012, p. 21.*

The six questions and one step are designed to take the scholar through a process of considering how they might be applied to the scholar's own work. It starts by inverting the relationship between problem and solution, and from there challenges one to go beyond and deeper behind the result of the first question. Each question builds upon the last, and the final step is then to use this approach in one's own problem representations. Addressing the problem representations in contract farming as a concept is my application of this final step of the WPR approach.

### 2.2.2. Using the Approach with Contract Farming

When engaging with the literature, I found that the problems that contract farming was proposed to be the solution to seemed to change during different time periods, not necessarily drastically, but still changing. This emergence or awareness of different peaks of contract farming's popularity led to the speculation that these phases might be consequences of specific catalytical events in each period of time. Thus, I found the WPR approach useful, as it allowed me to then ask why contract farming was considered a solution in this literature in particular,



and what problems were being problematized in the literature. What was the catalyst(s) in each phase? If contract farming is the “answer” in its different phases of emergence, then what problem(s) does it address?

Invoking a WPR approach when seeking to understand and organize the literature of contract farming has disclosed the various problematizations that have been connected to contract farming over the past half a century. I identified three distinct phases of contract farming, each of which revolves around a problem or two, where contract farming was determined to be a solution to said problem, to which I then apply questions from the WPR approach. Identifying the problems in these three phases focuses the literature review; invites further analysis of which problems and subjects are not clearly addressed; and identifies research gaps that are addressed in this dissertation.

#### *Applying WPR*

In using Bacchi’s approach to guide my literature review, I decided to use the first two questions of the approach: “What is the problem represented to be?” and “What presuppositions or assumptions underpin this representation of the problem?” (Bacchi, 2012b, p. 21) and apply them to the different phases of contract farming. Bacchi advises that not all questions have to be addressed when applying them to one’s work (Bacchi, 2009, p45). By applying question one, I can identify which problem(s) contract farming was characterized as the solution to within each phase. Then, applying question two allows for further elaboration, as well as thinking about what lies beneath the problematization that contract farming was said to address in that time period.

Another reason for utilizing this approach is that the peaks in interest in contract farming are often related to (public) policy and the interests of policy makers. I find the phases of contract farming’s emerging prevalence to be directly related to problems that arose in different circumstances in which certain stakeholders applied contract farming to these problems as a solution. These actors include private corporations, governments, and donors/international organizations, all of which play a role in policy formation. However, perhaps more important is that these groups are the ones who form and (impose) the importance of contract farming on

the actual persons (farmers) who become subjected to it. In this way, I draw a parallel to Bacchi's use of the framework to problematize policy.

### 2.3 The Story of Contract Farming: Three Phases

The contract farming literature is rich in content, evidence, and debate. Telling the story of contract farming is not uncomplicated because it involves many different actors, time periods, and schools of thought. In my reading and analysis of contract farming literature, I have identified three phases in which contract farming was deemed a solution to distinct problems. The *first phase* was instigated during de-colonization (post-independence), leading to the increased nationalization of farms, particularly in Africa and Asia, which in turn meant less foreign ownership of land and the relative downturn of plantations over time, due to land and labor issues in particular (Kirk, 1987). At the same time, the World Bank began to push for rural development strategies, which led to a dual promotion of contract farming and support of members of the private sector who employed contract farming in response to the declining attractiveness of plantations due to land access and labor shift issues (Kirk, 1987; Buch-Hansen and Marcussen, 1982).

The *second phase* began in the aftermath of structural adjustment policies and market liberalization across the developing world. This created space for an acceleration of contract farming due to the now declining intervention of the state and falling public investment; farmers still needed ways to access markets and inputs. Contract farming was then promoted as a solution because it could provide solutions to the market gaps and service gaps created by market liberalization and increased privatization (Little and Watts, 1994; Oya, 2012; Kirsten and Sartorius, 2002; Reardon and Barrett, 2000; Grosh, 1994).

The *third phase* was in part prompted by the food crisis of 2007-2008 and the corresponding debate around land grabbing. This has led to increased awareness of land tenure and land rights, which has led to private investors being more receptive to contracting as a solution to both accessing land and creating good community relations. Additionally, aid agencies and

donors still promote contract farming, this time as a possible way to encourage more inclusive growth (Wach, 2012; Vermeulen and Cotula, 2010).

While the amount of focus given to bargaining power and relational conceptualizations in the different phases varies, for each phase I will summarize how power and relations are seen to unfold.

### 2.3.1. Phase I: Shifts Away from Plantations and Global Changes in Agribusiness

Contract farming is not a recent invention: it has been a part of agricultural production for a long time, and it has been expanding since the early 1900s. It had even existed in Japan since 1885 (Runsten and Key, 1996; Rehber, 2000) and in the 1940s it started becoming popular in the US and Europe (Watts, 1994). Contract farming is now considered fairly standard across many sectors in developed countries (Kirsten and Sartorius, 2002; Watts, 1994). The emergence of contract farming in the field of development studies and in developing countries began in the 1940s-1960s, starting with Latin America (Ochieng, 2010). This was credited as being due to the influence of Import Substitution Industrialization policies, which in turn formed what Korovkin (1992) called an “agrarian and agro-industrial bourgeoisie” (p. 229) in which responsibility for agribusiness promotion was extended beyond just the private sector to the state, and was also characterized by an increase in state institutions that would collaborate with Trans National Companies (TNCs) in agri-business (Kirk, 1987).

#### *The decreasing popularity of plantations in a post-colonized world*

In particular, changes in the popularity and functions of plantations led to contract farming’s emergence post colonization post-independence of, in particular, developing African states (Kirk, 1987; Dorward et al., 1998). Plantations started to be contested, in part as they were reminders of colonization. Kirk (1987) argued that

not only [are plantations posing] economic problems, but also political, technical and organizational limitations have emerged. Furthermore, plantations have been heavily criticized for being themselves agents of stagnation and underdevelopment rather than progress. (p. 45)

Already prior to the decolonization process, traditional agricultural production systems had been disrupted by colonization, which led to changes in traditional subsistence farming (Buch-Hansen and Marcussen, 1982). The rise of contract farming particularly in Africa and Asia is linked to the decolonization process and was initially widely attributed to state-owned enterprises that used contracting to “promote a petty-capitalist African agricultural bourgeoisie capable of absorbing potentially rebellious land-less Africans as wage labourers and making the country less dependent on external assistance” (Ochieng, 2005, 2010, p. 137). Interest in involving rural populations in the national economy may also have influenced states’ promotion of contract farming (Buch-Hansen and Marcussen, 1982; Kirk, 1987).

The problematization of plantations also influenced the rise in support for contract farming. Specifically, the decline in plantations post-colonization is credited as being due to issues of land and labor (Kirk, 1987). Plantations lost or had restricted access to land as a result of this post-independence process, as newly developed country governments reclaimed or nationalized land. Thus, investors started seeking alternative models of procurement of primary product. Labor became more expensive, in part due to unionization, further increasing the costs of plantation farming. Also, labor costs could be cut significantly by pushing them onto the contracted farmer, as the focus of the relationship was the selling of a crop and not an employment per se:

therefore [it is] good ‘capital logic’ for an international agri-business firm to leave the agricultural production to the direct producers [...] or contract farming [...] large state plantations are politically not so feasible in a Third World situation of increased land scarcity. (Buch-Hansen and Marcussen, 1982, p. 16)

#### *Private and global motivations for contract farming*

In the decades following post-colonization, international organizations also supported contract farming as a good solution for TNCs and a rural development strategy as it was deemed less risky than land investments (Kirk, 1987; Buch-Hansen and Marcussen, 1982). Kirk also notes that contract farming promotion by private companies could give an appearance of being progressive by seeming to promote smallholder agriculture as well as being supportive of

national agendas to increase smallholder participation, which could both attract funding from donors and support from said governments in implementing their investments, as is also discussed by Korovkin (1992).

In addition to national pressures on the plantation system, changes in agri-business in the developing world played a role that has been linked to the promotion of agricultural models such as contract farming. These global changes are related to the falling prices during in particular the 1970s, the foreign exchange crisis of the mid 1970s, and debt repayment issues for developing nations (World Bank, 1981; Watts, 1992; Glover, 1984; Sanderson, 1986). Buch-Hansen and Marcussen (1982) put it like this:

the establishment of capitalist relations of production in agriculture seems to go hand in hand with the spread of international agri-business activities in the Third World, whether in the form of the establishment of plantations, the sale of pesticides and fertilisers etc., or the structural organisation of small-holder agriculture in the form of 'contract farming'. At the same time, the decline in agricultural food prices has also led to developing countries taking on agricultural policies that are more focused on rapid change. (p. 10)

Furthermore, Watts (1994) describes the development of contract farming in the following way:

in the less developed world, contract production in the agrarian sector has a dual origin. First, contract farming is complementing, occasionally competing with, and partially replacing plantation and estate agriculture [...] Second, contracting arises as independent peasant households and sometimes newly settled pioneer families, are subsumed under state and/or private auspices producing a variety of commodities for domestic consumption and export. (p. 34)

Watts further argues that contract farming is "one fundamental way in which the twin processes of internationalization of agriculture and ago-industrialization are taking place" (Watts, 1994, p. 23). Thus, contract farming occurs due to national-level changes and pressures

on the agricultural system, such as labor and land changes, that were then repeated on a global scale, but also as a response to increased pressure on developing nations due to falling prices and subsequent changes in agricultural policies.

#### *Applying the WPR Approach to Phase I*

At this point, it is helpful to utilize Bacchi's questions. With regard to the first question, "What is the problem represented to be?" (Bacchi, 2012b, p. 21), from the above it can be seen that plantations started to lose their popularity in the post-colonial era, particularly due to land and labor issues, which resulted in fewer foreign investors acquiring large amounts of land for production (Kirk, 1987). This, along with rising costs of plantations (since better labor conditions were now required), made it difficult for large private corporations to run plantations.

Companies could utilize contract farming to resolve two primary issues: 1) their access to land was becoming limited after de-colonization due to a decrease in the popularity of plantations; 2) the costs of labor went up and contract farming was a way to keep these costs low by removing some of the costs of having employees (Kirk, 1987; Buch-Hansen and Marcussen, 1982). If contract farming then becomes the solution, it becomes possible to think about it in reverse by then asking what the problem is represented to be (WPR question one). Contract farming was envisioned as addressing the following problem: companies engaged in processing could no longer easily access land for plantations and needed new ways to access product.

When engaging with the second question of the WPR, "What presuppositions or assumptions underpin this representation of the problem?" (Bacchi, 2012b, p. 21), underlying assumptions seem to surface. The assumption in this problem representation is that TNCs need access to land and primary agricultural product in order to conduct their business.

#### *In summary*

In summary, Phase I was about the emergence of contract farming in response to governance and political shifts after de-colonization and through the 1970s and 1980s. In the post-colonial period, contract farming offered solutions to the decreasing popularity and availability of plantations as agricultural business models for large TNCs. Contract farming was presented as a natural solution or even evolution away from the problems that arose following the decline of plantations. The "earlier" literature on contract farming in this phase paid attention to contract

farming's role in land distribution and as a solution to issues related to business and market structures in the post-colonial period, which is important as land remains important in the later phases of contract farming. Land acquisition by major investors and the role of contract farmers in accessing markets remain pertinent issues in contract farming today, so it is of value to note that these concerns and the importance of contract farming as a solution were present during this phase. Contract farming was also seen as a response to changing global agri-business systems. The concept of bargaining power is most popular in Phase II, so when considering this concept in Phase I, it is necessary to think about broader interpretations of power. Contract farming's popularity in Phase I in part reflects power shifts that occurred during post-colonization – e.g. TNCs engaged differently with agricultural production in developing economies. The renewed focus on smallholders through in part, contract farming, reflects an important transition in power dynamics in agricultural production systems in developing economies and a recognition of the importance of the role of the smallholder. The literature from this phase discusses relations in contract farming, but usually in terms of how contract farming is related and linked to changes in agriculture influenced by global phenomena or movements.

### 2.3.2. Phase II: Liberalization and the Rise of Critical Perspectives

During the 1980s and 1990s contract farming became a widespread response to structural adjustment and liberalization of world markets and some of the failings of the Green Revolution (Little and Watts, 1994; Oya, 2012; Kirsten and Sartorius, 2002; Reardon and Barrett, 2000). The results of the structural adjustment programs included the rolling back of many marketing boards and other state initiatives in agriculture, which in part led to market failures, meaning that many developing countries needed alternative forms of engaging with agriculture, such as contract farming, as developing countries were seemingly under pressure from the pro-liberalization stance of the Global North and other global paradigms (see Havnevik et al., 2007). Accompanying the rise of contract farming in this phase was also the emergence of distinct critical perspectives on contract farming.

As the state stepped back, and liberalization and privatization increased across much of the developing world (Badiane and Makombe, 2015), contract farming became a private sector strategy, or more accurately, a private sector strategy pushed by donors and governments, particularly for its seemingly high level of coherence with the typical development of the private sector, and as parastatals were sold off to private companies (Grosh, 1994, p. 232; Oya, 2012). Contract farming was seen as a way to solve the issues created by the liberalization of markets, one major one being market failures, in that contract farming could ensure that crops were sold at a fair price when fair, accessible markets were not available due to decreased regulations of these (Grosh, 1994; Oya, 2012; Minot, 2009). This platform of market issues was also where New Institutional Economists (NIE perspective) began to promote contract farming as a solution to specific market gaps and failures (Oya, 2012, p. 5), partially in response to a decrease in public investment which included cutting access to inputs and extension services (Bolwig et al., 2009; Key and Runsten 1999). The Green Revolution in Latin America and Asia had pushed the promotion of inputs and credits to revolutionize smallholder agriculture (Badiane and Makombe, 2015) but these same types of programs then lost priority after structural adjustment. Therefore, contract farming was considered to be one way to re-prioritize some of the interventions that had worked well during the Green Revolution. Some of the specific market failures contract farming aimed to address were lack of quality assurance, pricing issues and demand. It was often a challenge to find agricultural products that met the standards held by agro-processing firms; contract farming was able to help assure quality standards, the mode of pricing, or make up for the lack of ability of spot markets to provide coordination. Contract farming also can help farmers avoid lack of demand, or problems to due to global markets, which leaves the farmer in a position of not knowing whether or not to grow the same crops again. Demand and coordination of delivery are particularly important for crops that are highly perishable or require a quick turn-around to processing plants (Grosh, 1994). Due to the unavailability of production credit (i.e. loans), many farmers were unable to produce certain crops and without the necessary inputs, which is an important market failure that contract farming can address by providing these credits through the contract (Kirsten and Sartorius 2002; Masakure and Henson, 2005; Eaton and Shepard, 2001). Kirsten and Sartorius



(2002) argue that liberalization and domestic market reforms have had a negative effect on farmers being able to operate optimally in the new situations; thus, the need for new solutions. This rise of NIE-focused studies was also due to contract farming being seen as a way to empower smallholders and contribute significantly to their income (Masakure and Henson, 2005; Eaton and Shepard, 2001) as well as foreign exchange (Kirsten and Sartorius, 2002). NIE perspectives also point out that greater systematization in agricultural supply chains can be achieved through contract farming.

Addressing market failures and the declining intervention of the state characterized this shift in thinking about contract farming. In terms of how the different actors related to this shift, addressing market failures solved significant issues for farmers, particularly concerning pricing and access to a place to even sell their product. Governments, in light of shifts in how public investments in agriculture functioned (Badiane and Makombe, 2015), perhaps like how contract farming has the potential to address these issues without necessarily a heavy burden of institutional support. Coulter et al. (1999, p1) put it this way:

One of Africa's main development challenges is the delivery of agricultural services [...] to smallholder farmers. Economic liberalization and institutional reform have reduced and redefined the role of the state in service provision and the onus is now on the emerging private sector to provide production and marketing services. (p. 1)

Thus, a key part of this solution was that contract farming could provide inputs and services to farmers and communities. The various outcomes of contract farming are discussed in this dissertation. Contract farming was also thought to create spillover effects into the local community, opening up new types of employment, and giving rise to infrastructure and market improvements in rural areas (Key et al., 1999).

#### *Policies and donor pushes during this phase*

Due to policy shifts in the post-liberalization developing world, contract farming became more prominent in subsequent policies as well as in donor guidelines and priorities. Contract farming was deemed particularly useful for export-focused crops in the 1980s and 1990s. The World

Bank and other similar organizations began to laud contract farming as a viable path for smallholder development and rural development in light of post-liberalization and market failures (Oya, 2012; World Bank, 2007). This built upon the World Bank's earlier support of contract farming due to its relation to rural development strategies, as discussed in Phase I. The rising popularity of contract farming among aid agencies was possibly due to the marriage of multiple stakeholders' interests: governments, donors, and TNCs could all get behind contract farming as they all had the potential to gain from it (Glover and Kusterer, 1990). Governments could gain aid for the rural sector and the commercialization of smallholders, which would in turn fit the strategies proposed by donors; TNCs could lower their transaction costs; and donors would be able to support this strategy as one that could be interpreted as being pro-poor.

#### *Poverty reduction and welfare impacts*

One of the overarching drivers of contract farming is the expectation that it can bring about poverty reduction by allowing farmers access to inputs, services, and markets in order to both improve the quality of their crops and create a protected space to sell them (Grosh, 1994; Oya, 2012; Minot, 2009; Kirsten and Sartorius, 2002; Masakure and Henson, 2005; Eaton and Shepard, 2001). A number of studies have looked at the impacts of contract farming on the welfare and income of involved farmers. These studies vary significantly in terms of their geographical location, the socio-economic circumstances of the farmers, and the crops and context under study. In this section, I have included studies that have shown positive income increases as a result of contract farming schemes, which are intuitively indicative of present or eventual poverty reduction, as well as ones that show negative or incomplete effects. Warning and Key (2002) found that contract farming was a significant contributor to income increases among participating farmers and that these living standard increases may have caused spillover effects for "employment, infrastructure and economic growth in the region" (p. 261). Also significant was their finding that the farmers included were of equal social-economic status to the non-participant farmers, showing that contract farming did not favor the better off to begin with. Simmons et al. (2005) also found positive effects and absolute poverty reductions in their three cases of contract farming in poultry, seed corn, and seed rice in Indonesia. Miyata et al. (2009) found that contract farming raised the income of small farms among apple and onion

growers in China. Birthal et al. (2008) found that contract farming in milk production in India lowered transaction costs and raised incomes, although not significantly; it did however also increase competitiveness at the local markets. Bolwig et al. (2009) also found positive income increases from contract farming participation for farmers engaged in organic coffee farming in Uganda, and that, controlling for other factors, it resulted in a 12.5% increase of “mean (total) household revenue” (p. 1102). Saigenji and Zeller (2009) also found positive impacts on Vietnamese tea farmers with contracts. Bellemare (2012) also showed positive increases in household income as a result of participation in contract farming in Madagascar.

#### *Private sector motivations for contract farming*

When thinking about contract farming as a solution to market failures, it is helpful to look at the private sector’s interests in contract farming. The literature talks about the private sector’s motivations, which some scholars boil down to risk management (Oya, 2012; Minot, 2009; Dorward et al., 1998). Contract farming offers opportunities for agro-businesses to reduce their risk when procuring product. This can be achieved in several ways. Some risks are associated with production, as in obtaining access to higher quality goods through providing inputs and technical services through contracting, or in price setting in order to avoid problems with spot markets. Kirsten and Sartorius (2002) also show how agriculture has become more focused on vertical coordination as this leads to higher quality production in part in response to shifts in the Global North regarding diet and health and awareness of food safety, which has led to a push for more splintered and niche markets.<sup>5</sup> Another significant motivation for private actors is that contract farming increases economies of scale and correspondingly reduces transaction costs (Bolwig et al., 2009). Bijman (2008) refers to this branch of NIE as transaction cost economics: from this perspective contract farming is seen as having the ability to reduce transaction costs compared to a “spot market arrangement” and “CF can reduce uncertainty for producers because the contractor provides a guaranteed outlet” (ibid., p. 10) – contract farming increases reliability for farmers in terms of knowing that they will be able to sell their crops. The contractor in return is also more certain about the quality of the produce they will

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<sup>5</sup> Shifts in the Global North also continue to affect demand on agriculture in the Global South, such as consumer awareness of fair trade and organic products.

purchase due to inputs and services exchanged. A key benefit of contract farming is reducing uncertainty for both parties through mutual agreement.<sup>6</sup>

Another reason the private sector engaged in contract farming was the pressure it faced to involve smallholders, often stemming from the political climate in the particular country (Dorward et al., 1998). This pressure can also come from donor organizations and thus have purse strings attached, i.e., if you invest in contract farming, grants will become available to you, which also reduces costs (Kirk, 1987). In sum, in this phase, the private sector's involvement in contract farming is motivated in part by risk management, production efficiency and economies of scale, and relationships with developing country governments.

#### *Rise of critiques of contract farming*

The promotion of contract farming as a response to market failures, privatization, and as a tool for poverty reduction was coupled with the rise of critiques regarding the effectiveness and equity of contract farming. NIE approaches often lauded the potential of contract farming schemes to solve market failures and give small farmers a chance to participate in the global changes in the agricultural sector. At the same time, there also arose in the literature a more critical approach to contract farming, sometimes referred to as a political economy approach or lens (Oya, 2012, p. 3), where concerns about differentiation, proletarianization, and other inequalities that might be worsened by contract farming started to emerge.

Little and Watts (1994) in their edited volume are critical of contract farming's ability to provide benefits that outweigh its disadvantages. One concern is that land given to cash crops could potentially overtake the land used for food crops, which could lead to food insecurity at the household level (Havnevik et al., 2007, p. 54; Glover and Kusterer, 1990, pp. 17-18). Another related concern is that contract farming can lead to differentiation in the local communities and land conflicts (Korovkin, 1992; Clapp, 1988; Little and Watts, 1994). As the contract farmer still receives a type of wage or payment, they are in a sense still working for wages through the contract, which can lead to potential proletarianization. This proletarianization, as Korovkin describes it, "appears in a disguised form, whereby peasant producers preserve their access to

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<sup>6</sup> For more fully articulated explanations of NIE and contract farming see (Minot, 2007; Grosh, 1994; Bijman 2008).

land but lose their productive autonomy to agri-corporations” (p. 230). These critiques can be broadly categorized into two main critiques: 1) the potential exploitation of farmers and subsequent unequal bargaining power between farmers and companies; and 2) the differentiation and perhaps even proletarianization that might occur as a result of contract farming at the local level. Little (1994) prophetically summed up the contract farming debate in a way that still rings true today: “few topics on agricultural development in Africa invoke as much controversy as contract farming. While neoclassical economists and Western donors find contract farming attractive because it complements current paradigms that advocate economic growth, ‘free’ markets, and the private sector, its critics find much to contest” (p. 216).<sup>7</sup> These tensions highlight the issues around contract farming, equality, power, and relationships.

#### *Bargaining power and unequal relations*

Addressing the first critique, the ability of the farmers or the investor to negotiate their way to a better contract for themselves has been labeled bargaining power in the contract farming literature (Glover, 1990). Scholars have pointed out how unequal relationships between farmers and companies, often in favor of the company, can lead to issues such as barriers to entry and exit, problems with monopsonies or monopolies, and in general, weak levels of negotiating power, meaning that farmers can get “trapped” in bad deals. Scholars such as Sivramkrishna, Jyotishi and Glover have written about farmers getting trapped through unfavorable bargaining power relations (Sivramkrishna and Jyotishi, 2008; Glover, 1990). Monopsony, or the case of a single buyer (in contrast to a monopoly being the case of a single seller) is a situation in which contract farmers can be disadvantaged by a relationship to the company because of the lack of alternative places to sell their crops or opportunities to turn to a different income source, which can lead to serious exploitation of the farmers, as in particular noted by Sivramkrishna and Jyotishi (2008). If the farmers are dependent upon the investor, and something happens to the investor, the farmers could experience negative consequences if they no longer have a secure place to sell their crop (Bijman, 2008). Various studies have shown that one way in which poorer farmers can increase their bargaining power is by organizing

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<sup>7</sup> This ideological tension, so well-articulated in 1994, is still just as present nowadays, but few address the debate itself directly, with perhaps the exception of Oya (2012).

themselves into farmers' organizations (Barrett et al., 2012; Glover and Kusterer, 1990) or improving existing coordination within cooperatives (Singh, 2002), although farmers might be inclined to abstain from joining if they perceive the cooperative will not help them gain a better contract. However, some scholars argue that if there is not some level of monopsony in contract farming or other similar types of business transactions, it can result in the dissolving of contract farming or the investor being unable to secure a return on their investment (Baumann, 2000). For example, in the case of Mozambican soybean farmers, they left contract farming after gaining improved skills through the scheme (Di Matteo et al., 2016). These issues highlight sustained tensions surrounding power and relations. Addressing the issues of power, both *bargaining power* and a broader application, will help to advance theoretical and empirical understandings of power and relationship dynamics in contract farming.

#### *Social and economic differentiation*

Korovkin (1992) looked at two cases in Chile and argued that contract farming gave wealthier smallholders additional opportunities, but this also resulted in poor peasants (specifically farmers who were landless or in possession of very little land) transforming into a group of poorer laborers. Clear advantages were gained by those smallholders that participated, but the community level differentiation increased. The state arguably played an important role because it offered the loans necessary for fruit production to the smallholders who participated. Little and Watts argue that contracting regularly excludes groups of the rural population and tends to favor the middle class, with sometimes only the wealthier peasants being included (Little, 1994). Or as Kherallah et al. (2002, p. 149) put it, contract farming “recreate[s] aspects of the ongoing relationship that smallholders had with export cropping parastatals” (149). In addition to concerns that contract farming can lead to proletarianization of the lower labor class, there is also the labor effect of contract farming creating employment opportunities that encourage migration, often linked up with the seasonal labor needs of farming. It has, according to Little and Watts (1994, p. 226; Oya, 2012), both led to migration between countries and dissuaded rural-urban migration (Jaffee, 1987) as workers can find more work locally and do not need to move to larger cities.

Contract farming has the potential to impact economic differentiation. In part, the economic groups can be categorized into a) larger-scale farmers who are favored in contract farming, thus excluding smallholders, which can lead to increasing differentiation as the larger farmers get wealthier due to contract farming and the smallholders do not and b) the members of the local population who are not included in contract farming and who may face increased prices of food or farm inputs if contract farming drives up the prices in the local community, thus worsening differentiation. Concerns regarding contract farming's potential impact on economic differentiation can in part be categorized as follows: 1) larger-scale farmers will be favored while smallholders are excluded, which can contribute negatively to rural development; and 2) those who are not included but who live within the same communities will have to pay more for food or farm inputs, creating winners and losers (Bijman, 2008, p. 17).

Despite common concerns about economic differentiation, opinions on whether or not larger-scale farmers are preferred varies across the literature. As Glover and Kusterer (1990, p. 13) put it, "although larger growers do seem to be over-represented in the population of contract farmers, they are by no means the only ones to participate in outgrower schemes". The exclusion of the lower classes of the rural population can happen either because the company seeks and signs on only farmers with more resources, in order to lower their transaction costs (Key and Runsten, 1999), or when farmers are unable to participate in the contract due to insufficient resources to start growing the specific crop. If farmers who join the contracting scheme are already better off to begin with then differentiation can be exacerbated as they make gains from contracting, thus widening the gap between different groups of the rural population. However, Warning and Key (2002) found no evidence of bias towards larger farmers. Barrett et al. (2012) showed that participation is not random for contract farming; however, connecting asset holdings with farmer participation did not show any causal patterns. The downside of firms selecting the better-off farmers is that they make more demands in the contracts which may be less cost efficient for the investors in the end (ibid.). Contract farming can indeed contribute to social and economic differentiation. Differentiation can both lead to

and cause changes in power and relationships as local populations navigate the differentiation resulting or exacerbated from participation or lack thereof in contract farming schemes.

Other critical issues worth mentioning are: 1) if trust cannot be reached between smallholders and companies, this could lead to issues of longevity for the contract farming scheme (Singh 2002). 2) Local markets could become narrower if all resources are being put into the contracted product, which ultimately could put the communities at risk if natural disasters or major political shifts were to occur (Bijman, 2008).

#### *Political economy perspectives*

In general, the political economy perspective on contract farming argues that NIE focuses on market issues (failures) and transaction costs of contract farming, leaving out important motivations and disadvantages concerning how contract farming is implemented and what the real benefits are (or are not). This perspective considers the role of politics as well as globalization, agribusiness and labor “exploitation patterns” (Oya, 2012). Singh (2002) describes the political economy view as follows:

A political economy view of contracting, however, rejects these benefits to consumers and farmers and argues that contracting develops only when there is a diminished role of the state in agriculture, increased specialization of agricultural production processes, and the agricultural markets such as farm produce or credit become less competitive or inefficient. In fact, it argues that contract production is one mode of capitalist penetration of agriculture for capital accumulation and the exploitation of the farming sector. (p1624)

Thus, the political economy perspective goes beyond the market and diminished state roles to say that contract farming has arisen as a way to increase capital accumulation and exploitation, and that it can only happen because of the diminished role of the state.

#### *Why farmers participate*

Farmers participate in contract farming in part because of the potential benefits it offers.

Masakure and Henson (2005) identify four possible reasons for participating in contract farming: market uncertainty, indirect benefits, income benefits and intangible benefits. What



they found to be indirect benefits encompass aspects such as knowledge gains through training provided by contracting, and they categorize reasons as intangible benefits when they are about social status or other personal motivations. Guo et al. (2005) found in their empirical work in China that the vast majority of smallholders surveyed would join a contract scheme if given the opportunity. Barrett et al. (2012) puts it this way: “A smallholder accepts a firm’s contract offer when his subjective perception regarding his expected welfare level from participating in the CFA is at least as high as that of not doing so” (p. 719). Importantly, this does not mean that the contract is deemed to be fair, but that it is expected to improve the farmer’s life (ibid.). This is important to keep in mind, especially concerning debates around exploitation and equality in a contract. This raises the question, even if there are some exploitative elements in a contract, indicating an unequal relationship, is it truly exploitative if a farmer has entered the contract because they have judged that its benefits outweigh the drawbacks for their individual household?

Kirsten and Sartorius (2002) also offer a list of reasons for why farmers have been motivated over the years to participate in contract farming:

Farmers usually enter into contract production in order to reduce cost and gain access to information, technology, marketing channels, managerial skills, technical expertise, access to plant and equipment and patented production procedures (Carney, 1988; Rhodes, 1993; Glover, 1994; Clapp, 1994; Jackson & Cheater, 1994; Little, 1994; Royer, 1995; Pasour, 1998; Delgado, 1999; Vellema, 2000). Contracting could also improve access to capital and credit (Hudson, 2000). This is a major concern for most farmers and especially so in developing countries. Farmers are prepared to relinquish their autonomy for the sake of being able to produce. (p. 515)

Access to inputs, technologies and credit are drivers for contract farmers to participate. In preparing for the work in this dissertation, I found it particularly important to keep in mind from this section that farmers want to access schemes sometimes even in spite of certain obstacles, such as losing autonomy. Focusing in particular on why farmers choose contract

farming despite costs is something that can be explored further, as it is true that contract farmers join schemes even when they are seemingly set to be at a disadvantage, or may still experience unequal power relationships while in these scheme, but their motivations for joining remain drivers of continuing to participate in the contract farming scheme. This is further addressed in this study through the conceptualizations around power developed in the analytical framework, helping to enrich the understandings in the literature of why farmers participate in contract farming.

#### *Applying the WPR approach to Phase II*

When applying the first question of Bacchi's WPR approach to this phase – "What is the problem represented to be" (Bacchi, 2012b, p.21) – contract farming emerges as a solution to poverty and farmers facing a multitude of market failures. I see two problems in this phase:

1) The state's role and intervention in agriculture declined drastically after structural adjustment and market liberalization, leaving farmers without adequate inputs and access to markets. Here contract farming is championed as a solution that, through mostly private initiatives, can address market failures and lack of state support for farmers.

2) From a rural development perspective, a significant problem is the still vast numbers of rural families living in poverty who rely on agriculture as their main livelihood. Thus, NGOs and international organizations argued that this problem could also be addressed by contract farming, as a way of increasing incomes in agricultural communities.

By applying the second question of the WPR approach, "What presuppositions or assumptions underpin this representation of the problem?" (Bacchi, 2012b, p. 21) when looking for the assumptions underlying the problems, the following could be considered. The *problem* of having poor farmers disconnected from markets could be based on the presupposition that the state perhaps isolated or even abandoned this group when they stepped back due to structural adjustments. As they had created this problem they also had to create the solution, which came in the form of policies including contract farming and other agricultural interventions intended to reach the farmers facing problems created by reduced state intervention.

In contrast, I argue that the political economy perspective can add an additional problematization of contract farming. Thinking through question 1 of the WPR approach, the representation of the problem here is that contract farming is a solution used by private companies to increase accumulation and exploit farmers. However, when considering question 2, what is assumed in this problem representation is not that the farmers act with agency themselves when they enter into contracts based on the expectation that engaging in contract farming will meet certain needs of the household, and assuming that state intervention in agriculture is automatically more efficient and fairer than private initiatives.

#### *In summary*

In Phase II of the literature, contract farming was almost simultaneously lauded and critiqued as being able to address problems caused by declining state intervention, but also as an intervention where inequalities and differentiation could emerge. However, it is not clear exactly where such inequalities and differentiation take place, meaning that additional research into power and differentiation would be of value. Bargaining power is seen as important, but it is limited in that it only focuses on the relative strength of the negotiation between the contract farmers and investors. Exploring differentiation by looking at the relationships in and surrounding contract farming would help to uncover additional information about what describes and drives contract farming schemes, and how they affect an entire local population. Investors are drawn to contract farming as a way to decrease transaction costs and risk and increase access to higher-quality products. Contract farming was also, through various studies, shown to be an effective tool for farmers to increase their income and welfare, and farmers are drawn to it because of opportunities for access to inputs, markets, technologies, etc.

#### **2.3.3. Phase III: The Food crisis, Land Grabbing, and Inclusivity**

The third and current phase of contract farming's popularity has chiefly revolved around three main push-factors: a) the aftermath of the food crisis of 2003-2008 (Kaag and Zoomers, 2014) which led to the debate over land grabbing; b) another surge in efforts to make agricultural growth more inclusive and equal, further deepening contract farming's usage as a private sector development strategy (Vermeulen and Cotula, 2010; Wach, 2012); and c) a shift back to

agriculture at a policy level, building up the productivity of smallholders (Badiane and Makombe, 2015).

The food crisis of 2003-2008 was caused by restraints on food exports by food-producing nations (Nooteboom and Bakker, 2014), leading states to grow concerned about food security for their population, and states and companies were concerned about the procurement of agricultural products which were “believed to offer stable and reliable returns” (ibid., p. 171). Following and during the crisis, concerns about land grabbing emerged as these states and private investors acquired millions of hectares of land suitable for agriculture in primarily African but also Asian and Latin American countries (Kaag and Zoomers, 2014). Some argue that this was a response to the crisis, while others point out that these surging processes of large-scale land acquisitions were already underway, in for example, Kenya where it has been taking place in some form since colonization (Klopp and Lumumba, 2014, p. 54). Concerns about climate change also led to an increase in land demand in order to produce biofuels and carry out reforestation (Kaag and Zoomers, 2014).

#### *Land in contract farming*

On the issue of the importance of land, some of the literature argues that contract farming can lead to a type of indirect land acquisition (Oya, 2012; Minot, 2009; Grosh 1994). Engaging in contract farming can “result in the same advantages as large-scale farming but avoid its main drawback—namely the displacement of the current land-users” (Wendimu, 2016, p. 84). This connection, that is that contract farming fits with the current discourses regarding land tenure and the push for communities to have ownership of traditional lands, because it often avoids the issue of land ownership, has led to an increasing push for contract farming as a fair tool of agricultural commercialization by donors and governments, in particular (Oya, 2012).

Contract land in contract farming works in different ways. One is that the farmers own their land and the contract with the company does not include the transfer of land and, in this way, farmers maintain certain levels of independence from the company. Contract farming can also be organized so that the company owns the land and rents it out to farmers as part of the contract. In some cases, land is owned and managed by the government (Buch-Hansen and

Marcussen, 1982), or farmers are forced to either join contract farming or lose their land (Wendimu et al., 2016). In addition to, and perhaps more prevalent than concerns over contract farming involving dispossession of land, contract farming is often seen as a way to avoid land acquisition. Investors in large-scale agriculture do not necessarily have to acquire land in order to operate on a larger scale; instead they can contract farmers to secure crops. In this way, the title deeds and land ownership remain with the farmers and the community, but the company still has indirect access through the contract. Despite the buzz around the topic of land grabbing, few contract farming studies explicitly address how land plays a role in the larger implications of contract farming when the land ownership remains in the hands of the farmers. Contract farming can be a way to make these large-scale land acquisitions in the land grabbing debate more 'pro-poor' (Oya, 2012; Cotula et al., 2009; World Bank, 2010). The tension around land and contract farming is that, depending on the specific model or case, contract farming can either contribute to dispossession of land, or it can avoid it through keeping land possession in the hands of the smallholders.

*Continued benefits resulting from engagement with contracting*

In Phase III, there is continued evidence that contract farming can be beneficial for income and poverty. Olomola (2010) presents a case where ginger contract farmers experienced significant income increases due to engagement with contracting. Wainaina (2012) also found increased income amongst poultry contract farmers in Kenya. Wang et al. (2014) found that contracting was more successful in improving incomes for farmers in Vietnam than selling at open markets. Herrmann and Grote (2015) found that as a whole outgrowers were less likely to be in poverty than estate workers on large-scale investments in Malawi sugarcane. Sokchea and Culas (2015) found that contracted farmers in Cambodia had significantly higher incomes than their non-contracted equivalents, and they link this difference in part to being members of farmers' associations that helped with the bargaining power relationship. Scoones et al. (2017) found positive associations between contract access and household accumulation, particularly for households that were not able to sell independently. In summary, the above studies show positive changes in welfare or income due to contract farming.

In contrast, a few studies have found limitations in contract farming's ability to bring about poverty reduction. Cahyadi and Waibel (2016) found that among palm oil farmers in Indonesia, contract farming reduced some price shocks, but not all production shocks, and farmers were still left vulnerable. Olomola (2010) presents a case of soybean growing in Nigeria where the contracted soybean farmers actually had significantly lower profit margins than their non-contracting counterparts due to expensive loans that needed to be paid back. While the above studies represent an array of different results and show that contract farming does have some positive effects, more research could be done to understand additional cases, as context specificity can add to the richness of the literature (Flyvbjerg, 2006). What these studies show is that contract farming continues to have effects (both positive and negative) on income, welfare and poverty reduction.

#### *Sustained donor and aid agencies support*

In various agency and donor papers from the first decade of the 21<sup>st</sup> century, the NIE approach is still prevalent in expectations of contract farming. The World Bank World Development Report for 2008 promoted contract farming explicitly, stating “institutional innovations such as contract farming can reduce the transaction costs and risks of smallholders” (p. 237). Specifically, “Linking smallholders to processors and retailers can also create access to more financial capital through banks—and provide technology, extension, and buy-back arrangements, while monitoring food safety” (ibid., p. 237). In a 2009 report, the UNCTAD recommended contract farming for in particular, large corporations, to solve a number of issues, particularly regarding TNCs and FDI:

TNC participation in agriculture in the form of FDI and contract farming may result in the transfer of technology, standards and skills, as well as better access to credit and markets. All of these could improve the productivity of the industry – including the farming of staple foods – and the economy as a whole. (p. xviii)

The report further comments on the local impact of these investments, saying:

Governments could also promote contract farming between TNCs and local farmers in the direction of enhancing farmers' predictable income, productive capacities and

benefits from global value chains. To protect the interests of farmers, governments could develop model contracts for them to use or consider when negotiating with TNCs. (p. xviii)

Thus, again there is an interlinking of governments, aid agencies and TNCs in contract farming promotion, and these sources echo what was pointed out in Phase I regarding the role of TNCs and contract farming. Through a combination of the modernization of agriculture, global shifts and market integration issues and land issues, policies in the developing world and donors continue to highlight contract farming and its variants as viable pathways to development and poverty reduction and even consider it a major tool for smallholders and poverty reduction (Bijman, 2008; World Bank, 2007).<sup>8</sup> Again, contract farming is considered a relevant and important piece of the puzzle in agricultural development.

#### *Inclusivity of contract farming?*

Building upon the increasing awareness around land and rights, as well as the continuous promotion of the commercialization of rural agricultural sectors, some of the grey literature and accompanying NGOs and donors have raised an interest in contract farming as a type of inclusive agricultural business model (Vermeulen and Cotula, 2010; di Matteo et al., 2016). The argument is that if contract farming, as one of several agricultural business models, could be structured so that it is fair and equitable to farmers, and thus inclusive (e.g. by enabling greater management and ownership of the scheme), then some of the problems of contract farming could be solved (Vermeulen and Cotula, 2010). These ideas of inclusivity also seem to go hand in hand with businesses increasing their awareness of how they interact with local communities, and contract farming can be used to demonstrate, or as critics may argue, at least appear to advocate farmers' well-being and community development (Dorward et al., 1998; Kirk, 1987). Kirk (1987) foreshadowed this:

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<sup>8</sup> Specific African and Tanzanian policies have included contract farming: for example, Malawi, Senegal and Ethiopia have all included contract farming as part of their initiatives related to the New Alliance for Food Security and Nutrition (Action Aid, 2015). Notably, Tanzania, Mozambique and Kenya also have elements of contract farming included in their growth corridor initiatives (Felgenhauer and Wolter, 2008).

By appearing to foster smallholder agriculture and also, very often local business interests (for example through subsidiary companies), they are seen to be attuned to national aspirations and interests. Their public relations literature often propagates such representations. However, this is not simply good PR, it is also good politics, for a positive public image helps to secure government support and public acceptance and so reduces resistance to their operations. (Kirk, 1987, p. 47)

From this section, a second problematization also emerges. This is that there is an increasing global awareness of how growth and development are not equitable, so in some cases contract farming is situated as being more equitable because it can have elements attached to that can be structured as fairer, particularly if it contains elements of what can be deemed inclusive.

Considerations of inclusivity also resonate with the debates on whether or not and how contract farming causes differentiation. More recent studies have taken up differentiation as it is marked as an important gap in current understandings of the effects of contract farming (Sachikonye, 2016). A study by Pérez Niño (2016) on tobacco contract farming in Mozambique focuses on differentiation by looking at the class formations caused by contract farming, specifically trying to show how contract farming can produce three distinct socio-economic classes of producers. Vicol (2019) shows how only some groups of contract farmers had the livelihood assets necessary to gain material benefits from contract farming in India, showing how differentiation within the groups of contract farmers matters. Sachikonye (2016) points out that differentiation remains an under-researched area of contract farming.

#### *Productivity, inputs and services*

Another important aspect of contract farming is its ability to influence the productivity of cultivation, particularly in light of the renewed focus on increasing productivity in agriculture reflected by policy shifts (Badiane and Makombe, 2015). Productivity changes are linked to understanding agricultural transformation (Hillbom and Svensson, 2013). The value in particular in literature that looks at productivity related to contract farming is that productivity increases can perhaps also indicate changes that might lead to shifts in agricultural transformation (Hillbom and Svensson, 2013).



Studies which investigate productivity in contract farming include those that focus on specific aspects such as efficiency and yield impacts. Efficiency can increase through the addition of agricultural inputs as well as through learning and technical knowledge transfers, etc. One type of increase in productivity can be found in improvements in technical efficiency. Saigenji and Zeller (2009) found that contract farming increased the technical efficiency of tea farming in Vietnam. Recently, Mishra et al. (2018) showed how technical efficiency improved for rice and ginger contract farmers in Nepal and how contract farming is attractive in these areas of Nepal because of these improvements, which they argue can be further improved through infrastructure and additional market access improvements. Mishra et al. point out the lack of studies focusing on how contract farming can improve technical efficiency, which in turn gives rise to productivity increases, particularly in the Global South. Begum et al. (2012) show that poultry farmers in Bangladesh gained technical knowledge through contracting, which allowed them to become more efficient in their resource usage. Nakano et al. (2014) studied rice in Tanzania and found that the training programs provided by the investor in the contract farming scheme led to significant yield increases amongst farmers. Olomola (2010), in a survey of contract farming cases in Nigeria, showed that cotton contracting farmers increased their production through the scheme.

Winters et al. (2005) also showed how farmers gained more access to knowledge about improving crop production and gained expertise in growing that particular crop, and that contract farming helped with overall production gains. After a fairly recent implementation of contract farming in rice in Laos, Goto and Douangngeune (2017) showed that contract farming engagement had a significant impact on yields as well as on profits. Laos is therefore a good example of a country that has recently started to encourage contract farming because of the promises of significant changes offered by contract farming where the assistance provided by institutions is lacking.

When considering the broader implications of productivity effects, it is important to think of them in light of the global restructuring of agriculture that has been taking place over the last century. This restructuring has involved steadily increasing overall modernization, whereby

contract farming has become “an essential link between corporate business and farmers” (Sivramkrishna and Jyotishi, 2008, p. 280). Additionally, Barrett et al. (2012) writes: “The modernization of agricultural value chains—the systems of agreements, arrangements, and contracts that link farmers to consumers of food, typically through one or more intermediaries—is both a consequence and cause of economic development” (p. 715). Contract farming’s beneficial effect on productivity is important for its potential as an effective agricultural development-oriented intervention.

#### *Applying the WPR Approach to Phase III*

What is the problem represented to be in Phase III? The problem is that demand for agricultural investment and development is increasing; contract farming can at least partly solve this problem in two ways: a) by avoiding land dispossession and creating opportunities for smallholders to stay on their land and participate in the commercialization of agriculture and b) by contributing to agricultural or even “inclusive” development by promoting productivity increases. Thus, contract farming can be seen as a win-win situation in terms of land: investors can gain access to land without dispossessing farmers, and farmers can maintain their access to land. This echoes the problematization seen in Phase I, where a shift away from plantations started to occur, and discourses around land ownership continue to emerge today. In terms of question two, “What presuppositions or assumptions underpin this representation of the problem?” (Bacchi, 2012b, p. 21), the assumption behind the problem is that agricultural investment (particularly large-scale) is desirable and is necessary for the commercialization of the agricultural sector.

#### *In summary*

This phase shows the deep-seated importance of land and land tenure in contract farming, bound up with the increasing push for contract farming as a rural development tool to, among other things, spur productivity, advocated by NGOs, policies, and international organizations. At the same time, concerns over equity and increasing differentiation have also increased – and contract farming is seen as a potential way to combat them. Equity and differentiation potentially affect power in contract farming in two ways: a) focusing on “inclusivity” expresses a desire to see how contract farming can be implemented in a way that creates more equality

between the contract farmers and the investors, thus changing the dynamic of power between the two groups of actors; and b) contract farming creates power dynamics between the contract farmers, the investors (as illustrated in struggles over land), and the excluded population. While not explicit, inclusivity is about relationships; this phase brings out the importance of land, which can characterize the relationships between investors and contract farmers in negative or positive ways.

## 2.4 Methodological Concerns Due to Heterogeneity

If anything can be agreed upon regarding the nature of contract farming, it is that it is extremely heterogeneous in form and practice. The context of each instance of contract farming is considered enormously important to its success and failure, and likewise, the variances in methodological approaches in the literature can lead to a variety of understandings of contract farming. Some important factors include: the terms of the contract, the geographical context, the socio-political context, who the farmers are, what crop is being grown (its position in a value chain may be subject to global price swings and movements), who the company is, how often and how much it rains, etc. Naturally then, the type of methodology used to observe contract farming is important and should be adapted to each individual case. This makes the literature itself difficult to comprehend (Oya, 2012). A disparity emerges in the methodology due to differing approaches of the NIE perspective and the political economists' perspectives. The former looks at contract farming "through the lens of contract theory, economic bargaining within a framework of methodological individualism, and political economists who look at CF more systemically and from a historical perspective" (ibid., p. 5). These perspectives highlight different approaches to methodologically studying contract farming depending on which viewpoint the scholars take.

This divergence in approaches to studying contract farming might point to a need to look at aspects of contract farming other than pure cost/benefit. The reality based on the empirical studies is that contract farming can be good for farmers and companies alike, but the circumstances under which it can be successful are not conclusive. As Singh (2002) notes, examining individual cases often allows for a focus on all the factors that can influence the

outcomes of contract farming. Likewise, Little (1994, p. 218) states, “I suggest that the diversity of contract farming is so great that it is better to focus on the motives and power relationships of contracting parties than on the generic institution”. I agree with Singh and Little that it is important to look at the broader context of the case and relationships, which I build upon in the analytical framework.

Another reason to look at the broader understanding of relationships and cases is that often, within contract farming studies, a long-term analysis is missing. Many of the studies that show short-term welfare impacts do not necessarily show long-term impacts on welfare. There is a need for more studies that study the effects of contract farming in terms of larger community developments and agricultural developments, which can arguably be another purpose in looking more at relationships and power in contract farming, since long term analysis is more difficult. By characterizing relationships and power in contract farming, such a framework could then be applied to other contract farming studies, both past and future, and help to confirm broader understandings of what drives contract farming schemes and how relationships are characterized.

## 2.5 Research Gaps and Focus of the Dissertation

This section goes into further detail regarding bargaining power and relationships in contract farming literature and highlights the gaps in these two conceptualizations.

### *How bargaining power is understood in the contract farming literature*

As shown in this chapter, under Phase II, many scholars (Sokchea and Culas, 2015; Glover, 1990; Glover and Kusterer, 1990; Barrett et al., 2012; Warning and Key, 2002; Bolwig et al., 2009) agree that bargaining power is an important aspect of understanding why and to what extent actors get a satisfactory deal out of the contract. However, there are gaps in the literature in that contract farming scholars’ use of bargaining power has limited the conceptualization of power in contract farming. There is a lack of a clear understanding of what is understood as bargaining power and how bargaining power is defined in the contract farming literature; and how the concept adds value to the analysis of contract farming.

Bargaining power as a concept is peppered throughout discussions of contract farming literature, but consensus on its purpose and use is not present. Scholars apply it in different ways and there is some disagreement about what can “strengthen” bargaining power. Key and Runsten (1999) apply it through principal agent theory: they define this application in the following way:

In the principal agent game, the principal, in this case the firm, defines the terms of the contract anticipating how the agent, in this case the farmer, will respond to each strategy it proposes. The firm has imperfect information about the grower’s behavior because production is costly to monitor, and output has a random component. The firm does not observe with certainty whether low yields resulted from bad luck (e.g. weather, pests), poor management, or from a contract violation by the grower. The firm maximizes profits subject to two constraints: that the grower will accept the contract – it must give him greater profits than he can derive from his next best alternative, and that the grower will abide by the terms of the contract. (ibid., p. 389)

This application is important because it helps to explain how bargaining power can be applied specifically to contract farming, since there are elements within contract farming that are not necessarily present when discussing bargaining power on a more general level in labor negotiations. These elements include ones specific to agriculture and the nature of contract farming; for example, not being able to monitor production closely and the unpredictability associated with primary agricultural production due to weather.

#### *Determinants of bargaining power in the contract farming literature*

The ability of the contract farmer to have significant enough bargaining power to influence the outcome of the contract has been mentioned in the literature as being determined by the following elements:

- 1) Ability to organize and collectively bargain for a better contract (Barrett et al., 2012; Glover and Kusterer, 1990)

2) The availability of other opportunities for income and employment outside the scheme, as well as a diversity in livelihoods and agricultural production (Bijman, 2008; Key and Runsten, 1999; Porter and Phillips-Howard, 1997)

3) Land ownership of land that the investor wants to utilize (Porter and Phillips-Howard, 1997)

4) Lack of enough other producers for the company to source from (Key and Runsten, 1999).

Thus, collective bargaining, resources, and other opportunities are key to determining the bargaining power of the contract farmers.

Conversely, the ability of the investor to have more bargaining strength is based on:

1) Few outside opportunities for contract farmers to sell their crops, lack of well-functioning markets, i.e. a monopsony

2) Limited access to inputs, credits, and services for contract farmers

3) Land ownership, either forcing the farmers to engage in contract farming (Wendimu et al., 2016), or where the investor also sources from their own land and is therefore primarily concerned with getting their own crops to processing (Sulle, 2017b).

Thus, an investor or firm has more bargaining power if it is a monopsony and owns or leases land that the farmers must live on, in addition to access to necessary inputs.

Expanding upon point 1 under the investor's possible sources of bargaining power, in some cases, the investor is the only option for local farmers to sell their crop, and a one-buyer system is called a monopsony. This has also been explored in the literature, and as mentioned in the literature review, Sivramkrishna and Jyotishi (2008) are quite critical of situations where there is a monopsony, arguing that it is actually much more harmful to farmers than can be "evened out" by increasing the bargaining power of the farmers through measures such as becoming part of an organization to collectively bargain for the contract. However, as mentioned previously, collective bargaining and association membership are hailed as being essential to better contracts for farmers (Barrett et al., 2012; Glover and Kusterer, 1990). Concerning monopsony, some scholars even argue that some level of monopsony is necessary in order to

have a contract that farmers do not easily leave (Baumann, 2000); i.e. it actually levels bargaining power between the two groups of actors. This discord points out that there is still work to be done in understanding bargaining power, and scholars are split in terms of their understanding of how it matters and what implications it has for the contract farming scheme itself. Scholars list factors that increase or weaken bargaining power, but a systemization of which factors are most influential has not been done, and furthermore, the focus lies greatly on the formal relationship formed by the contract itself. Specifically, bargaining power is largely focused on the negotiation as the center for analysis, what can be done to or what does each party bring with them that might push the contract's negotiation one way or another. In other words, bargaining power is primarily discussed as what can be brought to the negotiation table. The conceptualization of bargaining power does not yet have a component that deals with how power is taking place outside this formal place of negotiation and how power changes over time or how it responds to conflict. For example, what other, less obvious, types or forms of power might each group of actors bring with them to the negotiating table? Furthermore, power dynamics outside the formal contract farmer-investor relationship may also influence how the contract is negotiated; for example, how the excluded local population interacts with the contract farming scheme. I argue that these questions that are left unexplored by bargaining power suggest a need for a broader conceptualization of power in contract farming, which is what I present in Chapter 3.

#### *Relational understandings in contract farming*

Broader conceptualizations of power beyond formal negotiation are connected to how relations function among the actors in the contract farming schemes because bargaining power describes how power is distributed between two or more sets of actors that are in relation to each other, through the contract itself. The relationships formed by and within contract farming schemes are not extensively discussed in contract farming literature. The literature that does mention relationships focuses on the relationships among three main groups of stakeholders as central to contract farming schemes; i.e. the relationships between the state, agribusiness and smallholders (Oya, 2012; Currie and Ray, 1987; Ochieng 2005), and not local-level relationships. More broadly, Scoones et al. (2017, p. 23) highlight a gap when they suggest, "there has been

less analysis on the implications of new relations created by contract farming in outgrower arrangements and the adoption of contracted crops more broadly, for agrarian transition". These studies focus more on relations in terms of broader implications, and according to the Scoones article, on how contract farming affects agricultural transformation. However, contract farming, I argue, is in essence about relationships, as it is only through relationships that it can even take place. I argue that it is important to draw out how relationships are enacted in contract farming at the local level where the scheme is taking place, as this can reveal motivations and benefits of contract farming beyond what the literature has often focused on.

Having a framework for understanding the key relationships in contract farming provides a frame for discussing and analyzing power as well, which will connect to the gap addressed on bargaining power. As discussed, particularly in Phase II, contract farming can contribute to a variety of benefits for both contract farmers and investors, through increased income, welfare, better access to high quality product, and so forth, but these exchanges (positive or negative) are not framed within an understanding of how to characterize relationships. I suggest, through the development of a relational framework in Chapter 3, that identifying the exchanges and outcomes among the different groups of actors in contract farming allows for characterization of these relationships. Furthermore, I propose looking at relationships beyond just those between the contract farmers and investors so as to include the entire local population. The excluded local population within the same communities as the schemes is not removed from the influence of the contract farming scheme; rather they are intertwined with it and also have influence, albeit sometimes minimal, on the scheme. Discussion in the literature on the excluded local population centers on highlighting that in some cases social and economic differentiation does occur, but the excluded local population are often seen as recipients of the contract farming scheme's effects, rather than an engaged group of actors. I contend that including the excluded local population purposefully into a relational analytical framework also allows for differentiation in the context of these relationships. Thus, the analytical framework I propose looks at the relationships that involve the excluded members of the local population.



## 2.6 In Conclusion

Much of the available literature on contract farming usually falls along the lines of one of two theoretical approaches to contract farming; that of New Institutional Economists vs. political economists. The NIE approach argues that contract farming can provide substantial benefits to both farmers and companies alike, such as technical capacity increases, wealth and income increases, increases in access to high quality product, and opportunities to upgrade various value chains, etc. Proponents argue that since there are benefits on both sides of the table, so to speak, it is a win-win situation for all involved. However, this is not always the case, and the political economy approach often points out that farmers can easily be put in an exploitative position by the companies if the contract is unequal. I place my own work somewhere in the middle of the NIE and political economy approaches, as both add important value to a nuanced understanding of contract farming, but my view is not that contract farming should be seen as positive or negative. Rather the question should turn to what is left unexplored and how can we push for the best practice and outcomes of contract farming schemes?

Further, those farmers who are excluded from the contract can be marginalized, creating social differentiation within communities, and poorer farmers can be excluded from the contracts. However, each group of stakeholders still has a significant level of interest in adopting contract farming as its potential is still seen as promising. For smallholders, it often holds the appeal of potential wealth and productivity increases. For governments and policy makers, it holds the potential for poverty reduction and agricultural development. For private investors, it carries opportunities for increased quality of product as well as indirect access to land. The varied but sustained interests of the different actor groups in engaging with contract farming are also indicative of a continued interest in participating in contract farming, thus underscoring the need to uncover more about how contract farming schemes work in practice. I argue that there is only ambiguous postulation of how relationships are viewed in contract farming and it excludes the local population entirely.

In terms of addressing literature gaps, there are gaps surrounding bargaining power and relationships in studies of contract farming, and I address both in this dissertation's analytical

framework. There is also an opportunity to empirically show more concretely the exchanges between actors involved in contract farming, going beyond a focus on welfare impacts alone. Addressing these gaps will enrich the contract farming literature through detailed case studies that will add nuanced understanding to transactions in contract farming and the power relationships at play.



# Chapter 3: Analytical Framework for Key Relationships and Power in Contract Farming

## 3.1 Introduction

This chapter describes and develops the framework that will be used to explore the relationship between the key actors and power in contract farming. The literature review clearly underscored two research gaps regarding how to understand power and what characterizes the relations between the different actors in contract farming. This chapter picks up with these gaps by discussing first how we can understand and analyze the relations between the different actors and then how power can be understood in contract farming. I argue that bargaining power as an analytical concept, while beneficial in describing the relative strengths and weaknesses in contract farming, does not fully explore power manifested beyond the act of negotiation and it does not include the actors outside the main contract farmer-investor relationships, specifically the excluded local population.

I argue that there is only vague theorization of how relationships are viewed in contract farming and the excluded local population in particular is overlooked. To close the gap regarding the relationships between the key actors, I adapt an analytical model initially developed by Buur et al. (2017; 2019), focusing on large-scale natural resource investments, and then I propose a more conducive reconceptualization that studies contract farming relations at the local level. To address power, I start with concepts identified in the contract farming literature related to *bargaining power* and then add the concept of *holding power* developed by Khan (2010) in order to explore and propose ways of viewing power in contract farming. Developing these two analytical tools, (which will be applied in Chapters 6, 7, and 8) will allow me to answer the overall research question and more specific working questions (presented in Chapter 1) regarding what and how contract farming cases in the sugar and rice sectors can be characterized and how this relates to differentiation and power.

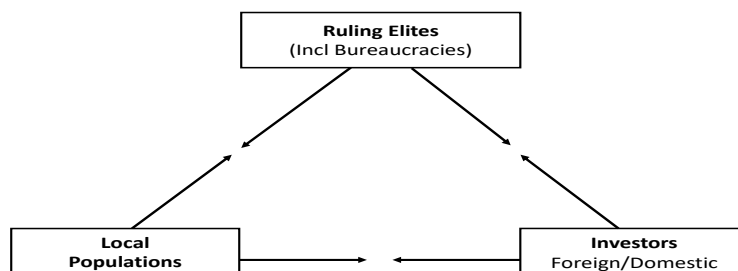
## 3.2 Building a Relational Conceptual Framework

By starting with the analytical framework developed by Buur et al. (2017) for large-scale investments in natural resources (which my cases, in part, fit well), I aim to develop a perspective that allows us to analyze the exchange relations between the main actors in contract farming. Buur et al. (2017: p5-6) focused on three exchange relations – those between investors and ruling elites, investors and local populations, and ruling elites and local populations. In contrast, I will primarily focus on one key relationship—between investors and the local population—and will specifically examine the concrete exchanges between the actors and what characterizes this key relationship in contract farming schemes.

### 3.2.1. The Triangular Model of Relations in Large-scale Investments

Buur et al.'s (2017, 2019) framework considers three relationships that form when large-scale natural resource investments are implemented. This triangular model, shown in Figure 3.1 below, is designed to analyze the concrete exchange relations among three key actors in natural resource investments: local populations, investors, and ruling elites. They demonstrate that each of these three relationships matters and that the nature of these relationships creates possibilities for different investment outcomes, both positive and negative.

**Figure 3.1 Model of the key relationships and their characteristics**



Source: Buur et al. (2019) based on the newest version of the evolving model first developed in Buur et al. 2017, p. 6.

The model is structured so that all three relationships are visualized with arrows indicating points of interaction, tension, and exchange. By organizing the analysis of large-scale investments in natural resources in this manner, this dynamic model offers spaces to explore

and reveal where there is tension and/or cohesion among the parties. Understanding the motivations and interests underpinning the three relations is necessary for understanding both why actors engage in exchange relations and where they find common ground.

#### *Relationship between investors and local populations*

The relationship between investors and local populations is often conflictual but can also be characterized by some degree of common understanding and trust. The investor's main interests in engaging with local populations often lie in the need to access land and resources. The common interests depicted by Buur et al. (2017, 2019) match those of investors in contract farming and are some of the key motivations for investors to engage in contract farming schemes, such as that contracting secures access to higher-quality crops, and indirectly, to land. Furthermore, one of the local population's main interests in these negotiations is also land because of its importance as a household asset that helps sustain livelihoods. Land dispossession can lead to serious problems and conflicts for the local population (Edelman et al., 2013; Wolford et al., 2013; White et al., 2012). While some contract farming arrangements allow farmers to maintain their access to and/or ownership of land, other contract farming schemes are compulsory in that the alternative would be to lose access to cultivable land (Wendimu et al., 2016). Thus, land is a central interest in this relationship. Another area that matters to local populations is labor, in that large-scale investments are often limited in the number of formal jobs they create, thus limiting the local population's employment opportunities and engagement. This attention to labor opportunities highlights how the local population can be interested in the investment's impact on the local community (e.g., through local linkages and local content) (Buur et al., 2017; Hansen et al., 2016). In this way, contract farming differs from other types of large-scale investments in that often many more households can be engaged with contract farming than with direct employment.

#### *Relationship between ruling elites and investors*

It is important to consider the relationship between the investors and the ruling elites in the triangular relations proposed by Buur et al. (2017, 2019). Large-scale investments in natural resources or extractive industries are often said to be coupled with corruption due to

agreements between the investors and ruling elites (Karl, 1999; Ross, 2015). The ruling elites have the power to enact policy that can either favor local populations or investors *or* continue building support and maintaining power for ruling elites, as is discussed in the political settlements approach to studying ruling elites (Whitfield and Buur, 2014; Khan, 2010). If investors' support proves advantageous for maintaining the ruling elites' political power, then these elites may favor investors when enacting policy. Whether the investors are domestic or foreign may also play an important role or, perhaps more importantly, what type of connections to ruling elites the investors have. If the ruling elites approve a large-scale investment, such as a large contract farming scheme, the relationship between the investors and the ruling elites may supersede the local population's needs. While this relationship is not this study's primary focus, it can play a role in the investment's impact on the local population in the case of major conflicts.

#### *Relationship between ruling elites and local populations*

The third relationship is between the ruling elites and the local population, which as Buur et al. (2019) argue, is an underdeveloped relationship in much of the literature on land grab, political settlement approach and resource curse. This relationship encompasses the issue of land grabbing because conflicts have arisen around dispossession of land, revealing the elites' role in this process (Buur et al., 2019; Wolford et al., 2013; Hall et al., 2015; Edelman et al., 2018). Also, ruling elites may act in a certain way to maintain votes and as part of campaigning, as noted by political settlement scholars (Whitfield et al., 2015; Behuria et al., 2017). As well as influencing the relationship between local populations and investors, the ruling elites can also determine whether investments occur (Buur et al., 2017, 2019). The land aspect of this relationship, wherein the ruling elites give investors access to land that may be contested, is relevant to this dissertation for two reasons. First, many contract farming investments, including three out of the four cases here, involve large land acquisitions by investors, as well as the related tensions and conflicts. Secondly, contract farming is sometimes promoted as a solution to issues related to land exacerbated by concerns over land grabbing because contract farming, in contrast to plantations, can remove the land dispossession factor, depending on the case (Wendimu et al.,

2016; Oya, 2012). This relationship is important in contract farming, however, since this dissertation recognizes the role of the state and ruling elites but does not focus on it, this will not be one of the key components in the model developed for this dissertation.

### 3.3 Developing a Local-level Investment Relational Triangle

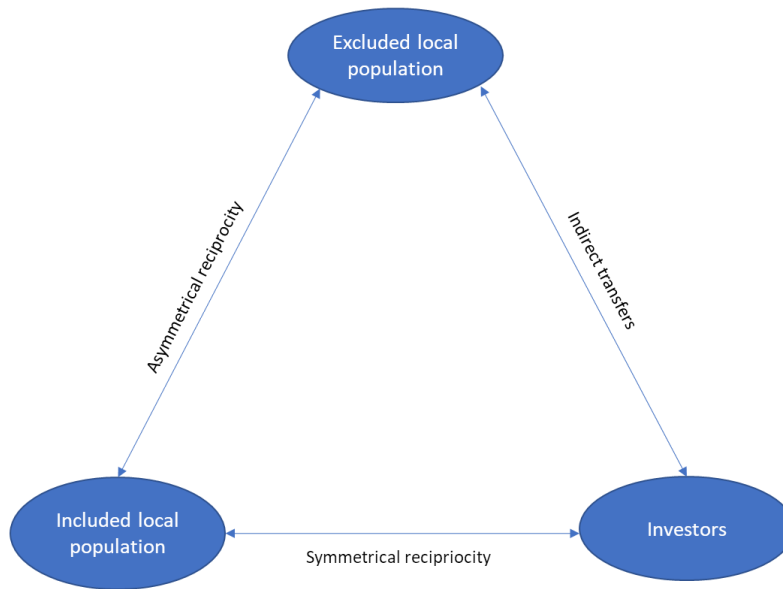
I found the above framework by Buur et al. (2017, 2019) helpful when mapping and analyzing the different stakeholders involved in contract farming discussed in this dissertation. However, I was drawn to focusing on one relationship in particular, that of local populations and investors. This does not mean that the other relationships are not important; in this study, however, I will be conceptually expanding the local populations-investor relationship. I focus on this level because this is where the contract farming scheme actually takes place. I also wish to address the gap regarding local-level relationships in the scholarly discussions of contract farming, which have primarily focused on connections between the state, agribusiness and contract farmers (Oya, 2012; Currie and Ray, 1987; Ochieng, 2005). Thus, this framework's development has been driven by both an empirical context and the theoretical gaps identified in the literature review. This framework is designed to analyze what characterizes the key relationships in contract farming. This approach also addresses what certain actors gain by entering into the relationship and the concurrent processes of differentiation that seemingly characterize contract farming, thus offering a framework for discussing power in contract farming (discussed in Section 3.3). This framework's goal is to uncover what drives contract farming relationships by analyzing different relationships through three types of characterizations. This framework has the potential to be adaptable to other types of large-scale natural resource investments where there is a significant relationship between at least part of the local population and the investor. In terms of ruling elites and the state, I recognize that it plays an important role in investments and the implications on a local level. However, I have chosen not to include them as a main stakeholder in this analytical framework because it removes focus from the local level interactions between the investors and local populations, which are the primary actors of interest in this dissertation.



At the local level in contract farming schemes, the relationship between investors and local populations is of great importance because it is where the investment takes place. This relationship can be further divided into relations between (a) investors and included members of the local population involved in contract farming and (b) investors and excluded members of contract farming schemes. The *included local population* members are those who are engaged formally and directly with the investor, in these cases through contract farming. The *excluded local population* refers to those who are not formally engaged with the investor but who live in the same geographic area as the included local population and the investment and are, thus, subject to spillover effects. The word *excluded* is used intentionally because it clearly differentiates between those who have the opportunity to develop a direct relationship and those who do not. It also comprises those who chose not to engage in contract farming due to risks associated with contract farming. Thus, it does include voluntary non-participants. The third actor is the *investors*, those who have invested in the large-scale agricultural contract farming scheme or investment; this dissertation focuses on contract farming in rice and sugar. My model involves the relationship between (a) the investor and the included local population, (b) the excluded population and the included population, and (c) the excluded population and the investor. Each relationship can be characterized in different ways; thus, different terms are used to describe the characterizations, as shown in Figure 3.2.

**Figure 3.2: The relational model for local-level investments in contract farming**

The local level investment relational triangle



Source: own model inspired by Buur et al, (2017, p6)

Figure 3.2 presents the model with the spaces between the three groups of actors (i.e., investors, included local population, and excluded local population) being where each relationship's characterization is defined. I have proposed three terms that characterize each of the relationships: *symmetrical reciprocity*, *asymmetrical reciprocity*, and *indirect transfers*, described in the following sections in terms of how they in my reading can relate to contract farming.

### 3.3.1. Relationship 1: Investors and the Included Local Population

In the relationship depicted at the bottom of the triangle in Figure 3.2, the core of contract farming schemes occurs. This relationship is defined as a *formal relationship* in which exchanges are made. In the contract farming scheme, *exchanges* are the physical, financial, or other concrete (i.e., tangible) exchanges in the relationship. For example, farmers receive inputs and income; in exchange, they deliver crops to the investor or allow the investor to use part of their land for production. The concept of *exchanges* is related to anthropological literature about exchange relations (Mauss, 2002), taking the approach of seeing exchanges between actors in

contract farming as something concrete that passes hands in the relationships where the exchanges constitute and make concrete the relationships. However, when some of the exchanges begin to cease or change, the relationship will change and can even break down.

Contract farming literature often focuses on what happens between the participating farmers and the contracting company, how the two sides can benefit, and if the farmers can gain from being part of the scheme (Bijman, 2008; Grosh, 1994; Oya, 2012; Minot, 2009; Kirsten and Sartorius, 2002; Masakure and Henson, 2005; Eaton and Shepard, 2001). The contracting relationship can involve many exchanges, including access to inputs and credits, higher quality product in terms of new varieties of seeds, help with harvesting and transport—all in exchange for direct or indirect access to land, crops, and the investor's acceptance. Within this relationship, there can also be a meta-relationship between the investors and farmers' organizations. Since contract farming schemes are often formalized between the investors and farmers' organizations or associations related to land and irrigation,<sup>9</sup> additional relationships can occur at the level between farmers' organizations and investors, as well as between farmer and farmers' organizations, and even indirectly among farmers' organizations. There are also concrete exchanges, similar to the ones listed above, between farmers and their organizations. To find analytical terms for characterizing these contract farming relationships, I have drawn on Sahlins' (1972) work on *reciprocity*. Reciprocity can under certain conditions be useful for describing the exchanges in contract farming investments. According to Sahlins (1972), "Reciprocity is a between relation. It does not dissolve the separate parties within a higher unity, but on the contrary, in correlating their opposition, perpetuates it" (p. 154). Furthermore, Sahlins separates reciprocity into different types of transactions: *generalized*, *balanced*, and *negative reciprocity*. *Generalized reciprocity* describes benevolent exchanges, which are based on altruistic intentions. According to Sahlins (1972), "*Balanced reciprocity* refers to direct exchange. In precise balance, the reciprocation is the customary equivalent of the thing received and is without delay" (p. 176). This form of reciprocity addresses more economic transactions and refers to transactions well bounded by time restraints and well-defined

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<sup>9</sup> Discussed in Chapter 2.

material exchanges. Finally, *negative reciprocity* is “the attempt to get something for nothing with impunity, the several forms of appropriation, transactions opened and conducted toward net utilitarian advantage” (p. 177). In introducing these terms, Sahlins illustrates how *reciprocity* is a flexible term and can be used to describe several transactional situations. This terminology fits my purpose as I need to identify what characterizes the relationship between contract farmers (the included local population) and investors. Based on my literature review and my empirical material, this relationship can often be characterized by *symmetrical reciprocity*, in that each side gains something different by participating in contract farming while a certain balance in the relationship is maintained. The relationship’s degree of equality may be questioned because contract farming schemes are indeed often unequal (Sivramkrishna and Jyotishi, 2008; Barrett, 2012; Korovkin, 1992); however, the exchange is equal enough to be categorized as symmetrical reciprocity since there is sufficient symmetry to ensure that the exchange and contract remain in place.

Characterizing contract farming relationships as having symmetrical reciprocity is important because it reveals what drives the contract farming scheme. Where there is symmetrical reciprocity, I suggest the relations between the contract farmers and the investors continue, whether or not they are perfectly equal. As a result of exchanges in the symmetrical reciprocal relationship, the included local population benefits in some way or are considered ‘sufficiently’ acceptable. For example, a farmer receives more inputs from the investor, in turn increasing production of raw produce, which in turn gives the farmer more to sell, potentially increasing her income. Other outcomes can include investment in increased agricultural productivity by gaining access to new varieties of seeds, increased food security by increasing the household’s basic income, or spillover effects related to better well-being. In cases where contract farming schemes are not characterized as having symmetrical reciprocity, contract farmers no longer see the contract’s benefits as outweighing the cost; thus, the contract farming scheme may start to break down. Negative consequences of contract farming can also be related to the loss of symmetrical reciprocity, including increased tensions between farmers, decreased food security, or overuse of land.

### 3.3.2. Relationship 2: Between Different Local Population Groups

The second relationship depicted in Figure 3.2 exists within the local population. This relationship is also characterized by exchanges, but they happen more infrequently and are often more informal. For example, the included local population in contract farming schemes often hires parts of the excluded local population for casual labor in the contract farming fields, but this exchange is usually neither formal nor reliable in the cases analyzed in this study. While the contract farmer might enjoy a more formal, even long-term contract with the investor, the excluded local population cannot rely on the continued provision of casual labor jobs. In some cases, product (sugarcane, rice, etc.) is side sold to the contract farmer, who then sells it under contract with the company. There can also be more vague implications of contract farming for the local population, perhaps in the form of community developments due to investment by the investor or even groups of contract farmers. More indirect consequences include increased cost of living at the village level due to higher demand for food products or increased demand for land and other resources. Thus, I use the term *asymmetrical reciprocity* to characterize this relationship. The relationship is not adverse enough to use Sahlins' (1972) term *negative reciprocity* because there is still some beneficial exchange taking place, but it is far from the more balanced reciprocity often seen between contract farmers and investors. The contract farmer who is simultaneously engaged in a symmetrical reciprocity relationship with an investor often has the advantage in the relationship with the excluded local population because this contract farmer possesses a formal contract. The term *asymmetrical* also indicates how tensions can be created within the local population. This characterization matters because in contract farming schemes where reciprocity is asymmetrical, the scheme has spillover effects and has a larger impact on the local population, indicating to some degree that the scheme is embedded within the local community.

### 3.3.3. Relationship 3: Investors and the Excluded Local Population

The relationship between the investors and the excluded local population is important because contract farming investments do not exist in a vacuum. The investment has important implications for the entire population, as noted by Buur et al. (2017, 2019). This relationship is characterized by a lack of direct exchanges; however, with the investor present in the local

community, indirect transfers can happen. These transfers include casual jobs opening up due to the contract farming investment; community development done by the investor; and conflicts, such as tensions over water usage. The term *indirect* is used because there is no agreement, either formally or informally, between the two groups of actors. The term *transfers* is used because something can be transferred from one actor to another without the receiving actor giving anything in return. In contrast, *exchanges* indicate a movement to one place with a counter movement. Understanding the local community-investor relationship is viewed similarly through the social license to operate (SLO) concept from mining extraction literature. Having a social license to operate (SLO) from mining extraction is about investors gaining acceptance in the local community in order to be considered successful and conscientious (Prno, 2013; Prno and Slocombe, 2012). Always present, indirect transfers can be either positive or negative. Negative indirect transfers in contract farming schemes can include increased tensions over land and resources, as well as use of infrastructure (e.g., roads, storage facilities, etc.) maintained or provided by investors. Positive indirect transfers can include the construction of schools and health facilities or infrastructure improvements, all of which support the local population.

This relationship matters because if the excluded local population and the investors do not experience some positive indirect transfers, there is potential for conflict and tensions (i.e., negative externalities). Negative indirect transfers can potentially threaten the contract farming scheme—i.e., if the relationship between the investor and excluded local population becomes extremely strained, the scheme could start to break down. These tensions, as well as more open conflict, are present in all the cases. Whether the relationship between the investors and the excluded local population is characterized as having mostly positive or negative indirect transfers may determine the overall contract farming scheme’s durability.

#### 3.3.4. Access and Differentiation

While not directly related to the model, in examining the relationships in the model, *How do farmers initially gain access to the contract farming schemes?* Is important. Why members of the local population do or do not gain access is important in understanding why there are two

different groups of the local population. It is also important because differentiation is a highly debated outcome of contract farming (Oya, 2012; Little, 1994; Bijman, 2008). Farmers can join contract farming schemes in several ways: (a) meeting formal criteria for the contract, (b) meeting informal criteria for the contract, (c) indicating interest in entering the scheme due to potential benefits, and (d) having relations or networks that lead to opportunities to join.

*Formal criteria* can vary, but they can include a minimum land requirement as well as access to credit, inputs, or loans. There can also be *informal criteria*; even if they are not required to enter the contract, participation in some schemes may require farmers to have enough land and capital to start growing the crop the investor is seeking. Farmers may also join based on interest in the scheme and their willingness to take risks to gain the potential opportunities (Barrett, 2012; Guo et al., 2005; Kirsten and Sartorius, 2002). On the other hand, they may not want to join because they do not see the risks as being ones they can take. Finally, joining the scheme may also be limited or enabled by a farmer's knowledge of and social relations to the investor (e.g., preference may be given to those who have connections to the investor). In addition, investors can differentiate and exclude among the group of farmers. As seen in Chapter 2, investors sometimes target larger farmers in order to lower transaction costs by dealing with fewer, often more experienced farmers (Key and Runsten, 1999; Bijman, 2008).

To clarify, while the focus is on these relationships and stakeholders, contract farming investments do not occur in a vacuum; other spheres of influence and stakeholders can affect contract farming. Such influences include natural disasters, flooding, drought, and disease; the ruling elites' actions or changes in the country's political make-up; and international influences, such as changes in global value chains of certain agro-products or changes in global demand or in the supply of the crops grown in the contract farming scheme.

By focusing on the local level, the model helps filter out some of these influences in order to focus on the primary relations and what the key actors exchange. The model's first function is to map out relationships in contract farming by identifying exchanges and outcomes, allowing for the empirical case material's organization and comparison in subsequent chapters. The second function is to argue analytically regarding what characterizes these relations by using

the terms noted in the model and discussed above. This model clarifies why some farmers gain and others do not, why local populations in contract farming investments are not always winners, and why social differentiation occurs or is exacerbated by contract farming. Furthermore, by exploring relationships, this model also identifies the roles power can play in relationships as well as the characteristics and outcomes of contract farming. The next section explores power as part of understanding the *why* behind the characterizations and outcomes of contract farming.

### 3.4 Power: From Bargaining to Holding Power

In this section, I develop an analytical tool for contract farming regarding power, which is an important explanatory factor behind how the relationships are characterized and what the outcomes are. Picking up where Chapter 2 left with identifying a gap regarding how bargaining power was conceptualized, I will unpack the concept of bargaining power before proposing the use of *holding power* (Khan, 2010, p. 6) in contract farming theorization. As noted in the literature review, scholars have identified factors that increase or weaken bargaining power (Barrett et al., 2012; Glover and Kusterer, 1990; Bijman, 2008; Key and Runsten, 1997; Porter and Phillips-Howard, 1997; Wendimu, 2016; Sulle, 2017b); however, these scholars view bargaining power as relatively static and do not explicitly discuss how power is dynamic in contract farming and how it relates to the actors outside the direct contract farmer-investor relationship.

#### 3.4.1. Bargaining Power

Unpacking the term *bargaining power* is essential to understanding the basis for building upon its analytical implications. The concept is used in a wide variety of areas, including game theory, labor economics, collective bargaining arrangements, and negotiation in general. From the perspective of business studies and labor market economics, *bargaining power* is defined as “the relative strength of each side in a negotiation or a dispute” (Blanchard, 2001, p. 1). The bargaining power of a worker is dependent on his/her replaceability and the availability of other jobs. Thus, bargaining power is typically lower when unskilled labor is involved and when unemployment is high in the surrounding labor market, meaning that workers must stay in their



current job (Blanchard, 2001). However, this definition focuses on the individual and leaves out collective bargaining, a factor that is important to understanding contract farming and how power is negotiated.

*Collective bargaining* refers to arrangements made between a group of workers and a firm or within any setting with a collective group facing negotiation with another institution (OECD, 2018; Gibson, 2018). While not always applicable and dependent on the case, negotiations over contracts in contract farming are often mitigated through farmers' associations or other community organizations. Being a member of a farmers' organization is, as discussed in Chapter 2, encouraged in the literature as a way in which farmers can increase their bargaining power. Thus, collective bargaining is understood as both a way in which negotiation takes place and a potential way to strengthen overall bargaining power. Collective bargaining is also considered more valuable in imperfect markets or when monopsonies (i.e., markets involving only one buyer) are present (OECD, 2018). However, collective bargaining's role and the concept of bargaining power have not been made explicit in the contract farming literature; therefore, there is a need to expand on how power is conceptualized in contract farming to better understand the collective behavior often present in contract farming.

The term *bargaining power* is defined in the *Dictionary of Economics* by Black et al. (2012) as follows:

The ability to obtain a large share of the possible joint benefits to be derived from any agreement. Bargaining power is partly dependent on the losses that failure to agree is likely to cause to the various parties to a negotiation. In the absence of agreement, each party has a fall-back position: the less uncomfortable this is, and the longer any party can afford to stay in it, the stronger is their bargaining power. A party with a very uncomfortable fall-back position and an urgent need for an agreement has very little bargaining power. Bargaining power is increased by unity, financial reserves, and a reputation for toughness, and is decreased by division, shaky finances, and a reputation for being willing to compromise. (p. 29)

Here, it is clear that bargaining power centers on a negotiation and what can change that negotiation's outcome. Three factors contribute to bargaining power: finances, unitedness, and reputation. Although not explicit in the literature, each of these factors can be discussed in terms of their relevant strengths and weaknesses, e.g. which actor has the most money, and so on.

Bargaining power is an important concept in contract farming when addressing power in contract farming schemes. However, the understanding of this concept in contract farming is under-developed in the literature. The areas in which power in contract farming could be expanding concern time and space. Concerning time, bargaining power is used in a way that refers to a negotiation at a fixed point in time. Even though analytically it is recognized that bargaining power *can* change, there is no clear way in which to discuss how bargaining power does change over time when trying to capture dynamics that exist in contract farming schemes. Because changes in the scheme affect bargaining power, finding an analytical tool that addresses these changes may be helpful. Secondly, bargaining power focuses on the space created between those entering the contract: the contract farmers and the investors, those that sit at the negotiating table. As established in Sections 3.2 and 3.3 through Buur et al.'s (2019) relational model and the proposed local investment-level model, large-scale contract farming schemes (and large-scale natural resources investments in general) affect much more than the actors engaged in direct negotiation. The entire local population and sometimes ruling elites are also affected. Thus, bargaining power as discussed so far is often too narrow a concept to fit the reality of how contract farming investments are constructed. Specifically, as evidenced by the models discussed earlier in this chapter, I want to draw more attention to those relationships not usually considered in contract farming—e.g., the excluded local population and its relationship to both the contract farmers and the investors.

Thus, I propose another conceptualization of power that is more capable of describing changes over time and that is applicable to all actors and relationships that are affected by contract farming schemes, whether or not they are involved in the contract itself. This conceptualization

of power in contract farming goes beyond the fixed point of negotiation. I propose that Khan's (2010) concept of *holding power* can be a useful tool in analyzing contract farming.

### 3.4.2. Holding Power and Related Concepts

*Holding power* is a concept that is part of Khan's political settlements approach and was first developed in the 1990s when it was used to explore why growth-enhancing institutions behave differently in different countries, as a critical response to New Institutional Economic approaches (Khan, 2010; Behuria et al., 2017). According to Khan (2010), holding power is:

“derived from the analysis of games with cooperation in conflict” wherein the assumption is made that each party wants to exercise their ability to make a deal most beneficial to them (p. 6). Holding power is further explained as “the capability of an individual or group to engage and survive in conflicts” and as “the capacity of groups to impose costs on others and also the capacity to absorb costs afflicted on them” (Khan, 2010, p. 6).

*Holding power* refers to the capability of actors to survive conflict in order to secure or maintain a desired result. As Khan (2010) notes, two factors influence actors' holding power: imposing costs on other actors and absorbing the costs imposed on oneself. Both factors are important in influencing the involved actors' ability to hold out through a potential conflict over resources and opportunities. These factors are important for this study because contract farming is about actors engaged in relationships that are characterized by exchanges and different types of reciprocity. Because there is a functioning contract farming scheme, whether or not it is equal, understanding what can cause this relationship to begin breaking down or losing its balance is important for studying power in contract farming schemes.

However, to understand *holding power* one must understand that the ability to absorb or impose costs on actors does not come by itself nor is it necessarily innate. Khan (2010) highlights three aspects of power—economic strength or capability, the ability to organize, and the ability to hold out during conflict—as the decisive elements in determining holding power. In this inter-connected way, power is “partly based on income and wealth but also on the

historically rooted capacities of different groups to organize” (Khan, 2010, p. 1). Khan explains that if only economic strength mattered, then poorer groups would never win conflicts, which is not realistic. However, the ability to organize and rally and command attention is also important; thus, in some cases, the groups that are strongly organized win a conflict against actors with more economic strength or leverage.

*Economic strength*, according to Khan (2010), is an actor’s strength based on the amount of resources that can be easily deployed for influence, gain, or pushing back against other actors. This strength can be based on secure financial assets (e.g. whether or not an actor is in debt; has savings, credit; etc.) to manage risk and take on new endeavors. This strength can also be based on more tangible assets, including infrastructure, equipment relevant for the actor’s industry (mills, tractors, etc.) and natural resources (land, water, etc.).

The *ability to organize* (Khan, 2010), or organizational capacity, as understood here means that through organizing and mobilizing networks groups can enter collective bargains and work toward common goals, based partially on the concept of collective action. First popularized by Olson (1965) and used extensively by Ostrom (2000, 2015), *collective action* describes how, contrary to logic, individuals in a group will not act in the group’s best interest but in their own personal best interest. Ostrom’s work reveals that some individuals are more likely to work toward a group’s goal than others and to focus on how to deal with what is also called “a collective action problem” (Booth, 2012, p. 11). I am inspired by Booth’s (2012) following definition of a *collective action problem*:

**A collective action problem** exists where a group or category of actors fail to cooperate to achieve an objective they agree on because the first-movers would incur costs or risks and they have no assurance that the other beneficiaries will compensate them, rather than ‘free riding’. The problem is more likely to arise when the group in question is large and the potential benefits are widely shared (‘non-excludable’). Solutions to collective action problems involve enforceable rules (‘institutions’) to restrict free-riding and thereby motivate actors to act in their collective interest. (p. 11, emphasis in original)

Thus, with the appropriate institutions, actors are more likely to work together to achieve the group's objectives. In short, *institutions* are the constructs created and imposed by humans to create order in society and to reduce uncertainty (North, 1991). They are divided into two categories: formal and informal. *Formal institutions* consist of established rules in society (e.g., government, laws, and constitutions). *Informal institutions* consist of unwritten rules in society (e.g., customs, traditions, and cultural values) (North, 1991). Institutional theory is vital in understanding the creation and maintenance of economies because institutions dictate transaction and production costs per exchange. Lowering these costs leads to involvement in successful economic activities (North, 1991). Institutions offer the "rules of the game" of society to which human behavior is obligated (North, 1995, p. 23; Hoskisson et al., 2000). Addressing collective action and the ability to organize in contract farming, this study argues that there are three main manifestations of how and when collective action matters as related to farmers' initiatives, investors' choices, and local populations' initiatives.

The first manifestation is related to the role of farmers' organizations, associations, or cooperatives working directly with a contract farming investor to reach an agreement about exchanges and the contract's terms. These entities require actors to overcome collective action problems in order to work toward the best arrangement for the farmers collectively instead of each farmer's personal preferences. Secondly, in contract farming, investors can choose to either (a) target farmers in organizations because doing so could indicate some level of quality and sufficiency in terms of finding appropriate farmers who fit the economic model based on size of farm, training, and access to land, or (b) not target organized farmers because doing so would make it will more difficult for the investor to get a contract favoring the firm. Third, members of the local population may be able to unite and organize around a common threat posed by the presence of the contract farming scheme and work together against the company that perhaps also works against the contracted farmers, thereby splitting the local community or population.

### 3.4.3 Applying Holding Power<sup>10</sup>

Although holding power's central role in my analytical frame's development was not initially anticipated, the following quotation demonstrates what I have found to be the concept's analytical usefulness:

“Unpacking the components determining the holding power of different groups can give us insights into the likelihood of conflict and the way in which power, institutions and economic outcomes may be related” (Khan, 2010, p. 6).

This quote highlights some of the reasons holding power could be useful when analyzing contract farming schemes, as holding power connects outcomes with power and institutions. Furthermore, “insights into the likelihood of conflict” are valuable because this knowledge can be helpful in determining the longevity and dynamism of contract farming schemes. The contract farming schemes I have analyzed are not static, but instead are shaped by former contract farming schemes; the entrance into the schemes themselves; the actors' relationships over time; and external factors, such as shifts in political power or leadership, natural disasters, or changes in global or national value chains that affect the supply and demand, and thus the pricing of the crops grown under the contract farming scheme. Some events may lead to increased solidity of the contract or to the contract's breakdown. Also important is understanding that Khan's interpretation of power refers to the distribution of power:

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<sup>10</sup> In developing this framework, I considered examining additional ideas about power that could be informative. For example, Bourdieu's ideas about social capital, as well as field and habitus, have been used extensively in development studies, particularly those focusing on households and livelihoods. For example, Bourdieu defines *social capital* as “the sum of resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition” (Bourdieu and Wacquant, 1992, p. 119). Habitus has been used to explain and inform conceptualizations of livelihood choices, styles, and pathways (De Haan and Zoomers, 2005). Additionally, capitals are widely discussed among development scholars, and ideas around social capital link to Bourdieu's original conceptualizations (Bebbington, 1999; Woolcock, 1998). Capitals used by development scholars differ from Bourdieu's original capitals. Economic capital (i.e., financial capital) is separated from the others by being its own category (Hillbom and Svensson, 2013) and is in the list of capitals important for households: “natural, economic, human and social capitals” (Scoones, 1998, p. 1). When using capital terminology in the empirical chapters, I refer mostly to these highly pragmatic conceptualizations of Scoones' and other development studies scholars.

Power can be ranked along many possible dimensions. The dimension that is most useful for us is holding power [...] As the outcomes of conflicts depend on relative power rather than absolute power, our use of the word power refers to a distribution of power. (Khan, 2010, p. 20)

*Distribution of power* refers to how power is relative and dynamic. Power is relative in that what may be powerful in some settings is not in others; thus, it is relative in terms of the actors' capacity in a given setting. Power is also dynamic—i.e., it is not static in relationships but instead can change depending on the fluctuation of many factors. In contract farming, this change could result from internal relationships or external fluctuations in terms of natural *phenomena* such as droughts or floods. An example of an internal dynamic change is a farmer group gaining enough wealth to change the contract terms; thus, the power at the point of entering the contract is relative and not absolute.

Emphasizing holding power's dynamism is helpful when studying the distribution of the "evolution of power" as discussed by Behuria et al. (2017, p. 517) and which led Buur (2019) to argue that "the distribution of power between different groups in society is not constant but evolves continuously within a particular political settlement or distribution of power in society more broadly" (p. 7). Thus, holding power is a constantly changing process.

Holding power's conceptualization deals in part with situations involving disputes, which may or may not lead to conflict. While the contract farming cases in this study were not selected based on contestation, contestation exists in each of the cases analyzed, sometimes rupturing into open conflicts. In the different cases, some contract farming schemes remained in balance despite inequality while others started collapsing, thus highlighting what does and does not help schemes function in a way where both parties stay committed. The contract farming scheme's durability is important for many actors, including policy makers, investors, and smallholders.

### 3.5 Conclusion: Developing an Analytical Approach to Contract Farming and Holding Power

Holding power, as discussed by Khan (2010), is not only about the capacity to absorb and impose costs, but also about economic power, organizational ability, and the ability to withstand a conflict. Understanding the capacities to absorb and impose costs clarifies what role economic power and organizability might play in an investment. The mapping of investments and the characterization of relationships (as described in Figure 3.2) offer a framework for discussing holding power within each of the four cases. By identifying what characterizes the relationships, I can then start to consider how organizational power, economic strength, and the ability to hold out in conflict might be present in each case. Using the concept of holding power, I can then discuss the stakeholders' capacity to absorb and impose costs in each case. Applying holding power will help expand the theorization of power in contract farming; and holding power is applied in the empirical examples in the four specific cases of this study.

For example, imagine that a group of farmers are included in contract farming because they meet the minimum requirements of land ownership based on the amount of land they own, which can then be considered a mechanism of inclusion. During the course of the investment, they increase their household income, leading to their reinvesting in purchasing more land and, in turn, increasing their profits. Purchasing more land can also transform the farmers' capacity to absorb the investor's costs. If then, the investor increases the amount of product (e.g., cane) required for each farmer to provide to the company at the end of the season, the farmers can absorb the additional cost because they would have more land and higher profit margins.

Therefore, discussions of holding power are based on considering the capacity to absorb and impose costs on the other actor as well as what factors make up these capacities. The ability to absorb costs could be linked to economic strength; for example, a stakeholder is so strong economically that any attempts to "bring it down" or signs of contention are useless because the institution is so secure economically. The ability to absorb or impose costs is also linked to organizational capacity, in that a well-organized institution could impose costs so great on



another institution that the latter must shift or change. It is about not only each actor's economic power and organizational capacity but also how these capabilities measure up to one another. In this study, I discuss holding power in each of the cases to explore why differentiation occurs and how this holding power might change in a way that could affect the contract farming scheme's ability to maintain its existence. In other words, examining holding power will help understand the contract farming investment and identify factors that may become important in the investment's lifetime, particularly if conflict should arise.

Contract farming literature has discussed how farmers can be at the losing end of the contract over time if they are on unequal terms (Bijman, 2008; Korovkin, 1992). However, these contract farmers do not necessarily exit the scheme even if they can legally.<sup>11</sup> Instead, they remain because being in the contract is better than being outside it. Remaining in the contract can be discussed in terms of holding power because the farmers, through reinvesting the profits gained from contracting and also focusing on organizational capacity to improve relations with the investor, are affecting their capacity to absorb and inflict costs. Furthermore, in terms of the local population's excluded members, contract farming, and the local agricultural markets are not a zero-sum game; however, contract farming takes place on a local geographical scale, and within that locality resources are limited. These limited resources can be land, as well as access to markets and credits in the local community – there is only so much land, so many loans the banks are willing to give, etc. These are examples of revealed tensions in the cases and how the excluded local population can still be affected by the investor.

In summary, this chapter has developed two analytical approaches to addressing the gaps in contract farming literature focusing on relations and power. The first approach is a tool, based on inspiration from Buur et al. (2017, 2019), showing how to map investments through identifying exchanges and outcomes at the local level and providing understanding of what characterizes these relationships in contract farming investments—specifically, *symmetrical reciprocity* between the included local population and the investor, *asymmetrical reciprocity*

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<sup>11</sup> I have excluded schemes involving coercion or land trapping whereby farmers cannot leave without losing their only livelihood linked to land—see for example, Wendimu et al., 2016.

between the excluded local population and the included local population, and *indirect transfers* between the excluded local population and the investors. These characterizations identify what drives the contract farming schemes, even when relations are unequal. The second approach is to apply Khan's concept of holding power (2010) to the relationships in contract farming in order to discuss how power in contract farming is dynamic and can change over time and to include how power is distributed both within and outside the contract farming scheme. This framework will be applied in Chapters 6, 7, and 8.



# Chapter 4: Methodological Considerations and Fieldwork Strategy

## 4.1 Introduction

In this chapter, I reflect upon the methods and methodologies I chose, the data collection and analysis processes, as well as presenting reflections on the entire PhD project and the challenges it presented. I have chosen to structure this chapter by first telling the story of the PhD project as part of a larger research project and how this affected my data collection and thinking regarding the project. In this chapter, I outline the process of this PhD project, presenting the project's alignment with a larger research project called Large-scale Investments in Food, Fibre, and Energy (LIFFE). Then I describe the different phases of fieldwork and data collection, and finally, I discuss coming back from the field and starting to view the data more inductively and thematically and being drawn to different questions, due to, in part, influences from other research projects that were better designed for the data I had collected.

The methodological process of this PhD project, from project design, to fieldwork, to implementation, and finally to analysis all took place within a larger process of change and development as a PhD student. I have written this chapter in a way that hopefully invites the reader to read through the reflection process alongside the methodological approaches and data collection and analysis. Organizing this chapter chronologically allows me to explain the process that the dissertation went through over time. This chapter is organized in the following way. First, I introduce the initial project phase and LIFFE. Then, I turn to the case selection process. Then, I discuss the different stages and experiences of the fieldwork. Finally, I discuss my return from the field and the data analysis process.

## 4.2 Initial Project Phase and LIFFE

This section describes the progression of the PhD project and how it was related to and informed by the research project it was attached to, *Large-scale Investments in Food, Fibre, and Energy (LIFFE)*, managed by the Center for International Forestry Research (CIFOR), a research

organization, through a partnership with Utrecht University in the Netherlands.<sup>12</sup> The generous financial support from this project made the PhD and the subsequent fieldwork possible. There would be no dissertation without the LIFFE project. The fieldwork phase brought challenges as it opened up new areas of interest and relevance regarding the direction of the PhD dissertation, giving rise to questions about what was most interesting and relevant to focus on in the fieldwork and later analysis. Two main surveys were carried out in the fieldwork, which were developed collectively in the LIFFE project: a smaller one focused on investments in agriculture, and a household survey, which served as the bulk of the data collected and used for this dissertation for the four case studies selected. The data from the surveys was extensive, and both the investment survey and the household survey were developed to be standardized to match other team members' own fieldwork, allowing for comparison across multiple countries.

I returned from fieldwork with data from these surveys and other interviews and field notes, from which many different focus points or dissertation topics could be drawn out. The data collected through the LIFFE project was purposed to conduct larger cross-sectoral and international analysis that was based on, among other things, being able to test for statistical significance in order to address the research questions and work packages of the LIFFE project. The data from these surveys is extensive and informative about a number of different aspects of the households involved with the large-scale agricultural investments, as well as those in the same geographical communities who were excluded from a direct relationship to agricultural investments. I decided during and after the last half of my fieldwork to use contract farming literature as my main literature as there is a wealth of scholarly work on the subject to which this data would be relevant for analysis and dissemination. I also found that the data I had from the surveys could speak directly to contract farming literature and would add empirical value to this body of literature, especially due to the variance across the four case studies. As I continued the literature review, analyzing and writing process, the appropriateness of my choice of literature was further confirmed; I was able to see how my work brought out similar

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<sup>12</sup> The LIFFE project was also funded by the Department for International Development (DfID) DFID KNOWFOR I programme.

issues and challenges to those prevalent in the contract farming literature. This allowed for further confirmation of the relevance of my data in that the literature helped confirm that the type of information gathered, and the results were similar to others' work in the field and thus, appropriate for analysis and contribution to the literature.

#### *The LIFFE project's aims and work packages*

The LIFFE project had broad goals and some that are completely outside the reach of this dissertation. In order to explain my role in the project, I present below the specific topic, subject, relevant research question and work packages. The project's *topic* and *subject* were as follows:

Objectives of the action: Improved knowledge and information on the main global and regional trade and investment processes driving large-scale investments in land acquisition, production and transformation of food, feed and fiber in forest-rich producing countries; of the likely social and environmental impacts of these acquisitions under diverse business models, and their implications for deforestation, forest degradation and forest recovery; and of the policy options to speed up the transition towards low-carbon development paths. (LIFFE Programme Document, 2013)

The main activities were:

Research, including country-based and cross-regional comparative studies, assessment of business models and conditions to achieve sustainable food and biofuel production, and development of new methods for carbon and nutrients accounting, lesson exchanges. (LIFFE Programme Document, 2013)

My project did not cover any of the environmental focus nor carbon-accounting. Instead, from the above two passages, the key words for my project are: "large-scale investments", "diverse business models" (which includes contract farming), "assessment of business models", "sustainable food [...] production". The business models in the project refer to a variety of different ways in which large-scale investments carry out their production and processing of

food and biofuel products, including plantations, contract farming and other hybrid models (Eaton and Shepard, 2001; UNCTAD, 2009; Vermeulen and Cotula, 2010).

Furthermore, there were three main research questions put forward by the LIFFE project. I have only included the first one here as it was the overarching question for the work packages in which my project was involved:

*How can government interventions better capture benefits to smallholders and the rural poor from large-scale investments?* Marginalized smallholders and vulnerable groups, including women, are often excluded from engaging in international commodity chains. The conditions under which governments can create an environment that enables equitable smallholder participation and/or generates appropriate alternative livelihood options from large-scale investments need to be identified. (LIFFE Programme Document, 2013)

The overarching research question is quite broad and policy-focused. By answering this question, LIFFE would be able to advise policymakers and international donors on what can be done to help large-scale investments cater to and assist smallholders and the poor in ways that would benefit them. The LIFFE project is a response to the more recent discourse on agricultural development among policymakers, scholars, and international organizations, in that there is an increased focus on smallholders and how they can benefit through making agricultural development around large-scale investments more equitable and inclusive. The LIFFE project, and similarly, this dissertation, fits into Phase III of contract farming from Chapter 2, the phase in which inclusiveness is an important motivation for contract farming adaption.

My PhD project was specifically included under the following two Work Packages of the LIFFE project, where I participated in data collection in Tanzania that would help to meet common outputs of the project in order to compare across countries and sectors. The work packages below were designed as an operationalization of the overall research question, and as shown, they cover small topic areas under the overall research question, specifically investments and their conditions for existing and outcomes from certain “business models” or ways of

structuring large-scale investments. These two work packages were designed to provide a contextual understanding of large-scale investments as well as how smallholders benefit from them in order to answer the research question and thus, ultimately, propose policy that would target investments in a way that would maximize benefits for smallholders. The first LIFFE work package is described below:

Work Package 1: The geography of investments: patterns and trends and the political, economic, and geographical conditions under which they take place

Analysis of the political, economic and geographical conditions and factors shaping the interactions between food, feed, and fuel production and forests associated with large-scale investments linked to domestic and foreign markets are produced and made available to policy-makers and key stakeholders. (LIFFE Programme Document, 2013)

This work package was relevant to my project in that I was to undertake a survey of investments in large-scale agricultural production in Tanzania. This would give insights into the political, economic and geographical factors shaping investments in large-scale agricultural production.

Work Package 2: Assessment of outcomes from large-scale land-based investments under differentiated business models

Understanding of the social, economic and ecological trade-offs improved, and challenges and opportunities for removing institutional and market barriers for supporting business models that provide greater benefits for the rural poor while avoiding forest conversion identified and addressed.<sup>13</sup> (LIFFE Programme Document, 2013)

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<sup>13</sup> When referring to 'business models', the original intention was to look at what was called 'inclusive business models', i.e. ones that were more favorable towards the farmer. For a brief discussion on inclusivity, please refer back to the Chapter 2 Section 2.3.3.



This work package related to my project in that I chose cases that were large-scale investments under different types of contract farming models. The data then allowed for comparison between the different cases to see what challenges were faced in each case and how the challenges might affect the poorer members of the population.

To operationalize the project, common surveys were put together for the four countries and the targeted case studies. There was the investment survey first developed as part of the mapping and surveying of the entire agricultural sector and then the household survey that was then used for each of the cases.<sup>14</sup> I used adapted versions of the investment survey and household survey developed in the LIFFE project in my fieldwork; these are presented in their adapted versions in the Appendices and more detail is explained in Section 4.4 below. All other interview guides and methodological tools were developed independently, with appropriate feedback and dialogue between supervisors and the LIFFE project. The common format of the household survey allowed for the data from the cases to be aggregated to observe certain functions, trends, and indices.

*This dissertation, Tanzania, and my role in the LIFFE project*

The LIFFE project ran from autumn 2013 until autumn 2016. The project centered on three different countries (Brazil, Indonesia, and Mozambique), and in each country a PhD student carried out work to answer the main research questions of the project. Through the partnership with Utrecht, I was added to the project as a PhD student to carry out similar fieldwork as the other students, but in Tanzania, thus contributing to a cross-country comparison. The addition of Tanzania allowed for valuable understandings of differences within the Sub-Saharan Africa context, with in particular, comparison to Mozambique. For example, the same conglomerate owned multiple sugar factories, one of them being my case in Tanzania, and another being the case in Mozambique. Another important reason for choosing Tanzania as a case was the Southern Agricultural Corridor of Tanzania (SAGCOT) initiative, which was drawing particular attention to growth areas in agriculture that were targeting similar research goals to those of

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<sup>14</sup> The LIFFE team published a systematic mapping protocol for looking at different business models (Schoneveld et al., 2015).

the LIFFE project. This focus on corridors has also been a more recent trend in promoting investment in different developing countries.<sup>15</sup>

### 4.3 Case Study Design and Approach

The case study approach and the selection of cases were designed in collaboration with LIFFE. My approach to the case studies and how I interpreted them was developed during my own learning and reading process. The potential (and later confirmed) case study sites were proposed and discussed with the LIFFE supervisor to ensure they would fit the LIFFE project goals. The development of the methodological tools such as the surveys in particular was done through heavy collaboration with the LIFFE project.

#### *The methodological basis for case studies*

When approaching case studies, I was inspired by the *collective case study*. The collective case study approach means studying and comparing multiple cases in order to uncover information regarding a common phenomenon (Stake, 1995). The value in doing collective case studies is then being able to compare the cases across the same set of research questions in order to draw deeper understanding of the chosen subject of the research, from different angles (Goddard, 2010). Typically, standard collective case studies have at least three cases (ibid.), and for this dissertation four case studies were compared. I have used the same research questions across the four cases, which allows for both comparison and an in-depth context-specific understanding of contract farming. The cases themselves are unique examples of contract farming, which makes them further well-suited for the collective case study approach.

The context-specific understanding of contract farming discovered through this method adds value, as “Predictive theories and universals cannot be found in the study of human affairs. Concrete, context-dependent knowledge is, therefore, more valuable than the vain search for predictive theories and universals” (Flyvbjerg, 2006, p. 224). This is not to say that the findings from this dissertation cannot add value to the overall understanding of contract farming, but rather to say that is through case studies that concrete and context-dependent knowledge is

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<sup>15</sup> See literature about the Beira Agricultural Growth Corridor in Mozambique (Kaarhus, 2011) and SAGCOT (Bergius et al., 2018) for more.

uncovered. Furthermore, I am inspired by Flyvbjerg when he argues, regarding the value of case studies, “It is only because of experience with cases that one can at all move from being a beginner to being an expert” (2006, p. 222). This illustrates how experience with a variety of cases allows one to become an expert. Thus, when considering the heterogeneity of contract farming literature (Oya, 2012), in which most studies are in fact, context-specific case studies, I argue on the basis of Flyvbjerg’s reasoning, that case studies of contract farming are of great value in that through the variety of cases, expertise regarding what can be learned from contract farming is possible.

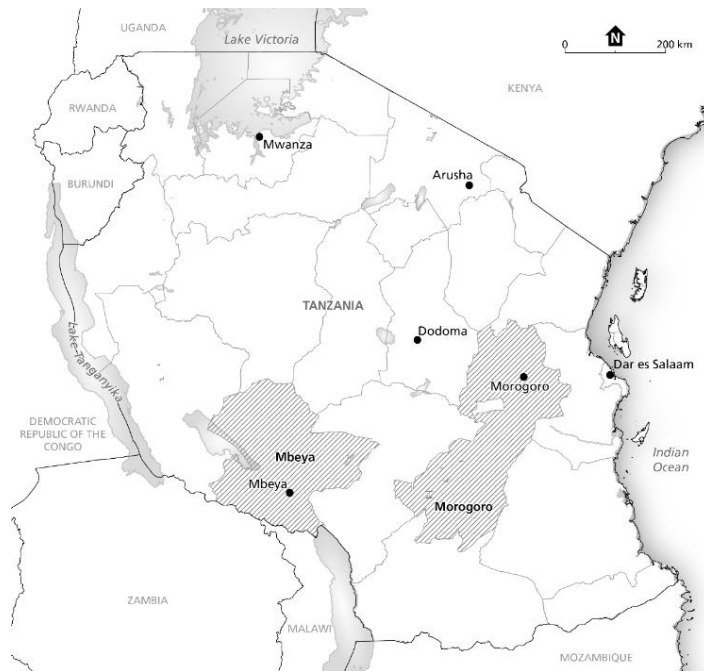
#### *Selection of cases*

The case selection in collaboration with LIFFE was developed over several stages. First, the aim was to find sectors that were important to the overall Tanzanian agricultural growth and agenda as well as sectors that heavily relied on smallholders, in order to meet these aims for LIFFE project selection. In choosing these sectors, it was also considered which sectors had major producers/processors within the same geographical regions, in order to keep geographical parameters similar. It was also of interest to provide some contrast in terms of food vs. cash crops, in order to see if there were differences that might be attributed to what type of agricultural production was being done. This was another reason for selecting the rice (food) and the sugar (cash) sectors. This comparison is also interesting in that similar climatic conditions are suitable for producing both crops (Brouwer and Heibloem, 1987), and in one case, this meant that some farmers were able to easily switch over to rice as a food crop when needed.

The cases are of large-scale agricultural investments that employ contract farming, essentially any type of involvement with procurement from a number of smallholders coupled with an engagement in agro-processing. The value of comparing cases within the same sector is that it helps to identify and draw out which factors are case-specific, and which are sector-specific, or Tanzania-specific, etc. Another important factor in case selection was the geographical area covered by SAGCOT. SAGCOT was launched about three years prior to the time of the initiation of this project (SAGCOT, 2011), so there was interest from the LIFFE project in delving into the

corridor to find relevant case studies. This was also a way to narrow the project area, and the investment sampling, since the whole of Tanzania's agricultural sector would be too extensive for the scope of this dissertation. By narrowing the focus to the SAGCOT area, the case selection was made possible in an area important to agricultural productivity as well as an area which was receiving a lot of attention, meaning that investments were and had taken place here that were interesting for case study and comparison. This of course means that other parts of Tanzania are not represented in this study; yet, as I discuss below, the SAGCOT area actually covers half of the main players in the two chosen sectors, thus meaning that the cases are representative. Using the definitions proposed by Seawright and Gerring (2008), the cases can be considered both *typical* and *influential*, as they are representative of the major players in each of the sectors. Since all four cases are large-scale investments and represent two of the major four producers/processors in each of their respective sectors (two out of the four major producers in sugar, and two of the four major producers in rice), each case represents a "typical" large-scale investment in that sector in Tanzania, as well as an *influential* one in that the set of cases is so small (only four major producers in each sector). The case studies were carried out in two different regions in Tanzania, as shown in Figure 4.1.

**Figure 4.1: Map of Tanzania Highlighting Two Main Data Collection Regions**



*Source: Universiteit Utrecht, Faculty of Geosciences | Dept. Communication & Marketing - Cartographic design*

Morogoro region is the location of the two sugar cases chosen and Mbeya region is the location of the two rice cases<sup>16</sup>. The cases are listed here:

### *Sugar*

I chose two of the four major producers of sugar in Tanzania that were located in the same geographical area, specifically in the Morogoro region (SBT, 2018), and these are also the two producers located in SAGCOT, which was the original focus point of the dissertation. These are the Kilombero Sugar Company Limited (hereafter KSCL), located in the districts of Kilosa and Kilombero and the Mtibwa Sugar Estates (hereafter Mtibwa), which is located in the Turiani division within the Mvomero district. KSCL and Mtibwa are separated by around 200 kilometers.

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<sup>16</sup> A detailed explanation of why sugar and rice are important growing sectors for Tanzania, both in terms of national interest as well as due to the number of smallholders they contain, is given in Chapter 5.

## *Rice*

I chose two of the four major producers that are located in the Mbeya region (Wilson and Lewis, 2015). These are Kapunga Rice Plantation Limited (hereafter Kapunga) which is located in the Mbarali district and Mtenda Kyela Rice Supply Company Limited (hereafter MKRS), which has their headquarters and processing in Mbeya city, and their production in the districts of Mbarali, Kyela and Momba. Like for the sugar cases, these two rice cases are also located in SAGCOT.

To build the case studies, I used a combination of household surveys, focus groups, semi-structured interviews, and mapping exercises. The investment survey and household survey were heavily designed through the LIFFE project, but the other methods were designed by me alone in conversation with supervisors. As described in the fieldwork phases section below, I used different methods at different stages of the fieldwork and used the results of some methods to prepare for the next methods, such as taking the results from focus groups and using them to target key issues in the household surveys.

## 4.4 Fieldwork Strategies and Implementation

This section discusses the three different fieldwork periods in Tanzania which were conducted for the LIFFE project and the dissertation. All three of these phases occurred during the time which I was attached to the LIFFE project, and thus, as mentioned above, this partly affected the data collection routes and approaches.<sup>17</sup>

### 4.4.1. Phase I: May-June 2014. Exploratory Phase

This fieldwork period was five weeks long, taking place mostly in Dar es Salaam but also in Morogoro. The aim of this first fieldwork phase was first and foremost to become familiar with Tanzania, conduct exploratory interviews to try and uncover issues related to my topic of interest, and to help define and narrow down a focus and build to the next phase, which would be an investment survey. Since at that point I was focused on SAGCOT, I began by trying to contact as many SAGCOT partners as possible in order to set up interviews and begin to

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<sup>17</sup> I was introduced to the Hierarchies Programme in 2015, but my choices regarding case study selection and approaches were made prior to deeper involvement in the program.

understand the agricultural corridor and the main stakeholders. By using both the list of SAGCOT partners as well as asking interviewees for contacts to other relevant partners, I employed a partial snowball method (Willis, 2006) in order to map out the different types of actors who were related to SAGCOT in some way. I conducted ten semi-structured interviews with SAGCOT partners or other related stakeholders. Semi-structured interviews allowed for the acquisition of specific types of information as well as allowing for exploratory conversations (Willis, 2006). I interviewed different types of partners, both public and private, and NGOs in order to capture a broad spectrum of stakeholders. The interviews were designed to try and capture an understanding of SAGCOT and its aims and ability to achieve its goals as well as an understanding of the depth and breadth of the initiative.<sup>18</sup> As such, the content of these interviews has not been included as main parts of the analysis in the subsequent chapters, but they were important to my understanding of the social, political and economic factors shaping the agricultural sector in Tanzania, particularly around the corridor. They have informed my viewpoints of Tanzania and Tanzanian agriculture, and they helped build my network, but as the later developed focus of the dissertation strayed from the SAGCOT focus, they serve mostly as background information that qualified the case selection process. This phase was essential in developing my understanding and knowledge of Tanzania and helped me begin to identify the key actors in agriculture.

#### 4.4.2. Phase II: November-December 2014. Agricultural Investment Survey

Phase II was three weeks long in which I set up and carried out the investment surveys. The goal of Phase II was to carry out investment surveys in the SAGCOT corridor, as this geographical area was decided upon during the development of the fieldwork together with the LIFFE project. The investment survey was designed within the LIFFE group. The goal of the investment survey was to capture various aspects of the agricultural investments in order to illustrate trends in agricultural investment as well as help identify cases for the dissertation. The criterion for an investment to be included was that it should be within the agricultural sector, e.g. a producer, processor, or supplier, in keeping with the overall LIFFE project structure. In

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<sup>18</sup> See Appendix A for list of interviews.

total, 38 surveys were conducted in six regions in the SAGCOT corridor: Dar, Cost Region, Iringa, Morogoro, Mbeya, and Sumbawanga. The investment surveys contained the follow sections: investment characteristics, financial situation, land access, cultivation and crop sourcing, processing, labor, marketing, shareholders, sustainability and drivers of investment.<sup>19</sup> The selection of the investments for surveying, while intentional in trying to capture investments with access to markets and in the SAGCOT, does mean that investments with more infrastructural challenges as well as in regions outside SAGCOT were not captured. There are limits to the data gathered due to a confined sample, however, trends and characteristics can be summarized in the designing of and subsequent reflection on this fieldwork section. It is 1) a tool by which I learned how to conduct surveys well in the field and reflect upon overall research design and 2) descriptive empirical material that helps to confirm what others have written about investments in Tanzania as well as highlight interesting trends and themes that are also present throughout the dissertation.

Investments were chosen using a snowball method utilizing lists gathered from informants at the National Environment Management Council, word of mouth, and through exploring SAGCOT's blueprint-containing partner projects. Surveys were conducted with one or more key persons at the investment, often gathering information across departments (for example, HR, management, and agricultural departments). The surveys were designed to gather a variety of information about the investments regarding everything from land tenure and community investments to number of employees and origin of investor. I hired local research assistants to help with the carrying out of interviews due to language and time constraints.

The findings of the survey helped me to highlight issues and concerns relevant to my cases.<sup>20</sup> I recognize that the survey is not necessarily representative; however, its primary function has been to help with case selection and overall as a heuristic tool regarding large-scale agricultural investments, again qualifying for the final phase and main fieldwork phase that matters for the dissertation. In total, 38 surveys were conducted,<sup>21</sup> and each of the four cases I ended up

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<sup>19</sup> See the survey in Appendix B.

<sup>20</sup> See Appendix B for an overview of the key survey results

<sup>21</sup> 41 surveys were done but three were removed from the analysis process due to insufficient responses.



choosing formed one of these surveys. The surveys show a variety of types of investments and years started, which gives an indication as to the diversity of investments and production types across the regions represented. The investments are either in the food or other agro-industries, including timber, and the variety of finished products differs greatly across the regions.

The purpose of this phase was to gain an overview of agriculture-related investments in the SAGCOT region. It also served as the first point of contact with the final four case studies.

#### 4.4.3. Phase III: In-depth Case Studies

Phase III of the fieldwork differed significantly from the first two phases because I relocated to Tanzania for a year, in which I finalized case selection and conducted the case studies. Once the final four cases were confirmed, I went on two major rounds of data collection. The first was a site visit with each case, accompanied by focus groups with stakeholders in the cases. I used focus groups to help inform the household survey by trying to capture what was important in the different sectors regarding contract farming, but equally, to inform about the overall structure of the contract farming schemes in practice as well as how the communities received the contract farming schemes. The focus group method allows for the collection of information regarding group viewpoints as well as differences in experiences, and it also allowed for the creation of a space that encouraged dialogue and the voicing of opinions (Lloyd-Evans, 2006). In total, there were 6 focus groups: 3 in the sugar sector and 3 in the rice sector. There were two different types of focus groups, one with farmers who were participating in the contract farming scheme related to the cases, and one with households who were not participating in the contract farming scheme but who were living in the same village as those who were. I chose to separate the contract farmers and the non-participants (excluded local population) in order to provide a neutral space for the non-participants to voice their opinions about the contract farming schemes (influenced by Lloyds-Evans, pp. 157-158) The questions ranged from asking about individual experiences with participating in contract farming, to the structure of farming associations, to changes seen in the local community due to contract farming, to reasons why contract participation was not possible. I had a research assistant facilitate the focus groups, as they were in Swahili, with questions and talking points prepared beforehand. Some qualitative

interviews were conducted at each case location as well where relevant and accessible.<sup>22</sup> The second round of fieldwork visits to each case was done to conduct the household survey in each of the four locations. I hired research assistants for both rounds. I had three research assistants who helped in gathering the household surveys, one of whom was also the moderator of the focus groups. The hiring of research assistants was also done to help with translation. While it was occasionally difficult to navigate working with the research assistants, in part due to the differences in power dynamics as well as cultural and managerial differences, it was invaluable in terms of allowing me to connect with the local populations, as they also acted as gatekeepers on a number of occasions (Bujra, 2006; Willis, 2006).

#### *The household survey*

The second round of data collection involved the conducting and carrying out of household surveys. The basic household survey was designed in the LIFFE project and it contained the following nine major sections: household characteristics, productive employment, livelihood activities, land assets and activities, agricultural inputs, household assets and amenities, perceptive welfare indicators, food security, and relevant extra questions depending on whether or not the household was involved with the contract farming case. The questions were aimed at answering the research questions in the LIFFE project, but they also fit the overall research question of this dissertation regarding uncovering the characteristics of large-scale investments in contract farming in the rice and sugar sectors in Tanzania. For each case, I developed some extra questions to better acquire specific information regarding the contract farming scheme, based in part on the results of the focus group discussions done in each sector prior to the carrying out of the household survey. Prior to conducting the surveys, we (i.e. myself and the research assistants) spent time training and going through details on the survey, conducted pilot surveys together and then divided up the surveys in the village in order to reach the numerical goals of the survey collection. We conducted a total number of 564 surveys that were usable in the data analysis.<sup>23</sup> Purposive sampling was done in order to try and capture a representative sample for each of the villages (Simon, 2006). While in some cases,

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<sup>22</sup> See Appendix A for full list of interviews.

<sup>23</sup> A few surveys were thrown out due to lack of response.

village maps were made available, this was not the case for all, and the village housing lists were unattainable. In each village, we met with a village chairperson who gave an overview of the wards/divisions in the villages, sometimes with population listed for each division. Then, sampling was planned out so that the different wards within each village would be targeted, and wards were chosen to be representative of the village as a whole, i.e. wards at the edge of the villages as well as the center of the village were chosen. As poorer households were often located at the edge of the villages, this allowed for a more representative sample across the village. Within the wards themselves we chose to do door-to-door sampling, selecting a starting house and a finishing house in each ward and going to every other door. An overview of how many household surveys were gathered from each case is shown in Table 4.1.

**Table 4.1 Overview of Household Surveys<sup>24</sup>**

<b>Target group</b>	<b>Number of surveys</b>	<b>Target group</b>	<b>Number of surveys</b>
<b>KSCL contract farmers</b>	125	<b>KSCL excluded local population</b>	117
<b>Mtibwa contract farmers</b>	58	<b>Mtibwa excluded local population</b>	59
<b>Kapunga contract farmers</b>	49	<b>Kapunga excluded local population</b>	58
<b>MKRS contract farmers</b>	46	<b>MKRS excluded local population</b>	52

*Source: Household surveys from fieldwork, 2015*

#### *Kilombero Sugar Company*

The Kilombero Sugar Company sources from some 8000+ farmers in 17 different outgrower associations. The associations are divided into two overall groups: those that are in the Kilosa district and those in the Kilombero district. The geographical specification matters because it is also how the company arranges which outgrower associations send cane to which mills, as the location of the two KSC-owned mills straddles the district lines, and the mills are called K1 and K2, and each district delivers to its respective mill. Some of the outgrower associations are geographically constrained to certain villages, while others have members from multiple villages. Some of the associations have been around for 20 years, while others are only a few

<sup>24</sup> See Appendix C for the household survey.

years old. Given this great heterogeneity, I decided to use purposive sampling in order to select communities and outgrower associations for conducting the household surveys.

First, the district of Kilosa was chosen over Kilombero; this was in part due to the representation of outgrower groups in the Kilosa district, but also because previous research in the area had at that point focused more on the Kilombero district (see Sulle, 2017b, for example). Secondly, within the Kilosa districts, the goal was to find two villages that were not adjacent to each other, one closer to the sugarcane mill, and one farther away. These two villages also both needed to contain multiple outgrower associations, and within the set of associations there needed to be at least one “older” association vs one or more newer associations. This was so that comparisons could be made at a later point in the analysis between associations (which is a main focus of Chapter 7). The villages that fit these conditions were Ruhembe and Kitete. The number of surveys gathered in KSCL is significantly larger than the other cases, this was due to both the size of the scheme as well as the desire to capture differences between different sugarcane farmer associations.

In Ruhembe, households were sampled from the following wards: Kikoni, Mlabani, Korodeko, Kijini, Ruhembe Juu, Madukani, CCM, and Kigea. In Kitete, the following wards were selected: Kanisani, Viwanja, Ubenami, Maendeleo, Ungonini Azimio, CCM, Msindazi, Liwalika, Lawandani, and Shuleni. In Rhuembe, the associations selected were the Ruhembe Cane Growers Association and Bonye. In Kitete, the associations were Msowero, Maendeleo, and MCGA, the latter two of which had been established in 2010 and 2008, respectively, while Msowero was established in 2015.

Towards the end of conducting the household surveys, a survey was conducted with representatives from each of the outgrower associations in KSC, inspired by other LIFFE team members noticing this was an important group to capture in data collection. As many households had switched associations over time since they started growing sugarcane, conducting this survey helped to gain additional information regarding the outgrower associations themselves.

### *Mtibwa Sugar Estates*

The Mtibwa Sugar Estates work with some 6300 estimated contract farmers/outgrowers at the time of fieldwork and they employ around 700 people (from investment survey, 2015). These are spread out across the villages in the district, some being close to the mill and others far away. There are only two associations connected to Mtibwa: Mtibwa Outgrowers Association (MOA) and Turiani Cane Outgrowers (TUCO). The two villages chosen in the Mvomero district where the mill is located were Kisala and Kichanga, with Kisala being adjacent to the mill and Kichanga farther out. This was done to capture a representation of those close to and far away from the mill, as the geographical separation may have an impact on their experiences, similarly to what was done at KSC. The wards selected within these were Kati, Dibuti and Kisala-Kait in Kisala; and Misufini, Mapalamba A, and Ngomeni B in Kichanga.

### *Mtenda Kyela Rice Supply*

According to their estimates, MKRS works with approximately 10,000 rice farmers, mostly through local sourcing at village levels (from 2015 investment survey). In 2014, they started their contract farmer program, which at the time of fieldwork in 2015 consisted of about 50 farmers. The aim was to survey all of them since the sample size was relatively small, and 45 surveys were conducted. We went to the villages of Mswiswi and Isenyela, as these were the two villages where MKRS had started their contract farming program. After targeting all 50 of the farmers in the contract farming program, the procedure was to gather an equal number of non-participants in these two villages, and, using the same methods used for the other cases, we gathered surveys from the non-contracted farmers in Mswiswi village, the wards surveyed were Danida, Tazaara, Kanisani A, Kanisani B, and Usafwako; and in Isenyela: Utage, Mwanjelwa, Mnyulunyulu A, Mnyulunyulu B, Manyolo A and Manyolo B. MKRS also sources from the districts of Kyela and Momba, but since they do not contain contract farmers yet, it was not deemed comparable for the survey as the aim was to compare farmers with land in similar geographical areas. However, a focus group was conducted in Momba to find some of the issues facing farmers who sold at arm's length from MKRS.

*Kapunga Rice Plantation Ltd.*

Kapunga Rice Plantation Ltd. worked with approximately 70 outgrowers at the time of the fieldwork. Given the small sample size, when we asked the company about where the outgrowers were located, we were informed that many of the farmers lived or were travelling elsewhere, but we received a telephone list which included all of the outgrowers. We decided to contact them all via telephone and conduct the survey over the phone. We contacted every farmer given the small sample size, and we were able to obtain 46 surveys in total, capturing the vast majority of the group.

To contact the “non-participants” in the Kapunga case, I chose the village of Kapunga, the closest village to the farm, as the location for the household surveys. This was also the village that had been at the center of the land-related conflicts with Kapunga Rice Plantation Ltd. over the years (Greco, 2015b). In the village, the wards of Tambarale, Mapogono, Matoleo, and Ofisini were chosen.

#### 4.5 From Field to Desk: Transitioning to Analysis and Writing

This section explains the progression from the fieldwork to the individual process of developing the PhD project. Upon returning home from fieldwork in early 2016, I realized that I had aligned my project’s question closely to the LIFFE project without a full reflection as to whether or not this still made sense after gathering the fieldwork data, or if it focused on what was interesting about the cases. I returned, overwhelmed by experiences and data, and I began the data analysis process by first inserting, categorizing, and organizing the data into a database. At the same time, I was reading further into the literature of contract farming, as well as participating in workshops, readings and discussions in the Hierarchies of Rights program, a research program I had become affiliated with during my fieldwork period, hosted at Roskilde University and spanning a number of researchers specializing in Tanzania and Mozambique. The aim of the Hierarchies of Rights program is outlined in the paragraph below:

Large-scale investments into natural resources have the potential to accelerate economic growth, create jobs and strengthen links between local economies and world markets. However, investments often end up upsetting rights and causing social

protests and political instability. The project aims to analyse how struggles related to large-scale investments into natural resources affect rights, particularly of small-holders, to land in Sub-Saharan Africa.<sup>25</sup>

I am associated with this program and have had the opportunity to attend workshops and work on papers together with other members of the team. This program focuses on large-scale investments, including agricultural investments, which my four cases in Tanzania all were. Other researchers in the program are also focused on agriculture in Tanzania, Uganda, and Mozambique, which allowed for relevant and interesting discussions and collaborations on the meaningfulness of the cases. This research group introduced me to analytical frameworks about relations between investors, local populations, and ruling elites (Buur et al., 2017),<sup>26</sup> as well as important discussions about political economy, rights, and power, including the ideas of Khan (2010) and political settlements and holding power. It is a bit difficult to say which came first regarding these influences and the reading of my data, but I was impressed by these theories and ideas about how to view investments, specifically my contract farming cases, at the same time as I was reading literature about contract farming and entering and processing the data from my fieldwork. It could perhaps best be described as a continuum, where over time the ideas began to take form as I was informed by these three different sources of input: my data, theoretical insights from the Hierarchies of Rights program, and the contract farming literature. I then began to approach the data purposively, using inspiration from *thematic analysis* (Braun and Clarke, 2012, 2006) to look for information that surrounded the gaps and the theoretical concepts I wanted to examine. In Section 4.6, I go into further detail on the thematic analysis approach.

Thus, in summary, both the project, but also my abilities as a researcher evolved over the course of the project. Affiliations and influences from the two different research projects both helped to inform my ideas and ways of seeing the project, as well as challenging them. While it

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<sup>25</sup> <https://ruc.dk/en/research-project/hierarchies-rights>

<sup>26</sup> Discussed in Chapter 3 Section 3.2.

was not a clear-cut process, upon reflection, I have found that I learned a great deal theoretically, methodologically and as a researcher throughout this journey.

#### 4.6 Thematic Data Analysis

My first step towards data analysis was the time-consuming task of entering all the data from the household surveys into spreadsheets, giving me an overview of all sections of the surveys and the responses. A few surveys were thrown out due to confusion in answers or a consistent lack of response across multiple sections of the survey. I then delved deep into this database to find trends, patterns, changes, averages, etc. that I have featured in this dissertation regarding specifically the characteristics that could be used to describe the investments and the differences between the farmers included in the investment and those households that were not. Using an adjusted form of thematic analysis and an inductive approach, I was able to identify key findings and characteristics.

##### *Inspiration from thematic analysis*

Considering the background of this dissertation and the challenge in moving from focusing on a larger research project to the concrete dissertation, it was necessary to find a way to analyze the data that allowed for separation from the LIFFE project's boundaries and a focus on my own theoretical conceptualizations using a qualitative approach. I was able to do this using the principles of *thematic analysis* (Braun and Clarke, 2012, 2006) when looking at the data following my return from the fieldwork. Thematic analysis (TA) can be described as the following:

TA is a method for systematically identifying, organizing, and offering insight into patterns of meaning (themes) across a data set. Through focusing on meaning across a data set, TA allows the researcher to see and make sense of collective or shared meanings and experiences. (Braun and Clarke, 2012, p. 57)

By focusing on meaning across the data set, I was able to draw out in themes data that fit with the research questions and theoretical inquiries I had. Another useful capacity of thematic analysis is that it is not bound to a pre-determined theoretical framework: "thematic analysis is



not wedded to any pre-existing theoretical framework, and therefore it can be used within different theoretical frameworks (although not all), and can be used to do different things within them” (Braun and Clarke, 2006, p. 81). Thus, I was able to apply thematic analysis to the data from the fieldwork. I used what Braun and Clarke (2006, p. 83) call an inductive approach to thematic analysis. That is, without a set theoretical framing, I approached the analysis as being data-driven, allowing the themes to be shaped by what the data spoke of. However, within this “inductive” approach, as Braun and Clarke (2006, p. 84) also point out, there is really no such thing as pure-data-driven inductiveness, as I was still bound to epistemological and theoretical influences. Thus, while inductive in the sense that I used the data as a starting point for drawing out relevant findings, the overall themes that were then chosen for specific data analysis were certainly influenced by the theoretical discussions surrounding power and relations due to my membership in the Hierarchies of Rights research group, as well as due to influences from the contract farming literature. The following themes were chosen for thematic analysis:

- 1) *Resources and inputs surrounding participation or lack thereof in contract farming*: What resources did households have? How did they use them? Did participating in contract farming help them become better-off? This included land and agricultural inputs as well as using income from contract farming for other things.
- 2) *Organization and access*: What did households have in terms of organization with other farmers or lack thereof? If they were members of an organization, how did this happen and if not, why? What roles did the organizations play?
- 3) *Conflicts and tensions*: In the open-ended survey answers, what conflicts, tensions and problems were present in the areas where the CF cases were based? What did this say about the company in the village?
- 4) *Relationships*: Anything to indicate positive and negative relations between the farmers and the companies or other farmers. Often found in the open-ended survey answers or the focus group discussions.

By having these themes in mind before pulling out pieces of data, I was able to address the targeted research questions and the relevant gaps which are elaborated on in the subsequent empirical chapters. Often the findings on themes are portrayed through descriptive statistics and tables/graphs to show key insights.

#### 4.7 Ethics and Role

As with any research, the researcher should be aware of their role and the potential biases that may be caused by one's presence, and I am aware that I was an outsider engaging with research in a community and culture in which I am not embedded, which requires reflecting upon one's plans when engaging with fieldwork and data collection (Sherry, 2008). I acknowledge that my role as an outsider, specifically a white or *mzungu*, Western woman, certainly must have affected my role as a researcher, and that my interpretations in the field might also be biased due to the fact that the knowledge produced came from what could be considered a position of power or privilege (Apentiik and Parpart, 2006). Sometimes this position was made very clear to me as some respondents or villagers were confused initially by mine and my research assistants' presence and thought that we were with an NGO looking for projects to donate money to, and these sorts of dynamics have also been reported in other similar contexts (Apentiik and Parpart, 2006). While I relied on my research assistants to help clarify our role there to gather information, figuring out our working dynamic may have skewed responses during the first couple of days of surveys. On the other hand, some farmers also experienced our presence as a way to voice their concerns to a third party who had no local influence, and they greatly appreciated the anonymity of the surveys. This experience fits with how the researcher's "positions and roles are negotiated and renegotiated by both the researcher and the researched community throughout the research process" (ibid., p. 36). As the research took place, adjustments to methods and expectations had to be made in order to try and create the space that was most conducive for the aims of the data collection.

Additionally, I found it occasionally difficult to find gatekeepers in Dar es Salaam and amongst the government, due to me being an outsider with little connection to Tanzania, and sometimes, due to being a woman, which reflects ethical and gender-related challenges in data

collection in developing countries (Momsen, 2006). Gaining access to villages in the company of my research assistants was much easier than gaining access to government bodies or some company headquarters, as the villagers typically welcomed us as students wishing to learn more about their experiences with contract farming. To the best of my knowledge, I have undertaken my research while following the Danish Code of Conduct for Research Integrity and, since its implementation in 2018, the EU Data Protection Rules.

#### 4.8 In Summary

The process of project design, data collection and analysis were lengthy, and at times, complicated. I was constantly interpreting and re-interpreting my role as a PhD student at two different universities, associated with two different research programs, and as a researcher myself in the field in Tanzania. The fieldwork produced a large amount of information on contract farming in Tanzania, and it allowed me to analyze the four different cases in this dissertation. Without undergoing the processes above, I would not have arrived at the empirical and analytical contributions of this dissertation as they are today.



# Chapter 5: The Context of Agriculture, Rice, and Sugar in Tanzania

Providing an understanding of why rice and sugar are important sectors for Tanzania, this chapter presents the empirical cases. First, the context for Tanzania's agricultural sector in general and the rice and sugar sectors in particular, which encompass this study's four main cases, are presented. Next, the cases themselves are presented along with descriptions of land ownership in these cases. Agriculture is an important sector in Tanzania because of its growth potential for both increasing production as well as improving incomes and well-beings. The challenges facing this sector range from economic to environmental. This chapter addresses the first working question: *How are the rice and sugar sectors important for Tanzania's agricultural development, and what describes the relevant contract farming schemes in these sectors?* In answering this question, I show how rice and sugar are relevant sectors for studying cases of large-scale agricultural investments in contract farming due to their national importance as evidenced by their growth potential, policies, and smallholder engagement. Furthermore, I present the four empirical cases in this study and their value as empirical cases and how land is differentiated within the local populations, thus providing background information for discussing the relationships among the actors affected by contract farming schemes. Those relationships are further explored in subsequent chapters.

This chapter begins with the agricultural sector's significance in Tanzania. Next, land use and governance in Tanzania are briefly discussed. The sugar and rice sectors are introduced along with key issues and relevant agricultural policies. Then the cases are introduced individually. Finally, the context of land differentiation in the four cases is presented to show not only the diversity across cases and sectors but also differentiation within the local populations.

## 5.1 Significance of the Agricultural Sector and its Development

Agriculture has been and is an important lifeline to the Tanzanian economy—in terms of GDP contribution, the agricultural sector accounts for 28.7% (World Bank Indicators for 2018 level). About two-thirds of the population rely on agriculture as their primary livelihood, accounting for 65.7% of rural household incomes (World Bank, 2018). Both food and cash crops are grown, with many cash crops being exported. Major food crops include maize, sorghum, millet, cassava, sweet potatoes, rice, and wheat. Major cash crops include coffee, cashews, tea, cotton, and tobacco (URT, 2016). From 2006 through 2014, the agricultural sector's annual growth rate in Tanzania was 3.9% on average (URT, 2016). About 24% of arable land, or 10.8 million hectares, is currently under crop production (URT, 2013). In addition to cultivated land, an estimated 30 million hectares of arable land remain suitable for agricultural activities (SAGCOT, 2011). Despite the amount of arable land and the potential for high agricultural productivity, much of Tanzania's rural population still lives below the poverty line; and about 80% of Tanzanians live in rural areas (URT, 2006).

Agriculture has played a significant economic and societal role in Tanzania's history from before independence to villagization and the post-Arusha Declaration era, to structural adjustments and neo-liberalistic policies, to today with its trends of pushes for public-private partnerships. Specifically, the era following independence in 1964 was characterized by increased government control over many areas affecting agriculture, such as land, nationalization of products, controls and marketing, and villagization (Ponte, 2002; Bjerk, 2010). Ujamaa or villagization was a resettlement program in rural areas combined with formally injecting high capital and technology aimed at spurring development in these areas. The plan was abandoned in the 1970s due to negative outcomes, including over-cultivation of some plots and lack of improved agriculture and social services, which had been promised as part of these schemes (Ponte, 2002; Bjerk, 2010). When Tanzania faced a deep economic crisis in the late 1970s and early 1980s, the agricultural sector suffered as well, perceived by some as resulting from state intervention. The crisis was related to the broader crises across Africa regarding the heavy debt burdens and economic shocks of the late 1970s (Shivji, 2009).

The Structural Adjustment Programmes (SAPs) promoted by the World Bank and the Bretton Woods Institutions in the early 1980s, blamed the state for the poor economic performance across Africa (Shivji, 2009). Following the SAPs, the IMF and Tanzania agreed on economic reforms leading to an overall liberalization era across the country as well as the agricultural sectors and encouraged more neo-liberal policies including opening up agricultural markets. However, despite some positive effects, key producer crops suffered in terms of price due to the more liberalized markets and increased competition (Ponte, 2002). Agriculture continues to play an important role in Tanzania in the debates on poverty reduction, growth, and structural transformation (Oehmke et al., 2016; Badiane and Makombe, 2015).

#### 5.1.1. Agricultural Development, Poverty Reduction and Transformation

As introduced in Chapter 1, agricultural and related structural transformations are important goals for donors and governments in developing countries, including Tanzania. In particular, agricultural transformation is important because it is an essential element for “inclusive economic development, structural change, poverty alleviation and overall better living conditions” (Hillbom and Svensson, 2013, p. 1). While agricultural development goals are a mainstay on the agendas of donors and Tanzania, promoting agricultural development is, in part, justified by research showing productivity’s potential to affect agricultural transformation by being potentially linked to poverty reduction, even at the household level. Hillbom and Svensson (2013) argue that increases in productivity are essential to agricultural transformation. Increased productivity can entail yield increases due to, for example, input usage, increased labor efficiency, and increased technical efficiency due to knowledge transfer. These factors can be categorized into four elements: *institutions, land, labor and capital*. Thus, agricultural transformation can be studied by “investigating micro processes aiming at increase in agricultural productivity, in their prolongation they potentially make up the larger process that is termed the agricultural transformation” (p. 3). According to Hillbom and Svensson’s framework, outcomes in agricultural development linked to these four elements are important to agricultural transformation. As discussed below, many policies in Tanzania target areas related to these four elements. The idea that increased productivity can be linked to agricultural transformations provides context for at least partially understanding why benefits

from contract farming matter, in that, as discussed in Chapter 2, contract farmers often gain inputs and exposure to technology.

Some scholars contend that agricultural development can be directly linked to poverty reduction in poorer agrarian societies (Irz et al., 2001; Gollin et al., 2002; Christiaensen and Demery, 2007). A large percentage of poor households in developing societies are directly involved in agricultural production; thus, any income from these activities is directly invested in local goods and services. Investment and growth in agriculture will immediately benefit the poor if they can be included in the investments (Poulton et al., 2008). GDP growth from agriculture can potentially reduce poverty in the dollar-a-day poverty group when the poor are farmers (Christiaensen et al., 2011). According to Christiaensen et al. (2011),

Irrespective of the setting, a 1% increase in agricultural per capita GDP was found to reduce the total \$1day poverty gap squared by at least 5 times more than a 1% increase in GDP per capita outside agriculture, despite being substantially smaller than the non-agricultural sector. (p. 251)

Thus, agricultural growth is most significant for the poorest of the poor if they are farmers, indicating that agricultural investments which include the poorest farmers have the potential to reduce poverty (Christiaensen et al., 2011).

Tanzania has enacted numerous policies over the years to achieve poverty reduction, agricultural transformation, and increased commercialization. Agricultural policies since Tanzania's independence have been varied, influenced by both the ruling elites and donors as well as by the changing tides of popular structural policies over the past 60 years (Ponte, 2002). The objective here is not to provide an exhaustive summary of agricultural policies but to show how insufficiencies in agricultural sector growth are being targeted and to highlight a desire for more private sector investments.

Promoting commercial agriculture might connect smallholders to larger commercial investments or encourage them to organize in new forms (cooperatives) and to participate in contract farming. Thus, promoting these policies for commercial agriculture, as well as trying to



increase the inputs and technology for smallholders, is related to contract farming in terms of why it is promoted as well as its potential benefits. Significant agricultural policies and initiatives adopted in the last 20 years include the Kilimo Kwanza in 2009, Comprehensive Africa Agricultural Development Programme in 2011, TAFSIP in 2011, SAGCOT in 2010, National Agricultural Policy in 2013, and ASDP II in 2016. Because this dissertation is about the rice and sugar sector, some of these policies will be briefly presented in Section 5.2 regarding the specific sectors.

### 5.1.2. Land Governance and Agricultural Land Use in Tanzania

Given land's intrinsic role in agriculture, land governance is crucial because it dictates how land is to be used and governed. Land tenure can be a contentious issue when it comes to agriculture, investments, and communities (Greco, 2015b; Kaag and Zoomers, 2014). For countries like Tanzania, customary laws mixed with modern laws create a complex land governance process. In Tanzania, there are issues regarding land use; therefore, various land acts and policies have been enacted and changed over recent history to make land access and titling fairer and more transparent. Worldwide, there are also many recorded issues of communities not being properly reimbursed for land purchased from them; other issues involve people being displaced without proper compensation, and more. These issues are part of the global conversation about land grabbing (Zoomers and Kaag, 2014). Although this dissertation does not examine land grabbing analytically, the debates around it inform the context in which the studied cases exist. As noted in Chapter 2, land grabbing is also relevant to contract farming's popularity as a recent solution. The National Land Policy of Tanzania, the main land-related current policy, includes three documents governing three legal land categories: general land, village land, and protected land (Sulle, 2017a). Land can cause conflicts between investors and communities; and in some cases, the government has been accused of trying to purposefully take village land away to sell to investors. Sulle (2017, p. 13) notes that stakeholders are fighting over "a limited quantity of highly fertile land".

According to the National Agricultural Policy (URT, 2013), land cultivation should vary by encouraging intensive farming in densely populated areas, along with other types of farming,

including large-scale. This policy also emphasizes that “the potential exists for expansion of agricultural areas under cultivation for small, medium and large-scale farming in areas with available land for expansion while intensive farming shall be applied in densely populated areas with the aim of commercializing agriculture in Tanzania” (URT, 2013 p. 3). Furthermore, this policy recognizes that all stakeholders must be agreeable to tenure and that “the protection of premium lands for agricultural development is crucial for increased long-term benefits” (ibid. p. 16); however, it is unclear how the protection of land is accomplished.

#### *Agricultural land use*

Land used by farmers can be categorized as *large farms*, defined as at least 20 hectares of cultivated land, and as *smallholdings*. According to the latest agricultural sector census, there were just over 1000 large farms in Tanzania, covering just over 1.1 million hectares, and an estimated 31 million smallholders, whose land use covered over 11.8 million hectares (URT, 2012).

**Table 5.1 Types of land use**

**Types of Land Use (Source: Kironde 2009)**

Type of Land	Area (millions hectares)	
Small holder cultivators	4.1	4%
Large-scale agriculture	1.1	1%
Grazing land	35	38%
Forests and Woodland	44	48%
Other land	4.4	5%
Arable land	3.6	4%

Source: Kironde, 2009 (more recent information was unavailable).

The remaining arable land identified in Table 5.1 is 3.6 million hectares, and large-scale and smallholders combined are about 5.2 million hectares. Sources on land use tend to provide different figures (Makwarimba and Ngowi, 2012), making it a challenge to determine exactly how much land is being used and for what. When examining the Land Bank Scheme, which was established to keep track of land available for investment after the Land Act of 1997, it is noted

that 500,00 hectares came into foreign investors' possession during the 2004-2009 period; thus, land was transferred to investors.

#### *Scale of agricultural farm systems*

Understanding the agricultural farm systems' different scales contextualizes large-scale investments. For Sub-Saharan Africa, the three scales of farming can be defined as *smallholders* (or family farms), *small investor farmers*, and *large-scale commercial farms* (Poulton et al., 2008). A smallholder operates a farm almost exclusively with only family labor except for possible seasonal hires. The small investor farmers working on middle-sized farms still maintain the family as the center of the farm operation, but most farm labor is done by externally hired workers. The third type, large-scale commercial farms, focuses on a management team not necessarily bound by familial relations; instead, a central firm and staff are hired for all aspects of farm operation. Additionally, these three categories can reflect three different land-holding sizes, with the smallholders having the least amount of land on average and the large-scale commercial farms having the most amount of land on average. The cases in this dissertation involve either smallholders or middle-sized farmers, or a combination of one/both of these with a large-scale plantation. When discussing which farm size and type are preferable in terms of production, the choice is mostly dependent on the particular crop and differs depending on the context (Jaffee, 1995). Some case studies support the idea that large-scale commercial agriculture can lead to better performance in an African context, specifically in the case of horticulture, sugar, and tobacco (see Dolan et al., 1999 and Poulton et al., 2008). However, evidence of smallholders performing better in cashew nuts and cotton is also available (Poulton et al., 2008), thus highlighting that farm size is relevant to the specific crop and that some crops are possibly more suitable for contract farming.

In many large-scale investment cases in Tanzania, the government has granted land to the investor, involving either previously state-owned land or land seized from local populations (Interview with Haki Ardhi, 2014; Greco, 2015b). How land has been acquired (i.e., how change of ownership was conducted) can be significant in determining how local populations and communities receive a specific investment, i.e. whether it is received positively or negatively.

## 5.2 Rice in Tanzania

Rice is a staple food crop across the world; and in Tanzania, it is the third most important food crop after maize and cassava (Wilson and Lewis, 2015). Approximately 20% of farmers in Tanzania produce rice (ibid), which is cultivated on over 681,000 hectares of land (Barreiro-Hurle, 2012). The rice production in 2007 was 1.35 million tons (Barreiro-Hurle, 2012) with only a small percentage exported. Smallholders rely on rice as both a food source and income by selling to local traders and other farmers. Rice production has increased over the past few years. In 2009, there was a 15% rice deficit of around 150,000 tons (RLDC, 2009); thus, the national demand could not be met. In 2014, however, there was a rice surplus, estimated to be 700,000 tons (RCT, 2015). More recently, the surplus was estimated to be 1.3 million tons (Joseph, 2018), with the government reportedly stopping further importation of rice at that time. A surplus raises questions regarding how to create mechanisms and how to identify markets to which this rice can be exported.

Rice represents about 20% of the cereal production in Tanzania (Therkildsen, 2011). Most rice is grown on small-scale farms, although recent promotions by FAO and others (Wilson and Lewis, 2015) have led to more focus on improving the rice sector's productivity by increasing farm size. Rice also has a central role in the policies and agricultural initiatives established by the Tanzanian government. Like sugar, rice has been associated with conflicts over importation as reflected in specific policies and strategies, which include the rice sector as a major target for agricultural and economic development. One of the key and increasingly important motivations behind improving the rice sector is its value as a food crop and concerns regarding food security, most recently following the 2007-2008 food crisis. In a self-assessment, Tanzania ranked itself as having comparatively high food insecurity relative to other Sub-Saharan African countries (Headey, 2013, p. 22). Perception of increased food insecurity has been a motivating factor behind policies and movements to increase Tanzania's rice production. Furthermore, climate change may negatively affect Tanzania's food security over time (Arndt et al, 2012) due in part to heavy reliance on rain-fed agriculture. The following policies and strategies illustrate how the Tanzanian state values rice as an important crop:

- *National Rice Development Strategy (NRDS)*. The strategy was published in 2009, and it was written to help achieve food security through promoting the staple food crop. Through six different interventions, the NRDS aims to double rice production and help commercialize the sector and increase possibilities for export (URT, 2009; Wilson and Lewis, 2015).
- *Southern Agricultural Growth Corridor of Tanzania (SAGCOT)*. One of SAGCOT's main goals is to encourage increased rice production (SAGCOT, 2011). In its 2016 annual report, SAGCOT listed Kilombero Plantations Limited and Mtenda Kyela Rice Supply Company Ltd. as two of its strategic partners but did not provide details about them.
- *Accelerated Food Security Project (AFSP 2009-2013)*. This program's total investment was about USD 245 million, co-financed by the Tanzanian government and the World Bank (in tandem with ASDP). The objective was to contribute to higher food production and productivity in targeted high-potential areas in Tanzania. The total number of beneficiaries was 1.75 million households. The AFSP had three main goals: (a) improving access to maize and rice seeds and fertilizers by strengthening the National Agricultural Inputs Voucher Scheme (NAIVS); (b) consolidating the agricultural input supply chains by strengthening private agro-dealer networks and national seeds systems; and (c) managing projects, including monitoring and evaluating (URT, 2017).
- *The East Africa Agricultural Productivity Programme (EAAPP)*. This program supports the Regional Centers of Excellence (RCoE), contributing to increased agricultural productivity and growth. This is done through strengthening and scaling up regional cooperation in technology development, training, and dissemination programs for four priority commodities (wheat in Ethiopia, rice in Tanzania, cassava in Uganda, and dairy in Kenya). Accordingly, EAAPP strives to enhance regional specialization in agricultural research for development (AR4D) and to facilitate the increased transfer of agricultural technology, information and knowledge within and across national boundaries (URT, 2017).
- *Feed the Future (FTF)*. In Tanzania, FTF is a USD 70 million annual off-budget contribution from the United States Agency for International Development (USAID).

Eighty percent is invested in SAGCOT. FTF's goal is to improve economic opportunities and incomes through private sector-led interventions and partnerships. Expected outcomes are increased yields (maize and rice), productivity, market access for horticulture producers and prevalence of children receiving a minimum acceptable diet. About 100,000 smallholders (about 2% of the total number of smallholders) are targeted (URT, 2017).

The main focuses in these policies and initiatives in promoting the development of the rice sector are on combating food security by increasing rice production and addressing market failures in the rice markets, leading to a more developed sector. The specific market failures in the rice sector in Tanzania are related to input provision, access to and maintenance of irrigation systems, storage, transportation, and market access.

#### *Rice production*

Rice in Tanzania is produced primarily by smallholders, who account for 99% of production, while the remaining 1% is from larger and commercial farms (Barreiro-Hurle, 2012). About 5% of the rice produced in Tanzania is exported; the rest is for national market consumption (Wilson and Lewis, 2015). During the 2007-2008 planting season, 139 large-scale farms grew rice covering 5448 hectares, with the remaining 701,990 hectares grown mostly by smallholders. The average rice yield for smallholder farmers is estimated at 2.4 metric tons per hectare, whereas it is much higher for larger-scale farms at around 12 metric tons per hectare (URT, 2012). However, despite the high yield of large-scale farmers, smallholder rice production still accounts for the majority of rice production. According to the Rice Council of Tanzania, two major issues faced by these farmers are that (a) they struggle to market their production and (b) access to inputs is difficult (RCT interview, 2015; Wilson and Lewis, 2015). While voucher programs have been available in Tanzania, they have not been deemed very successful, producing mixed results for farmers (Kato and Greeley, 2016). In their survey of NAIVS, Kato and Greeley found that better off farmers benefited the most as opposed to the poorer farmers and that the program's implementation was weak. Following market liberalization trends and the effective dismantling of the National Food Corporation NAFCO and the National Milling

Corporation, which controlled marketing and regulation of the grain markets, Tanzania has faced disorganization and confusion in marketing management. The National Rice Development Strategy does not emphasize better access to markets but rather preparation for the market. The Agricultural Sector Development Program II (2016) aims to improve rural market infrastructure and access although it is vague in its implementation methods. The use of yield-improving inputs for rice production is still limited among smallholders in Tanzania. The ASDP <sup>27</sup> 2009/2010 report (URT, 2011) showed that around 25% of smallholders use improved seeds. A baseline study from 2011 (Lwezaura et al., 2011) indicated that about 50% of the farmers surveyed used fertilizers and about 40% used pesticides. About 37% of the households used vouchers to buy inputs, and the majority of these were used to buy fertilizer. Many factors impede the procurement of inputs like fertilizers; these factors include availability, distribution, cost, and lack of knowledge about new inputs (Wilson and Lewis, 2015).

#### *Import-export issues in the rice sector*

Because Tanzania's rice sector has historically been unable to produce enough to meet national demand, importation of rice has been allowed; however, there has been a trend of illegal/smuggled rice, driven by price differentials rather than consumer demand (Therkildsen, 2011). Before 2005, imported rice accounted for up to 50% of all rice on the market in Tanzania (Nyange and Morrison, 2005). Thus, rice importations in Tanzania have been complicated by the illegal smuggling of rice, which has increased challenges for rice producers in Tanzania in selling their rice. However, production has grown; and in 2018, the government stopped rice importation because of a surplus of national rice production (Joseph, 2018).

Given that some of the weakest elements of the rice sector in Tanzania are lack of affordable inputs, access to markets, and technical knowledge, contract farming could be a viable option since these elements are often provided through the contract. The promotion of contract farming as a viable intervention is further supported by the fact that recent policies aim to address some of these issues by encouraging private sector development and contract farming

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<sup>27</sup> ASDP is a framework used to guide agricultural policy in Tanzania and to commercialize the agricultural sector. The ASDP program has involved two phases thus far (URT, 2016).

(URT, 2016; SAGCOT, 2011). Where government provision and infrastructure are limited, contract farming can provide legitimate pathways to increases in yields and welfare. Since these conditions apply to the rice sector in Tanzania, this study is critical because it examines what contract farming has provided in a sector that needs improvement in order to reach its full potential. Rice farmers have reported that well-functioning and accessible markets continue to be paramount for the rice sector, given the current surplus (Joseph, 2018).

### 5.2.1. The Empirical Cases: Mtenda Kyela Rice Supply Company Ltd. and Kapunga Rice Plantation Ltd.

Mtenda Kyela Rice Supply Company Ltd. (MKRS) and Kapunga Rice Plantation Ltd. (Kapunga) are two of the “big four” large-scale rice processors in Tanzania (Wilson and Lewis, 2015). Located in the Mbeya region, they represent 21.57% and 5.57%, respectively, of the national market share of rice production (Chauvin, Porto and Mulangu, 2017).<sup>28</sup> In this section, the cases are presented, including relevant context, company profiles and business models, and the two groups of contract farmers surveyed for this study. These cases differ in that MKRS is a sole proprietorship owned by a single family, whereas Kapunga is owned by the multinational Export Trading Group.<sup>29</sup> A processor of rice, MKRS sources rice from 10,000 to 15,000 farmers (Chauvin, Porto and Mulangu, 2017; Wilson and Lewis, 2015; Interview, 2015) and has formal contracts with a small group of these farmers. Kapunga has its own plantation and a small program of contract farmers as well. Thus, these cases are different in that MKRS does not have land and processes rice outside the communities where it buys the rice while Kapunga has a plantation and processing mill in the same location where the contract farmers are located and rents the land to the contract farmers.

### 5.2.2 Kapunga Rice Plantation Ltd.

Kapunga Rice Plantation Ltd. (Kapunga) has a long and somewhat tumultuous history in the region. The formerly state-owned farm was bought by the Export Trading Group during the era of liberalization and privatization in the 1990s.

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<sup>28</sup> See Chapter 4 Section 4.3 for more on case selection.

<sup>29</sup> The Export Trading Group is a large agricultural conglomerate, which focuses mainly on African countries for procurement but spans several continents. It originally started in Kenya; in Tanzania, it is run by Asian Africans. See <http://www.etgworld.com/>



The owners are the Patel family. A prominent member of the family is Jeetu Patel, who is also a major importer and trader of rice. He is known to have influential political contacts (Africa Confidential, 2013; Therkildsen, 2011). There have been claims that the state farm's privatization involved corruption, with accusations of selling Tanzanian state property cheaply to "foreigners" (Therkildsen, 2011, p. 40) in exchange for benefits. The ETG Kapunga Rice Plantation Limited inherited about 7,370 hectares of land from the National Food Corporation (NAFCO) project at the time of privatization in 2005. While apparently state owned, this land emerged from a 1995 transfer whereby villagers in Kapunga Village, Mbarali District, "gave" (i.e., were forced to give) 5,500 hectares to NAFCO for a rice production project with no compensation in return. When NAFCO was dismantled in 2005, the state offered a title deed for 7,370 hectares to the Kapunga Rice Plantation Ltd., including around 2000 hectares of land from Kapunga Village. More recently, in 2015, 1870 hectares of the land owned by the farm were repossessed by authorities and given back to the community due to the company's lack of usage (Kahango, 2015).

Kapunga Rice Plantation Ltd has about 200 employees, occupies about 7500 hectares, and owns a rice mill for processing and producing rice before sending it to retailers. The total capital investment up to 2015 was about 8.85 million USD. The plantation yields on average 7 metric tons of rice per hectare annually. Each hectare of land requires 2.5 million TZS to operate per year, and around 3500 hectares are currently cultivated. The Kapunga Rice Plantation Ltd. cultivates the majority of the land but also leases some land to tenants operating as contract farmers, although they are labelled as outgrowers. One group of contract farmers operates as traditional tenants with simple lease contracts. Another group of contract farmers are under a more detailed contract than traditional tenants, with the Kapunga investor providing various services, inputs, and benefits as part of the contract. Kapunga has about 60 farmers contracted, although recent media reports indicate this number has reached 98 (The Citizen, February 16, 2018). The Kapunga produces about 10,000 MT of processed rice per year, making it one of the

largest producers in the country. It employs about 2000 seasonal workers to work on the rice fields. It targets domestic retailers and traders, and its main market is the Mbeya region.<sup>30</sup>

#### *Land conflict in Kapunga*

Kapunga has a history of conflict over land which provides important context for understanding the investment at the local level as well as power. Studies from the last two decades provide a context for understanding the history of Kapunga contract farming in the Mbarali district (see AFDB, 1995; Chachage and Mbunda, 2009; Greco, 2010, 2015a, 2015b). The Kapunga Rice Farm was originally a parastatal, and its privatization created a situation ripe for conflict in the 1990s after liberalization policies were implemented (Greco, 2015b). Chachage and Mbunda (2010) discussed the privatization of farms owned by the then-National Agriculture and Food Corporation (NAFCO), ranches under the National Ranching Company (NARCO) and land belonging to absentee landlords. These researchers observed that the process was “marred by controversies that have elicited animosities between investors and small-scale producers on the one hand, and between small-scale farmers and pastoralists on the other hand” (p. viii). Experience shows that investors and/or parastatals that have transferred their title deeds to new investors have sometimes infringed on local populations’ rights to compensation and consultation (Greco, 2015a). Studies show that up until the late 1950s, Mbarali, where Kapunga is located, was a pastoral grazing area before it was transformed into an important commercial rice farming area (Hazelwood and Livingstone, 1978; Walsh, 1984).

The Kapunga Rice Farm was planned in 1979 as an irrigation scheme, paid for by the Tanzanian government through an African Development Bank (AfDB) loan co-financed by the Nigerian government, and was finally established in the late 1980s after expropriating village land (Greco, 2015b). The state farm, whose land had been levelled for the construction of water canals, had two components: the large-scale estate (3015 hectares) and a smallholder scheme (800 hectares). These components were interdependent, relying on a single, shared water canal; and they had a shared title deed, which was a source of conflict when the farm was finally privatized in 2005. The estate was originally composed of six-hectare rice plots, pooled

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<sup>30</sup> From company survey and interviews (2014, 2015).

together for mechanized production, plus the estate headquarters, the workers' compounds, a large rice mill, a warehouse, and other undeveloped areas (AFDB, 1995). The smallholder scheme was subdivided into one-hectare plots, which were allocated to farmers from the Chimala Ward by the state.

To get the land for the state farm, the state moved and resettled several farmers. As Sulle (2017b) observed, the compulsory acquisition of village land by the government "for public interest" was enabled by the Land Acquisition Act of 1967, giving the president extensive discretionary powers as the trustee of public land. A small group of local residents belonging to the area's early settler families and recognized as village founders opposed the resettlement, but their resistance was unsuccessful. The farm started operating in 1991 under the management of the National Food Corporation (NAFCO)—one of the largest parastatal corporations involved in large-scale food production in Tanzania – which managed it until privatization in 2005. The state farm turned out to be unfeasible and was sold to the Export Trading Company Ltd. during the liberalization process.<sup>31</sup>

ETG's owner is from the Asian-African Patel family, a major importer and trader in rice with good contacts with the ruling political party Chama Cha Mapinduzi (CCM), the "Party of the Revolution" in Tanzania; the Patel family was apparently once a major funder of this party in exchange for access to land and business contracts (Africa Confidential, 2013; Therkildsen, 2011).<sup>32</sup> According to Therkildsen (2011), the state farm's privatization was "shrouded in controversy", involving corruption with accusations of selling Tanzanian state property cheaply to "foreigners" in exchange for benefits for the ruling CCM aligned elite, giving land access to contract farmers (p. 40). ETG was founded in Kenya and is a multinational company with corporate offices in Tanzania. One indication of controversy was that ETG obtained not only the state land but additional land during the privatization process. The offer of around 2000

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<sup>31</sup> Greco (2015) suggests that NAFCO failed due to pest control issues as well as management and corruption issues – in other words, what is often called general bureaucratic incapacity often characterizes state-owned enterprises emerging from this époque.

<sup>32</sup> Given the Magufuli presidency's focus on cracking down on corruption, also within CCM, this dynamic is likely changing. For example, see <https://www.reuters.com/article/us-tanzania-corruption-idUSKBN1431VG>

hectares of Kapunga village land created tensions between the investor and more than 4,000 villagers who felt the state had transferred land to a private property holder for the second time without due compensation (the first time being when the state farm was originally established). To solve this problem, in September 2015 the Ministry of Lands revoked the ownership of 1,870 of the original 7,370 hectares of land and returned it to Kapunga Village (Kahango, 2015). Although the Minister of Agriculture, Food Security and Cooperatives made statements of assurance that this land would be returned in 2009 and 2011, the process from statement of initial intention until final implementation took six years.

Table 5.2 summarizes the history of the establishment of the Kapunga estate.

**Table 5.2 Timeline for Kapunga Rice Plantation Limited**

1979	A feasibility study for the planned establishment of the Kapunga Rice Farm was undertaken. The initial plan proposed developing 2,000 hectares for winter soya and 2,700 for rice in addition to 2,000 hectares for a smallholder irrigation scheme, managed by an independent smallholder association, to be given technical coverage and assistance by NAFCO staff in order to provide full support and extension services to the smallholders and to provide machinery on a contract basis. The large-scale farm was conceived as a mechanized, commercial unit.
1985/1989	Following land expropriation in 1985, several households were relocated to make way for the Kapunga Rice Farm,
1987	A final appraisal by the African Development Bank reduced the net irrigated area from 5,370 to 3,800 hectares. Leveling and draining the new paddy fields began with the goal of infrastructure building and land development for 3,000 hectares of irrigated, large-scale farmland plus 800 hectares of irrigation scheme for smallholders, both under NAFCO management and an upgrading intervention for the existing Chimala small-scale irrigation scheme.
1991/92	The Kapunga Rice Project started full production with 3,015 hectares. As noted by Greco (2010) rice production was highly capital intensive:  “[It was] designed as a completely mechanised large scale farm, with costly equipment to allow the productive cycle to be completed with the minimum amount of labour. The whole cycle of rice cultivation—from direct seedling with airplanes spreading the seed from the air directly into watered fields—to mechanised harvesters, production utilized the most modern techniques for rice farming [...]All the project personnel resided on the spot [...]a cafeteria provided meals for the staff, the estate shop sold

	retail at subsidised prices, a primary school was nearby and a village dispensary was working 24 hours” (p. 131).
1996/97	The estate started renting the rice plots to outside farmers, most of whom could also rent the estate tractors, harvesters, and threshers.
1997/98	NAFCO’s direct rice production shrank from the initial 3,015 hectares to 256 hectares.
2003/04	In 2003-04, the last agricultural season under NAFCO-Kapunga’s authority, around 2,300 out of the 3,000 hectares estate were leased to farmers and employees.
2003/04	The Minister of Agriculture announced that the government had decided Kapunga, as well as the other ex-NAFCO farms, would be privatized to small-scale farms.
2004	In May 2004, PSRC laid off the 170 NAFCO-Kapunga employees; and the farm was entrusted to a Caretaker Committee (a temporary team consisting of a general manager, an accountant, and the security staff) until outright sale.
2006	The Kapunga NAFCO Farm sold for about Sh. 2.3 billion (roughly 1 million USD) to Export Trading Company Ltd., which paid 13.89% of that amount at the time of signing the preliminary agreement and the rest at the signing of the final agreement.
2008	President Kikwete announced that the rice farm should not be converted to a jatropha farm, despite earlier discussion, and that if the investors wished to do so, they could return the farm to the government so that it could be used to produce staple food for national consumption.

*\*Sources based on Bantje (1984); Chachage and Mbunda, (2009); Greco (2010); and Greco (2015b).*

As suggested in Table 5.2, the ETG Kapunga investment was viewed with caution by state entities other than those in charge of the privatization process. For example, the potential move into Jatropha—a bio-diesel regime that briefly emerged in the middle of raising food prices and while the global land grab was being discussed (Kaag and Zoomers, 2014; Pedersen and Buur, 2016)—was controversial but was also based on generalized mistrust toward the investor as described above. At the heart of the conflict was long-standing village animosity toward not only ETG but also state acquisition of land over 50 years, when local populations in Kapunga felt their land claims had been alienated. This background is important in understanding the controversies surrounding the Kapunga investment and how the relationships among the investors, local population, and ruling elites unfolded over time.

### 5.2.3. Mtenda Kyela Rice Supply

Established in 2006, Mtenda Kyela Rice Supply Company Ltd. (MKRS) is privately owned by a Tanzanian businessman, George Mtenda, and is headquartered in Mbeya, the largest city in the Mbeya region.

MKRS consists of only a handful of permanent employees; at the time of fieldwork in 2015, there were 13 fully employed workers and functionaries.<sup>33</sup> The company has a main office and a rice mill in Mbeya, where the rice sourced from small- and medium-scale farmers is processed. The company sells most of its rice to wholesalers in Dar es Salaam (Wilson and Lewis, 2015). MKRS does not own land for rice production, but instead works with a small but growing number of contract farmers. The town of Mbeya is situated quite high up in terms of elevation; therefore, there is a significant distance (up to 100-200 km) between the mill and the districts where the company sources the rice, depending on which district they source from because rice is grown at lower altitudes. According to the 2012 Bill & Melinda Gates Foundation (BMGF) report, MKRS has received several grants and loans for its smallholder program and for scaling up its production. The total capital investment at the time of fieldwork was reported to be 1.6 million USD. The Tanzanian Private Sector Foundation provided a training grant, the Agricultural Council of Tanzania (ACT) co-financed the development of demonstration plots, and Oikocredit extended MKRS a loan for 2012-2014 (BMFG, 2012; Interview with MKRS, 2015). MKRS also received funds from SAGCOT's catalytic fund and is a strategic partner within SAGCOT aiming to improve the rice sector (SAGCOT, 2016). The BMGF data (2012) shows significant benefits for farmers who participated in MKRS's scheme, increasing yields and profits through a combination of training and inputs. MKRS has been hailed as promoting a rice processor scheme that provides opportunities to bring transformation to smallholder farmers (Wilson and Lewis, 2015). The Agricultural Council of Tanzania has also worked with MKRS through the Tanzanian Agricultural Programme to promote a value chain approach and to direct engagement with farmers (ACT, 2019). The ability of MKRS to produce increased yields (claiming 6.8 metric tons per hectare for those smallholders it has trained (BMFG, 2012) with

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<sup>33</sup> Company survey and interviews (2014 and 2015).

higher profits for farmers) has enhanced its position as a strategic partner in SAGCOT, perhaps triggering some of the grants and loans. This study focuses on MKRS's new contract farming scheme.

MKRS acquires rice in two main ways: by buying up rice at local markets; from individuals; and more recently, through contract farming (Interview, 2015). The company annually targets the same communities in three districts: Kyela, Momba, and Mbarali. MKRS agricultural officers estimate that they source approximately 15000 smallholders annually (Interview, 2014); however, this number has varied in reports over time, ranging from 10,000 to 15,000 (SAGCOT, 2016; Wilson and Lewis, 2015; Chauvin, Porto and Mulangu, 2017). In 2014, MKRS started offering formal contracts with farmers in selected communities to increase the rice productivity of the farmers from whom they source; these farmers are this study's target group.

MKRS's employees conduct agricultural field days in the various districts in which they operate to educate the local sourcing communities on farming techniques. Additionally, the company supplements fuel costs for extension officers who travel far into the various districts. For the input schemes, MKRS used approximately 3.4 billion TZS (\$150,000) to procure various inputs and training in 2014. Plans to expand include building a mill closer to where the rice is sourced. In 2014, the profit was 1.9 million TZS; and the company purchased 10,000 MT of rice, which was processed into about 500 MT of rice. MKRS also purchased 6000 MT of rice in 2017 for processing (Interview, 2018). The company produces between 3500 and 4000 MT of rice per year and targets domestic markets through retail shops primarily in Mbeya and Dar es Salaam.<sup>34</sup>

### 5.3 Sugar in Tanzania

The sugar industry in Tanzania is important for the national agenda because sugarcane is a cash crop with potential for export. Furthermore, it has been discussed as being important for bio-energy and as a direct and indirect employer of thousands of citizens (Sulle, 2017b; Nkonya and

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<sup>34</sup> Company survey and interviews. A follow-up telephone/email interview was conducted with the son of the owner of MKRS in September 2018 to gather updates on key units.

Barreiro-Hurle, 2012). Its importance to political and national agendas is also evident in the policies and contestation present in the sector. However, the industry faces several challenges, likely limiting the sugar sector in Tanzania from further growth, both nationally with major deficits in the domestic market's production and importation battles as well locally with farmers facing uncertain weather patterns and, thus, uncertain crop yields yearly.

Before Tanzania's independence, sugarcane production had already begun as early as the 1920s, with sugar production starting in the 1930s (Nisindagi and Sesabo, 2017; Sulle, 2017b; SBT, 2016). Four major mills are located in Tanzania: Kilombero Sugar Company, Mtibwa Sugar Estates, Kagera Sugar, and TPC Ltd. The sugar industry directly employs almost 18,000 people, with estimates of up to 300,000 employed in business somewhat related to sugarcane, which annually produces approximately 330,843 metric tons of sugar as reported in 2017 (SBT, 2018; Sulle, 2017b).<sup>35</sup> For the 2015-2016 season, an estimated 51,000 hectares were cultivating sugarcane, and 42,000 hectares were harvested (SBT, 2018).<sup>36</sup> Since privatization, an estimated 500 million USD dollars (2015 estimate) has been invested in the sugar industry (Sulle, 2017b). The four mills were privatized in the late 1990s and early 2000s (SBT, 2016). All mills operate their own cane estates; but according to the most recent Sugar Board of Tanzania data available, approximately 18% of cane harvested that goes to the mills is from the outgrowers/contract farmers employed by three out of the four major mills or 556,521 tons from the 2016/2017 season (SBT 2018). This data contradicts other reports which say that 60% of the cane is from outgrowers (Kuzilwa et al., 2017, p. 36). The sugar sector has also been important due to the potential contribution to biofuels, though this has been of secondary importance to increasing sugar for human consumption (Sulle, 2009). The most notorious sugar

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<sup>35</sup> Finding reliable information on direct employment in sugarcane is difficult. For example, in a December 2018 news article, the number directly employed was as high as 30,000 <https://www.newsghana.com.gh/tanzania-new-strategy-to-boost-sugar-production/>.

<sup>36</sup> In investigating the "facts and figures" of sugar in Tanzania, consistency was difficult to find; and different sources gave different numbers regarding output, deficit, and number of farmers involved. Thus, it is important to remember to use the figures to illustrate the relative importance of the sugar sector. For example, it is relevant that hundreds of thousands of Tanzanians are involved in some way in sugarcane. It is also important that close to half of the sugar produced in Tanzania comes from cane sourced from contract farmers and not plantations. Finally, it is important to note that there is a significant deficit between national demand and production, as well as an over-importation of sugar to combat the deficit.



as biofuel project was the plan for the Bagamoyo EcoEnergy project, which was initially intended to produce ethanol for the Tanzanian state to use to supplement fuel (Engström and Hajdu, 2019). The proposed project was later changed to focus on sugar production instead of biofuel; however, the project was ultimately tabled and failed (Engström and Hajdu, 2019).

Policies affecting the sugar sector. As with the rice sector, several policies specifically target the sugar sector in Tanzania. Some of these policies include the following:

- *Southern Agricultural Growth Corridor of Tanzania (SAGCOT)*: To accomplish some of the activities of *Kilimo Kwanza*, SAGCOT was established in 2010 after being adopted at the World Economic Forum as a public-private initiative that would transform agriculture in a concrete geographical area. In the geographical area of “the corridor”, covering several regions from Morogoro to Mbeya, large amounts of agriculture were already present (URT, 2008). Sugar is listed by SAGCOT as one of the “major crop opportunities” (SAGCOT, 2011, p. 21). SAGCOT’s goal for the sugarcane industry is that by 2030 the regions covered by SAGCOT will be producing 4.4 million tons of sugarcane (SAGCOT, p. 49). Although SAGCOT is considered one of the most relevant initiatives regarding sugarcane investment, its implementation ability is unclear, particularly concerning the availability of land for new investments (see Bergius et al., 2017). The Investment blueprint proposes that 20,500 hectares (along with new mills) be added to the corridor’s commercial sugarcane production (SAGCOT, 2011). However, the clearest proposition in the plan is the “sugar outgrower consolidation” for Morogoro, with a financial need of over USD 13.6 million “to establish 1000 ha of outgrower sugar plantation” (SAGOT, 2011 p. 59). Unfortunately, the annual reports available online do not discuss the progress toward SAGCOT’s sugarcane goals (SAGCOT, 2016).
- *Big Results Now!* (BRN): This initiative was established in 2014 under President Kikwete to provide additional funding and support in order to reach some of the goals established by the Tanzania Development Vision 2025 aimed at a cross-sectoral push toward Tanzania becoming a middle-income country by 2025. It targets agriculture as well as other areas including transport and energy. This initiative was also aimed to be accomplished through 25 commercial farming deals in the rice and sugarcane sectors by

2025. One goal was to increase sugar production by 150,000 tons in three years and to improve agricultural productivity and market effectiveness in the sugar sector (BRN, 2014, p. 2). This initiative is partially funded by IFAD and the African Development Bank (URT, 2017). According to the most recent version of the ASDP, BRN is included as an additional agricultural sector initiative, but it is difficult to see if progress is occurring. For example, the failed Bagamoyo sugar investment, reported in the 2015 report, was intended to be one of the BRN deals.<sup>37</sup> This failure is just one example of a contradiction between the promotion of the sugar industry and the reality of conflicts within the sector.

#### *Governance of sugarcane*

The sugarcane industry's regulation and governance have changed over time, reflecting the sector's shift towards privatization in the last two decades. The industry's major stakeholders are the sugar producers and the outgrowers/contract farmers; these groups are regulated and governed by slightly different organizations.

After the establishment of the commercial mills in the 1960s, the National Food Corporation (NAFCO) ran the state-owned enterprises until the Sugar Development Corporation replaced management in 1974 (SBT, 2016). For the two mills in the Morogoro region, the state trained outgrowers and supplied inputs through organizations like the Kilombero Sugar Institute, Kibaha Sugarcane Research Institute, and Ministry of Agriculture. After privatization, outgrowers faced problems receiving services offered by these institutions, and farmers had to work through the Tanzania Sugarcane Growers Association to lobby for contracts in order to secure prices and loans, which were signed first in 2006 with KSC and in 2009 with Mtibwa (Nisindagi and Sesabo, 2017). The Sugar Board of Tanzania, founded through the Sugar Industry Act of 2001, is the sugar industry's main regulating body, which serves the Ministry of Agriculture. Members are appointed by the Tanzania Sugar Producers' Association, the

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<sup>37</sup> See Engström and Hajdu (2018) and Bergius et al. (2017) for more detailed discussions of the Bagamoyo project's history and eventual failure.

Tanzania Sugarcane Growers' Association, consumers, and the Ministry of Agriculture (Sulle, 2017b; SBT, 2016).

Sugar production has yet to meet national demand in Tanzania, with an estimated deficit of about 220,000 tons (Rabobank, 2013) or 300,000 tons (SAGCOT, 2011). According to the most recent data available from SBT, approximately 238,000 tons of sugar were imported in the 2015-2016 season (SBT, 2014). According to a member of the Ministry of Industry, Trade and Investment, the deficit in 2018 was around 165,000 tons for domestic use and 145,000 tons for industrial use (Suawa, 2018). However, sugar importation has not been an entirely transparent process. The importation process has caused conflict because the import prices have sometimes been low, undercutting national production and forcing domestic producers to drop prices (Sulle, 2017b). In a 2014 report, the SBT chairperson described the "collective action" of several entities, including SBT itself, which stabilized the Tanzanian sugar market after severe problems due to "illegal importations and abuse of industrial sugar import quotes by unfaithful industrial users" (p. 5). For many years, the import tariff rate was 10% (Rabobank, 2013); but recent reports indicate there have been proposals to push it up to 35% (Masare, 2018). Thus, when examining the cases in Chapter 6, it is important to remember that factors on a national level are influencing and can threaten to influence local markets and sugar prices. In the summer of 2018, the Tanzanian Sugar Producers' Association again raised concerns that too many imports were being allowed and that not all the sugar produced in Tanzania was getting to market (Lwangili, 2018). The conflicts over importation paralleling the government's and policy makers' push for increased investment in sugarcane are a cause for inquiry as to why the government is pushing for investment in the midst of major concerns about whether or not the sugar industry is being properly regulated.

#### *Technicalities of growing sugarcane*

Sugarcane growth requires both dry and cool seasons as well as warm and wet ones. The growing season for sugarcane is quite long, between 9 and 24 months (FAO, 2019). In Tanzania, the growing season is usually 10 to 13 months (Interview, KSC, 2015). Irrigation can be used when rainfall is scarce to encourage growth, and a specific type of soil is not required for cane. The cane's sucrose content is approximately 10 to 12% of the total weight of fresh cut cane

(FAO, 2019), and harvesting at specific times can yield higher sucrose contents. Thus, the timing of sugarcane harvesting is important and can be an issue of contention in contract farming.

### 5.3.1. The Empirical Cases: Kilombero Sugar Company Limited and Mtibwa Sugar Estates

This section introduces the two sugar contract farming cases in the district of Morogoro:

Kilombero Sugar Company Ltd. and Mtibwa Sugar Estates.

### 5.3.2 Kilombero Sugar Company Ltd.

In Tanzania, Kilombero Sugar Company Ltd. (KSCL) was previously a state-owned mill operating since 1962 (Nsindagi and Sesabo, 2017). It was privatized in 1998 and purchased by the then-South African owned company, Illovo Sugar (now part of AB Sugar, which is owned by Associated British Foods). KSCL is the largest sugar producer in Tanzania (SBT, 2016). The company is private, but the Tanzanian government maintains a 25% stake. The company owns 12,000 hectares of land, of which around 9500 are currently under cultivation, spanning two districts (Kilombero and Kilosa) with two mills (Interview, 2015). The company not only employs over 800 permanent employees and around 2000 seasonal workers but also works indirectly with over 9000 contract farmers, who cultivate approximately 14,600 hectares (Illovo Sugar, 2014). Seventeen associations were registered with KSCL at the time of the fieldwork, and they reported 9393 members.<sup>38</sup> The company purchases sugarcane from outgrowers through membership in an association working with KSCL. KSCL contracts out transporting cane to the mill to UNITRANS, a South African company; and it has steadily increased its production over time, from around 98,000 tons of sugar annually in 2003 to 132,000 in 2017 (Illovo, 2014; SBT, 2016). In fact, the mills have almost reached production capacity. The company tries to send approximately half its outgrower cane and half its company-produced cane to the mill. However, given the problem of overcapacity, tensions have developed among outgrowers, as well as between the company and outgrowers, because they have stated they were unable to get their cane to the mill in time because the company does not fully support the process (KSCL members Focus Group Discussions, 2015). This conflict is further exacerbated because

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<sup>38</sup> See Appendix C for a complete list of the associations.

outgrowers are burning each other's cane fields in an effort to push their sugarcane forward in the queue to the mill (KSCL Interviews, 2015).

When KSCL started employing contract farming labor, two original associations were working with KSCL: Ruhembe Cane Growers Association and Kilombero Cane Growers Associations. Over time, these associations began fragmenting; by 2015, there were 17 associations with over 9000 members. Joining an outgrower association requires a registration card as proof of being able to sell cane to the mill. When selling cane to the mill, contract farmers are paid on an individual basis based on a combination of sucrose content and weight (Interview KSCL, 2015). There are no formal requirements on the amount of land to be owned; the only stipulation is that the farmer is able to grow sugarcane, making formal entry barriers to contracting low except for membership fees, which are also usually low. Associations vary greatly in their level of inputs and cooperation in terms of harvesting and prepping the land. Associations are free to form and dissolve as desired because outgrowers are ultimately paid individually by KSCL.

### 5.3.3. Mtibwa Sugar Estates Ltd.

Mtibwa Sugar Estates Ltd. Mtibwa was a state-owned mill established in 1963 and was fully privatized in 1999 through purchase by the Tanzanian-owned Tanzania Sugar Industries Ltd. (Nisindagi and Sesabo, 2017). However, it is now owned by Superdoll, a part of the Super Group of companies with ownership linked to brothers Nassor Seif and Seif A. Seif. Superdoll's director is Seif A. Seif, who is also the director of the Association of Sugar Manufacturers in Tanzania (Superdoll website; The Citizen, 2018b). Superdoll is also linked to former members of CCM and has been rumored to be closely connected to political elites (West and Haug, 2017). Mtibwa sits on around 6,000 hectares of land and purchases sugarcane from what is estimated to be between 5,795 (West and Haug, 2017) and 6,300 contract farmers (Investment survey, 2014) although not every registered contract farmer delivers cane every year (West and Haug, 2017). These outgrowers are members of either Mtibwa Outgrowers Association (MOA) or Turiani Cane Outgrowers (TUCO). Outgrowers are not restricted to being members of only one association, and members often switch sides depending on whom they sell their sugarcane to each year. The barrier to entry into Mtibwa is also low. Sugar production in Mtibwa has been

inconsistent over time, with a production of around 37,000 tons in 2003, up to 49,000 in 2006, and back down to 26,500 in 2014.

## 5.4 Differentiation of Land within the Local Population

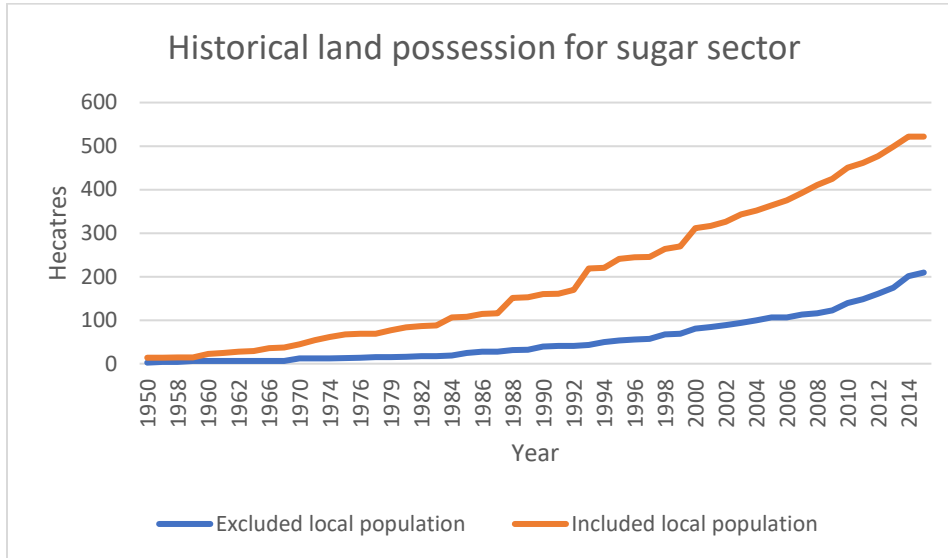
This section discusses the differentiation surrounding land acquisition and possession in the rice and sugar sectors at the local level between the included and excluded members of the local population. It is based on presentations of empirical data from the four cases. This is valuable information because land acquisition differentiation is arguably both a characteristic and an outcome of contract farming schemes. In contract farming, and throughout this dissertation, land plays an important role because it is a major resource sought after by investors, contract farmers, and other members of the local population, as well as by local and ruling elites. It is important in understanding the contract farming schemes' potential outcomes and the processes of exclusion and inclusion. Specifically, the differences between the excluded local population and the included contract farmers are characteristics of the contract farming schemes and help explain what is happening in the sugar and rice sectors among contract farming schemes in Tanzania. The differentiation within the local population was likely present before investing in contract farming and is exacerbated by the contract farming investments themselves. Examining this differentiation is helpful in understanding how the excluded and included local population members differ in the different sectors. The data was aggregated across each sector to understand the overall patterns of differentiation between the sugar and rice sectors. The data shown in Figures 5.1 through 5.6 are from the database of household surveys. I have analyzed this data using Excel tools to see empirical patterns of land accumulation over time, both in terms of the total amount of land as well as how the land was acquired.

### 5.4.1. Land Possession over Time

In this section, trends in land possession over time across the two sectors and between the included and excluded local populations are examined to see how much land households have gathered over the years. Figure 5.1 shows patterns of overall historical land possession in hectares to see both the difference in the amount of land accumulated between the included

and the excluded population groups and how amount of land possessed by these two groups differs historically.

**Figure 5.1 Historical land possession (in hectares) for the sugar cases, KSCL and Mtibwa**



*Source: Household surveys, data combined from the KSCL and Mtibwa cases.*

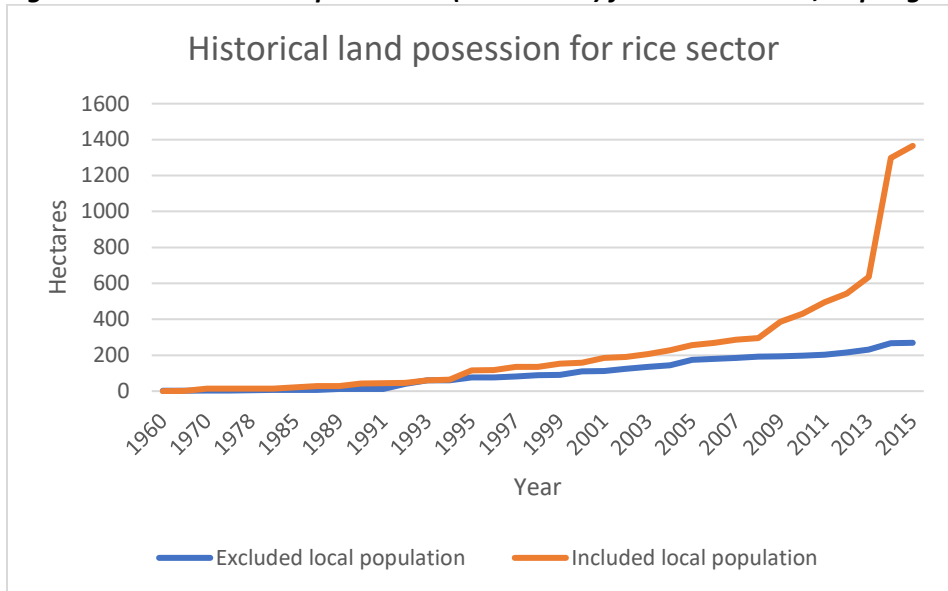
*Shows total number of hectares for the two sampled groups: Included local population (contract farmers) (n= 183) and excluded local population (n=175) in sugar sector cases KSCL and Mtibwa. Each year reflects the number of hectares the two groups reported owning for that year.*

In Figure 5.1, the first year is set at 1950, the first-year survey participants reported having land. This figure shows that land possession among the included local population (the contract farmers) are higher than among the excluded local population in the sugar sector. Contract farming may be one factor contributing to this difference because contract farmers reinvested in additional land with income from contract farming (as discussed in Chapters 6 and 7). Furthermore, privatization happened in 1998 (KSCL) and 1999 (Mtibwa), when the included local population's land was already about four times as high as the excluded local population's. This move to privatization possibly reflects what the contract farming literature suggests—larger farmers are often preferred by investors involved in contract farming schemes (Bijman, 2008; Key and Runsten, 1999). This is possibly a factor in determining who joined the sugarcane contracts because, while not a formal requirement, land access was a problem for the excluded local population. The patterns shown in this figure also further support the assumption that differentiation might have been present in these two groups before contract farming entry. This

finding is consistent with the assumptions in some contract farming literature, which shows how contract farming sometimes favors farmers who are already better off or have a greater level of basic resources compared to their neighbors (Korovkin, 1992; Little, 1994).

For the rice sector, Figure 5.2 shows a different picture of land possession historically.

**Figure 5.2 Historical land possession (in hectares) for the rice cases, Kapunga and MRKS**



Source: Household surveys, data combined from the Kapunga and MKRS cases.

Land accumulation is shown in hectares for both the included (n=95) and excluded local populations (n=110) in the rice sector cases MKRS and Kapunga. Each year reflects the number of hectares that the two groups reported having in that year.

In both the rice and sugar sectors, the included local population possessed much more land than the excluded local population. In contrast to the sugar sector, differentiation between the two groups is not clearly visible until the late 1990s, corresponding with the time Kapunga started offering contracts in the early 2000s (Interview with Kapunga, 2015). Kapunga contract farmers' average land holdings were so high in contrast to the surveyed contract farmers' from MKRS (27.86 HA at the time of fieldwork versus 3.25 HA, respectively) that a significant portion of land possession can probably be attributed to the Kapunga outgrower cases. While there seems to be an increase in land possession over time for the excluded local population, it is not close to that of the included local population. These patterns of differentiation between the included and excluded local populations are comparable to the sugar cases' differentiation.



However, a clear differentiation seems to have developed more recently for the rice cases than for the sugar cases, partly due to the Kapunga cases renting such large parcels of land to contract farmers. Thus, differentiation for the rice cases is at least partially influenced by being in a contract farming scheme.

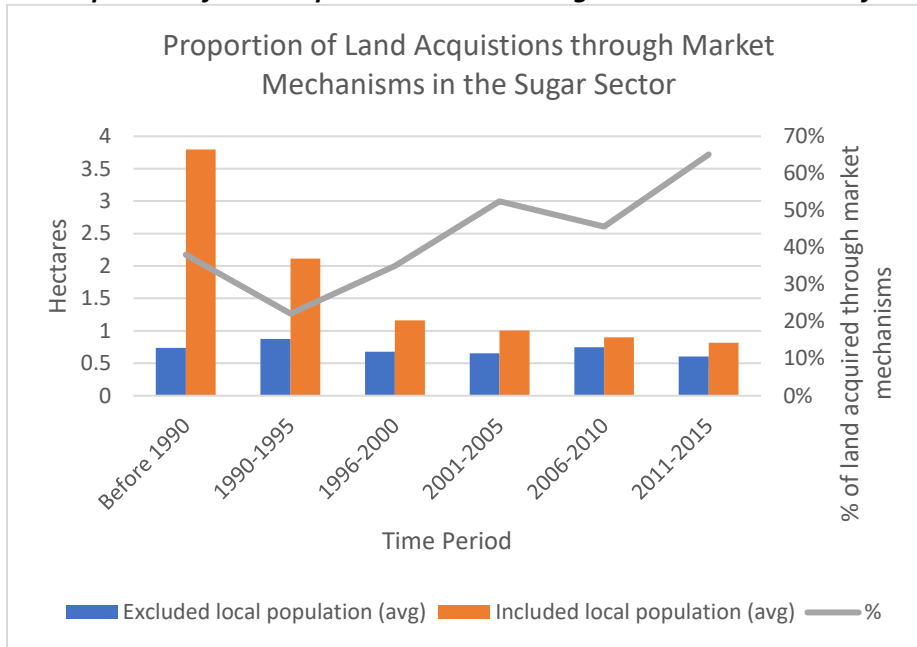
#### 5.4.2. Land Acquisition

This section explores how land acquisition determines what mechanisms farmers use to acquire their land holdings. The land acquisition methods are divided into two main approaches: *market mechanisms* and *new land enclosures*. Market mechanisms refer to buying or renting mediated by the market or the state (e.g., during privatization of state assets). *New enclosures* refer to land acquired by possessing 'natural' land (i.e., land that was abandoned and overgrown or previously unused, such as forest, shrubland, grassland, fallow land, etc.). Land that was officially open is enclosed through possession. Thus, the way in which land is acquired (i.e., by market mechanisms or through new enclosures) reveals from where it was acquired in these four cases and at what rate.

##### *Land acquisition through market mechanisms*

Examining how land was acquired over time (i.e., market mechanisms: buying or renting) provides insight into what type of land is available or was available in the cases' locations. The land acquisition presented in Figure 5.3 is not about whether the farmer has the title deed to the land, but rather how they accessed the land they use or possess. An examination of land acquisition in terms of market mechanisms reveals how trends have changed over time.

### 5.3 Proportion of land acquisitions made through market mechanisms for the sugar sector



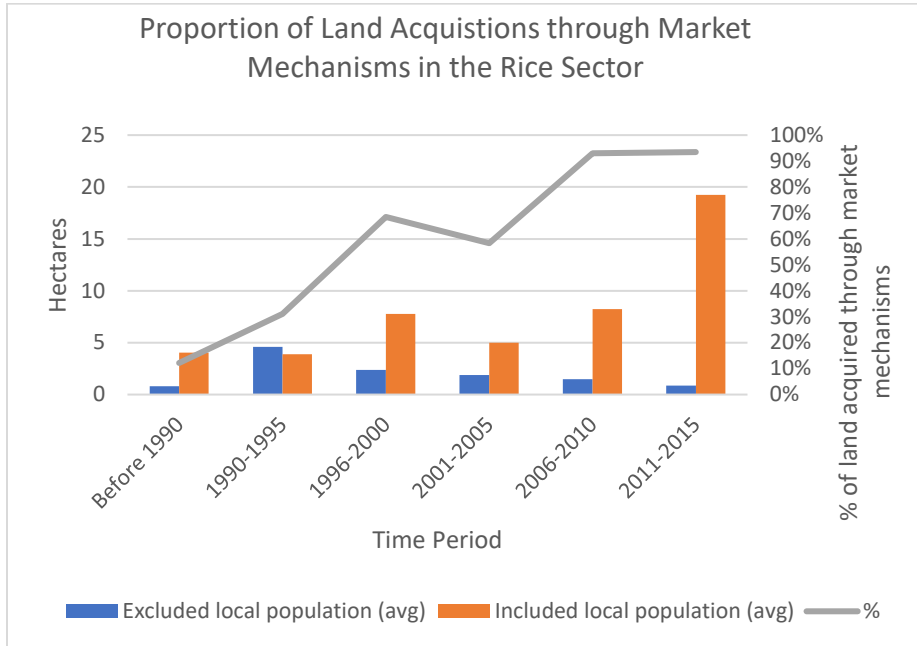
Source: Household surveys combining data from the KSCL and Mtibwa cases for the excluded local population (n=175) and the included local population (n=183). The % line shows the % of land acquiesced through market mechanisms compared to the entire land acquisition for each of the two groups.

As shown in Figure 5.3, the sugar sector’s proportion of land acquired through market mechanisms decreased over time for the included local population (contract farmers), whereas for the excluded local population it remained almost the same over time. The percentage of land acquired through market mechanisms among the total amount of land acquired went up over time. These trends could reflect an overall decrease in the availability of appropriate land for sugarcane production. This finding is consistent with that when comparing the initial total land ownership pre-1990 to the current total land ownership, it shows how the excluded local population has always had less land than the included, indicating a differentiation between the two groups.

Unlike the sugar sector, the rice sector shows an increase in the proportion of land acquired by the included local population (i.e., contract farmers) through market mechanisms as shown in Figure 5.4. This increase is partially due to the Kapunga case in which the investor rented or

leased out land to participants. However, the excluded local population’s land acquisitions through market mechanisms decreased.

**Figure 5.4 Proportion of land acquisitions made through market mechanisms for the rice sector**



*Source: Household surveys, combining data from MKRS and Kapunga cases for the excluded local population (n=110) and the included local population (n=95). The % line shows the % of land acquiesced through market mechanisms compared to the entire land acquisition for each of the two groups.*

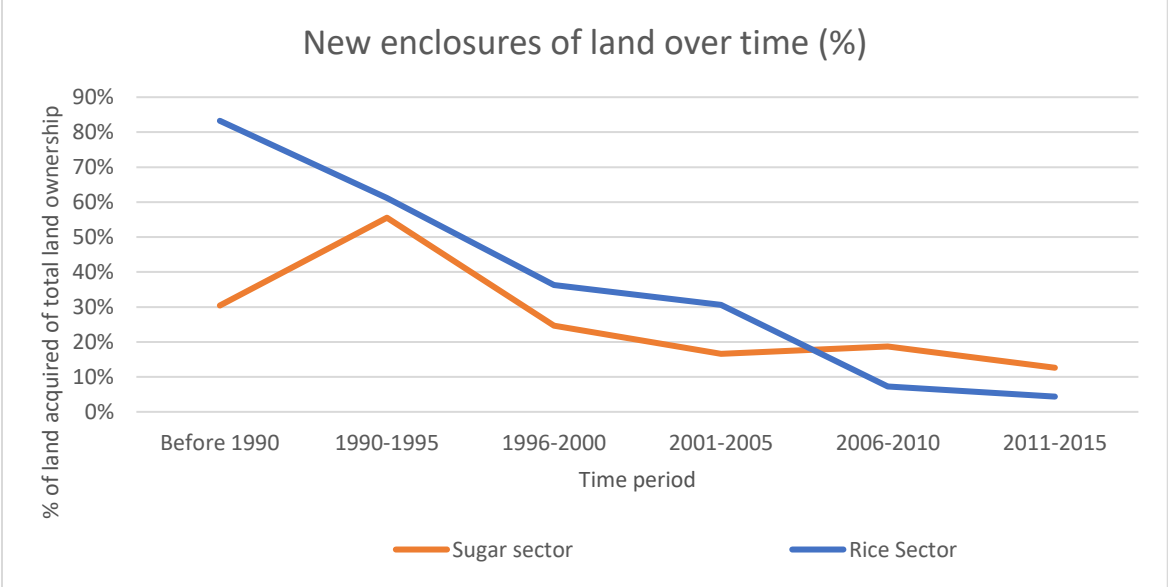
The first year is set at 1950, the first-year survey participants reported having land. In the rice sector, the difference between the included and excluded local populations seems to have become significantly greater over time, after being relatively equal in the 1990-1995 window. The percentage of land acquired through market mechanisms compared to the total land acquisition increased over time. This increase was, again, partly due to the Kapunga case; however, the excluded local population’s acquisition of land dropped significantly over the past 30 years. In the Kapunga case, the company had acquired the land after privatization; therefore, the land transfer reflected in this graph for the included local population indicates the land being temporarily transferred from the Kapunga investor to the Kapunga contract farmer. This land had originally been in the local population’s possession.

An examination of land acquisition through purchasing or renting reveals the trend for both sectors is that the included local population consistently acquired more land than the excluded local population over time. This trend could be due to contract farming itself as well as the contract farmers’ additional resources for acquiring land, either prior to or because of participation in the contract farming scheme. Another important point is that in the sugar case, the land acquisition through market mechanisms increased, whereas in the rice cases, it decreased for the excluded local population and increased for the included local population. For the entire local population of KSCL, Mtibwa and MKRS, the land acquisition through market mechanisms decreased over time, likely a reflection of the broader land issues in Tanzania.

*Land acquired through new enclosures*

*New enclosure* (forests, grasslands, wetlands, fallow land and shrublands) acquisitions of land, decreased over time for both sectors.

**Figure 5.5 Proportion of land acquired through new enclosures for the sugar and rice sectors**



Source: Household surveys, combined for both the excluded and included local populations in both sectors, rice (n=205) and sugar (n=358).

Figure 5.5 shows how land that was acquired that was previously either forest, grasslands, wetlands, fallow land or shrublands from new enclosures decreased over time for all cases. This

figure represents land acquired through both market mechanisms and other mechanisms, and it is designed to show specifically how much land that was previously unused has been acquired by the different sectors. Although the rice sector tended to acquire land from new enclosures of land at a much higher rate than the sugar sector did, the trend was quite similar in both sectors. This finding indicates that acquiring unused land was probably more difficult. This decreased land acquisition is probably a reflection of the rising concerns over land use and increased regulations in Tanzania (Abdallah et al., 2014; Sulle, 2017a).

For the KSCL case, fertile land in particular seemed to be becoming scarce, given, for example, the following focus group response:

The main reason for me not involving myself in sugarcane farming is the lack of suitable and sufficient land. The farms that we have are very sandy, these are not so suitable for growing sugarcanes, but they are favorable for rice. So, to join in in sugarcane farming, you have to first get the right farm with the right soil. (KSCL excluded local population focus group, August 19, 2015)

According to this response, one of the main issues is available and fertile land, which is difficult to access, but is an important asset for entering into contract farming in the sugarcane sector. Tension over land are not uncommon in Tanzania; and as noted by Sulle (2017a), the following complex issues exist: local conflicts, foreign investors, and political elites. For example, conflicts between farmers and pastoralists in the regions of Mbeya and Morogoro have increased in recent years (Mwanfupe, 2015; Walwa, 2017). This increase also reflects concerns regarding a decrease in the amount of readily available land in Tanzania (Sulle, 2017a) at a rate reportedly faster than official accounts (Abdallah et al., 2014), thus indicating there is less land available in Tanzania than presented.

#### 5.4.3. Channels of Land Acquisition

While the previous section discusses land possession and acquisition, it does not examine the channels through which the land was acquired. Figure 5.6 shows which channels or points of access were used to acquire land. Each survey respondent was asked to list the method of

acquisition for each of the plots of land the household had access to. Since the number and size of plots vary greatly across cases, the data is presented in percentages to allow a more meaningful comparison between groups. The average plot size per group is shown in Table 5.3.

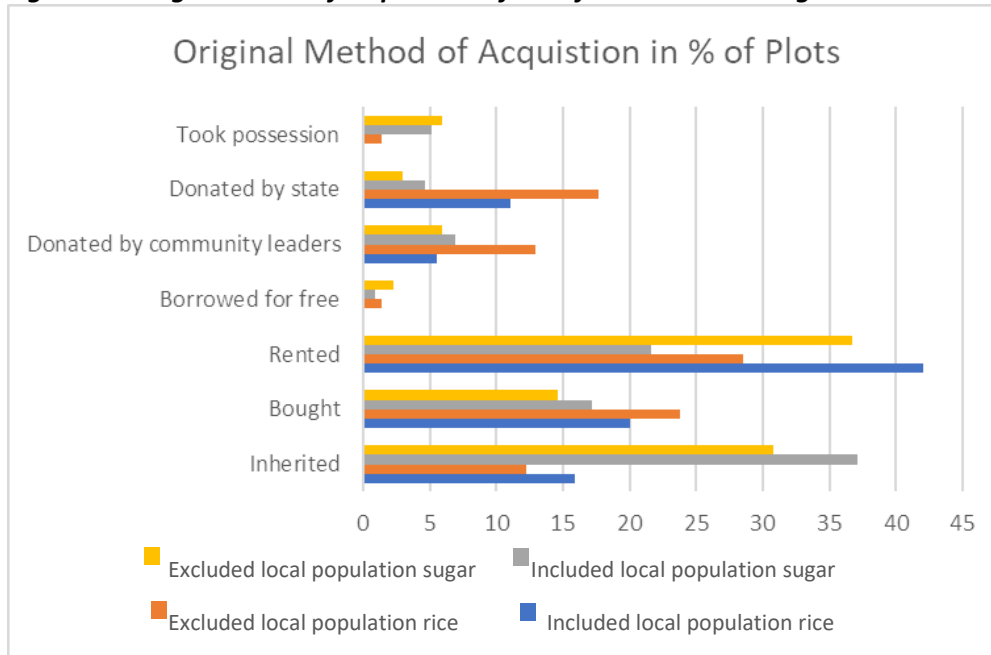
**Table 5.3 Average size of individual plots**

	<b>Average plot size (hectares)</b>
<b>Excluded local farmers in sugar cases</b> ( <i>n= 176</i> )	0.4
<b>Contract farmers in sugar cases</b> ( <i>n= 183</i> )	0.9
<b>Excluded local farmers in rice cases</b> ( <i>n=110</i> )	0.8
<b>Contract farmers in rice cases</b> ( <i>n=95</i> )	5.8

*Source: Household surveys for all four cases.*

For both sectors, the average size of the individual plots for the excluded local population is much smaller than for the included local population. While this study explores why plot sizes are differentiated, it is understandable that plot sizes are smaller given that the average land accumulation is lower. The high average for contract farmers in the rice sector is due to the Kapunga contract farmers' receiving large amounts of land through the contract. Figure 5.6 shows the original method of acquisition for all the plots reported in both sectors.

**Figure 5.6 Original mode of acquisition of land for the rice and sugar sectors**



Source: Household surveys. The data is combined in each sector to show percentage of respondents reporting different types of land acquisition methods: Excluded local population sugar (n=175), included local population sugar (n=183), excluded local population rice (n=110), and included local population rice (n=95).

Unlike Figures 5.4 and 5.5, Figure 5.6 categorizes the plots without considering the time dimension; instead, it addresses the origin, which can potentially be helpful in understanding differentiation. The excluded local population in the rice cases were the most likely to receive some donated access to land and were also very likely to rent or purchase land. The excluded local population from the sugar cases most often rented or inherited the land and were the least likely to have originally purchased the land. The contracted farmers from the rice cases were the most likely to rent, similar to the Kapunga case in that the contract farmers from Kapunga rented land from the investor as part of the contract and were the second-most likely to purchase land. The contracted farmers from the sugar cases were the most likely to inherit land, but the least likely to rent out land. This last observation might lead to some level of differentiation in status before involvement in the contract farming scheme, indicating that farmers involved in sugarcane contracts were more likely to already have secure access to land before entry because it was already family land. If donated land is considered a less “wealthy” way of accessing land, then the higher rates of donated land access for the excluded local

population from the rice cases group may also indicate previous differentiation, However, the range of methods that households use to access land reflects the complexity of accessing land and further emphasizes how differentiation in land origin is present across the schemes. This differentiation in land origin is also important because land is an important resource for any kind of agricultural production; and, as was the case for many of the excluded local population members, not having access to enough land is an important exclusion factor for why they were unable to access the scheme, as discussed in the next section.

In summary, what is the difference between land for the sugar and rice sectors, and why does differentiation matter? The contracted farmers (i.e., included local population) possessed far more land over time than the excluded local population. Furthermore, the sugar sector's land possession decreased over time, and the rice sector's split because of the Kapunga contract farmers' renting large plots of land through the contract farming scheme. This differentiation is important because land is an important asset that affects whether or not a farmer enters contract farming.

## 5.5 Conclusion

This chapter has addressed this working question: *How are the rice and sugar sectors important for Tanzania's agricultural development, and what describes the relevant contract farming schemes in these sectors?* The rice sector is important for Tanzania due to its potential to increase food security and eventually lead to exports; food security is particularly important in light of climate change concerns. The sugar sector is important for Tanzania to address due to the need to increase production to meet national demand as well as the potential for exports and perhaps, once again, as a biofuel. Tanzania's agricultural sector is important as the main livelihood source for a large portion of the population and in Tanzania's future development plan and growth. However, the potential for sugar and rice has not been reached because of both insufficiencies in the agricultural sector and national problems (e.g., illegal importation of these crops, further undercutting the national sectors). If growth is achieved in these two sectors, particularly through contract farming, it could translate into further transformation



across Tanzania, thus further emphasizing the importance of studying these sectors at the local level. Therefore, the four cases in this dissertation are important nationally as well as locally in terms of communities and livelihoods. Within these four cases, there is variation as to who the investors and contract farmers are as well as the context of conflict. There is differentiation in how land is distributed across the cases although contract farmers always have more access to land than excluded farmers do.

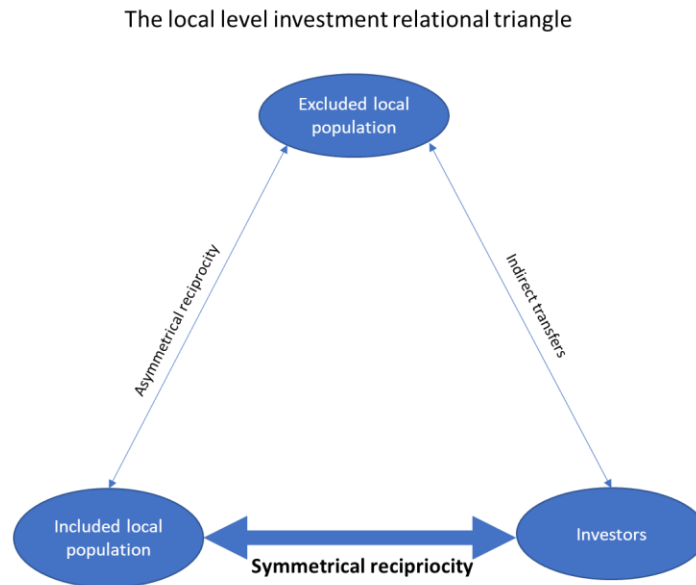


# Chapter 6 The Rice Contract Farming Schemes

## 6.1 Introduction

This chapter explores rice contract farming schemes in Mbeya. As noted in Chapter 5, rice is an important food crop for the Tanzanian economy as well as for smallholders to provide food for their families. This chapter (a) examines two rice cases, Kapunga Rice Plantation Limited and Mtibwa Sugar Estates, and (b) analyzes what characterizes the relationships between contract farmers and investors by identifying the different exchanges and outcomes. Using the local-level investment model presented in Chapter 3, I focus on the relationship between contract farmers (included local population) and investors, which is valuable both in addressing gaps in the literature regarding the nature of relationships between contract farmers and investors in contract farming and in considering power's manifestation in these relationships. The relational model is used to discuss the different exchanges and outcomes as well as to understand how these exchanges happen and what drives the contract farming schemes. Specifically, this chapter is guided by the following question: *What is exchanged in rice contract farming schemes in Tanzania, and how do these exchanges influence the outcomes of these contract farming schemes?* This is addressed using the local-level investment relational triangle proposed in Chapter 3 and shown in Figure 6.1.

**Figure 6.1 The local-level investment relational triangle**



The relationship between the included local population and investors (indicated in bold in Figure 6.1) can be described, I will suggest, as one of *symmetrical reciprocity*—i.e., exchanges involved wherein each group of actors benefits from the contract farming relationship and, thus, is able to maintain exchanges that are in many ways symmetrical—i.e., each side contributes enough to keep the other side engaged. However, as is the case in contract farming, the contract farmer and investor are not always on equal terms (Sivramkrishna and Jyotishi, 2008; Korovkin, 1992; Glover, 1990). The concept of symmetrical reciprocity is inspired by Sahlins’ use of “balanced reciprocity” (1972, p. 176) in that exchanges are made between actors in a way that both sides receive enough to keep them actively interested and engaged in the relationship.

The two cases of Kapunga Rice Plantation Limited and Mtenda Kyela Rice Supply Company Ltd. are examined to determine whether the relationships in these cases can be characterized in the same way, thus allowing for an understanding of what drives contract farming schemes. In addition, the distribution of power in these relationships is considered by applying Khan’s (2010) perspective on *holding power*. Based on identifying the contract farming schemes’ exchanges and outcomes, which include inputs, credits, extension services and land, I argue

that symmetrical reciprocity between the investors and the contract farmers is present in the Kapunga and MKRS cases despite differences in the structure of the schemes and the attributes of the main actors. The Kapunga scheme contracts a small group of contract farmers and rents their land out to them, whereas the MKRS investors have no land themselves and rely on purchasing from farmers who do have land.

This chapter consists of the following sections. After the surveyed contract farmers in the two cases are introduced, the exchanges between the investors and the contract farmers are discussed. Next, the outcomes and how the contract farmers entered the scheme are examined. This will be followed by an analytical section that explore whether the cases can be described as having symmetrical reciprocity and how holding power is constituted in and through the specific contract farmer-investor relationships. This chapter lays the groundwork for further discussion of the excluded local population's role in the overall contract farming investments, which will be examined in Chapter 8.

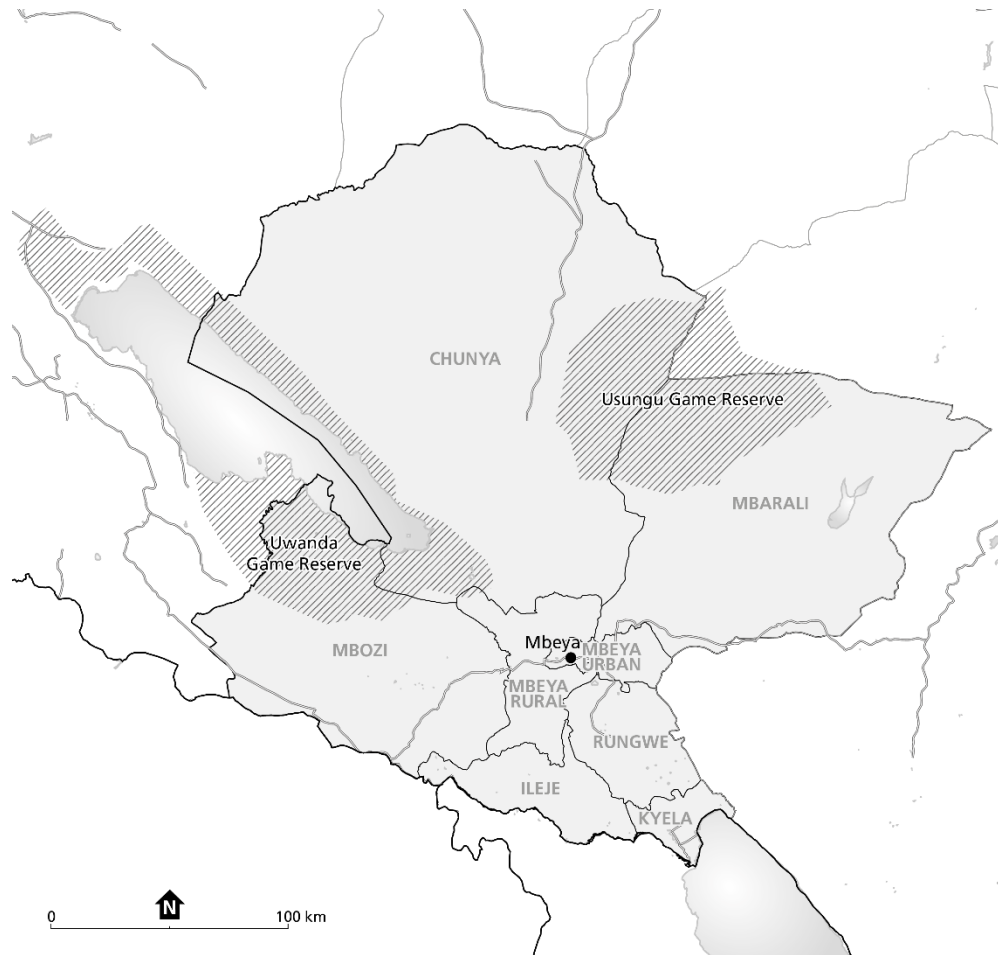
## 6.2 Relationships between Contract Farmers and Investors: Exchanges and Outcomes

This section focuses on the relationships between the contract farmers and the investors in the two rice investment cases Kapunga and MKRS. By examining the two surveyed groups for the two cases (i.e., the contract farmers from MKRS and those from Kapunga), this section explores the exchanges between the contract farmer and the investors; the different outcomes; and finally, how farmers accessed the scheme to understand how contract farmers entered the investment. Specifically, for exchange relations, inputs, land, extensions services, and access to markets in exchange for the use of land and rice are examined. Identifying the different exchanges and outcomes will allow for discussions of the relationships themselves as well as of how the cases relate to the contract farming literature.

### 6.2.1. The Rice Contract Farming Schemes

Both Kapunga and MKRS are located in the Mbeya region, which is shown in Figure 6.2:

**Figure 6.2 Map of Mbeya Region**



*Source: Universiteit Utrecht, Faculty of Geosciences | Dept. Communication & Marketing - Cartographic design*

Mbeya is the largest city in the Mbeya region, and the surrounding districts are where rice growing is common and the location of the two rice cases in the district of Mbarali. Table 6.1 gives an overview of some key characteristics of the contract farmers surveyed from the Kapunga and MKRS cases.

**Table 6.1 Household Characteristics of Contract Farmers in the Rice Cases**

<b>Contract farming group</b>	<b>Average household size</b>	<b>Most common highest completed level of education by household head</b>	<b>Average number of livelihoods per household</b>	<b>% of female headed households</b>	<b>Average land holding per household (hectares)</b>
<b>Kapunga contract farmers (n=49)</b>	3.5	35% secondary school 16% university	3.8	2%	27.7
<b>MKRS contract farmers (n=46)</b>	5.4	62% primary school	3.5	10%	3.6

*Source: Household Surveys for Kapunga and MKRS contract farmers, 2015*

From Table 6.1, it can be seen that the Kapunga and MKRS contract farmers are similar in their average number of livelihoods. The average household size is much higher for the MKRS contract farmers and the Kapunga contract farmers have a higher level of education as a group among household heads. It is not common for women to head these contract farming households. The Kapunga contract farming scheme is unique from the other cases in this study as the 49 farmers from the Kapunga tenants surveyed in this study rent the land they use for rice production from the Kapunga Rice Plantation Ltd. Thus, the company owns the land the contract farmers use. These farmers have, on average, access to 27.7 hectares of land each, of which, on average, 27.4 hectares are rented from the Kapunga investor, so they depend on access to the contract farming scheme from the company. This group is unique geographically in that the majority of these contract farmers are located somewhere other than their leased farmland. Thus, they are not in regular contact with the rice fields. Only 24 Kapunga contract farmers are located in the actual village of Kapunga. Of the total Kapunga farmers, 16% are located in major cities. The location of the Kapunga contract farmers is relevant in light of the long-term conflict between the investor and the local population over the land. Local farmers were dispossessed of the land when the state gave it to the investor, and the conflicts that arose because of this continue today (Greco 2015b; Kahango, 2015). Based on responses to the

household surveys, Table 6.2 provides an overview of where the Kapunga farmers contracting with the company are physically located.

**Table 6.2 Location of households of the Kapunga contract farmers group<sup>39, 40</sup>**

Location of household residence	Number of households in locality	Approximate distance from Kapunga village/land in KMs
Kapunga	24	Located on land
Chimala	11	18
Ubaruku	5	30
Mbeya	3	70
Makambako	1	80
Dar es Salaam	4	610

*Source: Individual household surveys for the Kapunga farmers group, 48 responses.*

The Kapunga scheme is marked by significant conflict over land that the government gave to the investor, as discussed in Chapter 5 (Therkildsen, 2011; Kahango, 2015) The Kapunga contract farmers have an average of 3.76 livelihoods per household, and 71% of them had at least one source of off-farm activity.<sup>41</sup> Livelihood activities (see Scoones, 1998; Ellis, 1998; de Haan and Zoomers, 2005) include anything that supports a household's income or provision. The number of livelihoods a household has can indicate a household's ability to withstand risk (Scoones, 1998; Ellis, 1998). A higher number of households indicates that a household is less susceptible to crises. In short, the Kapunga contract farmers are often not geographically located at the investment site. Furthermore, they have a number of livelihood opportunities and often have off-farm activity, indicating they are better able to stand up to risk.

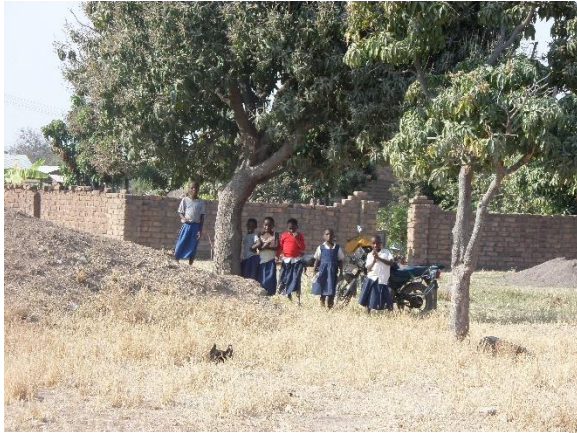
<sup>39</sup> One household is not included because their responses were unclear as to whether they lived in the Mbarali district but not in the Kapunga village.

<sup>40</sup> Distances were estimated using Google Earth, 2018. Exact distances were less important than illustrating the distance between Kapunga land and the farm itself.

<sup>41</sup> Off-farm activity was considered anything not related to the growing and selling of produce and food (for example, selling vegetables was not considered off-farm but having a small shop was). Studies show that diversifying to off-farm activities can increase households' ability to withstand risk (de Haan and Zoomers, 2005).



The surveyed group from the MKRS contract farming scheme contract farmers project, consists of 46 households, representing close to the entire population of households engaged in formal



*Schoolchildren curious as to our presence, Mswiswi. Photo by author, 2015*

contracts with MKRS (around 50 at the time of the fieldwork; however, according to recent contact with an MKRS employee, that number has risen to 200 with the contracts including improved seedlings, fertilizer, training, and credit).<sup>42</sup> These farmers use land they own or

have acquired through other sources; thus, in

contrast to Kapunga, MKRS does not own the land these contract farmers use. MKRS contract

farmers have on average 3.25 hectares of land per household, substantially less than the Kapunga farmers'. The MKRS contract farmers have an average of 3.5 livelihood activities per household and 52% are engaged in off-farm livelihood activities; both types of activities can indicate the ability to withstand risk (Scoones, 1998). Unlike Kapunga, MKRS does not have a history of known conflict, perhaps because the contract farming scheme is still relatively new and/or MKRS does not own land; thus, having contention associated with this scheme is not yet possible.

MKRS's employees conduct agricultural field days in the various districts where they educate the local sourcing communities about farming techniques; their instruction goes beyond just the contract farmers to the entire local communities. Additionally, fuel costs are supplemented for state extension officers who travel far to the various districts. For the input schemes, MKRS used around 3.4 billion TZS (\$150,000 at 2015 level) to procure various inputs and training in 2014. Plans to expand include building a mill closer to where the rice is sourced. Profit from 2014 was 1.9 billion TZS (about \$89,000 at 2015 level). MKRS purchased 6000 MT of rice in

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<sup>42</sup> Interview September 2018.

2017 for processing (Interview, 2018) and currently produces 3500-4000 MT of rice per year. MKRS targets domestic markets through retail shops primarily in Mbeya and Dar es Salaam.<sup>43</sup>

### 6.2.2. Concrete Exchanges: Access to Inputs, Extension Services, and Land

Concrete transactions in the form of inputs (grouped together here as access to irrigation fertilizers, pesticides, seedlings, machinery, and extension services) often lead to productivity changes, as well as sources of possible welfare improvements through these productivity changes (Bellemare, 2012; Kirsten and Sartorius, 2002). According to the contract farming literature (Key et al., 1999; Dixie et al, 2014), input access and exposure to learning and technology are some of the main benefits of, and thus motivators for, farmers' joining contract farming. Additionally, the provision of these inputs and services helps the company secure higher-quality rice, a key reason companies establish contract farming schemes (Kirsten and Sartorius, 2002; Bolwig et al., 2009).

In the household surveyed during fieldwork,<sup>44</sup> respondents identified their use of inputs, indicative of some of the concrete exchanges (see Table 6.3). Access to and use of inputs provided by investing companies are separated here into a series of concrete inputs for production, and the inputs exchanged in the contract farming relationship are shown in the row labeled "accessed through company" in Table 6.3.

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<sup>43</sup> Company survey and interviews. A follow-up telephone/email interview was conducted with the son of the owner of MKRS in September 2018 for updates on key units.

<sup>44</sup> See Appendix C for the survey.

**Table 6.3 Usage and access to inputs for contract farmers, in % of the entire group of farmers.  
n=number of respondents**

<i>Input Table</i>	<i>Fertilizer</i>	<i>Improved seedlings</i>	<i>Pesticides</i>	<i>Tractor</i>	<i>Irrigation</i>
<b><i>Mtenda n=46</i></b>					
<b><i>Used input</i></b>	<b>46</b>	<b>9</b>	<b>36</b>	<b>29</b>	<b>11</b>
<b><i>Accessed through company</i></b>	<b>23</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b><i>Accessed through shops</i></b>	<b>23</b>	<b>8</b>	<b>36</b>	<b>29</b>	<b>0</b>
<b><i>Irrigation only: accessed through government or scheme</i></b>					<b>11</b>
<b><i>Kapunga n=49</i></b>					
<b><i>Used input</i></b>	<b>48</b>	<b>47</b>	<b>48</b>	<b>41</b>	<b>40</b>
<b><i>Accessed through company</i></b>	<b>24</b>	<b>43</b>	<b>3</b>	<b>19</b>	<b>3</b>
<b><i>Accessed through shops</i></b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>23</b>
<b><i>Irrigation only: accessed through government or scheme</i></b>					<b>14</b>

Source: Household surveys for contract farmers in MKRS and Kapunga.

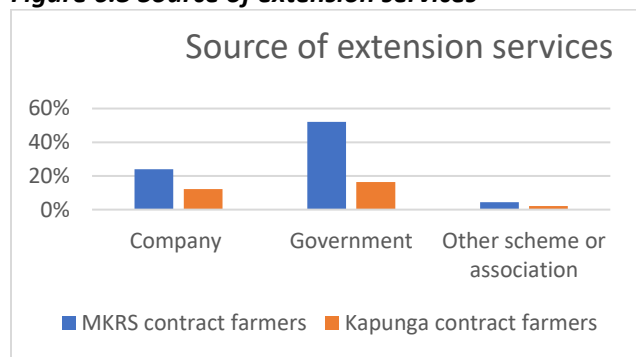
As shown in Table 6.3, almost all the respondents within the two contract farming schemes use fertilizer regularly, and most also use tractors and pesticides. The vast majority of Kapunga respondents use improved seedlings provided by the company, while only a small percentage of MKRS respondents use improved seedlings provided by the company. This difference is due, in part, to the contracts' content; improved seedlings are a regular part of Kapunga contracts, unlike the MKRS contracts. For both companies, fertilizer is sourced equally from the company and other suppliers, indicating that while fertilizer is a main exchange item from company to farmer within the contract, farmers obtain additional inputs. While the Kapunga contract provides more types of inputs, both groups state that they purchase additional inputs outside the contract, possibly indicating that either the companies do not offer enough affordable inputs within the contract to satisfy production needs or that the contracted farmers have additional resources to purchase additional inputs. Table 6.3 also shows that the contract itself matters because the Kapunga farmers receive more inputs than the MKRS farmers—i.e., the Kapunga contract offers more concrete inputs. The MKRS contract does not provide for pesticides, which are sourced from local shops. It is important to note that while these inputs

were not exclusively accessed through the contract farming schemes, the schemes' ability to provide a pathway (even if not the only one) to inputs was not diminished.

Irrigation access is primarily provided through irrigation schemes although according to the survey only about 25% of MKRS farmers claimed to use irrigation canals. However, according to the survey responses, 41 households out of the 46 farmers in the MKRS contract farmers group are members of an irrigation scheme; thus, there is a mismatch between the number of farmers claiming membership to an irrigation scheme and the number of farmers who have irrigation access. Unlike the MKRS farmers, the majority of Kapunga farmers indicated irrigation usage, in contrast to the low percentage of MKRS farmers.

Access to extension services indicates access to technical knowledge and opportunities for increased yields as well as improved farming techniques. MKRS offers some services and supports extension services in the area; but to my knowledge, Kapunga does not (based on fieldwork from 2014-2015). Figure 6.3 presents where contract farmers received their training in terms of extension services.

**Figure 6.3 Source of extension services**



*Source: Household surveys for MKRS (n=46) and Kapunga (n=49) contract farmers.*

Compared to Kapunga farmers, the MKRS respondents were more likely to receive extension services, primarily through government extension officers. The irrigation scheme or rice associations provided little access to extension services. Therefore, while the contracts with both MKRS and Kapunga allowed for exchange of extension services, government extension officers were the primary contributors of training for these farmers. The BMGF (2013) report

indicated that MKRS trained smallholders in order to increase yields; while this information seems to be correct, the data suggests that only a limited number of farmers have received improved farming techniques training through MKRS. Based on information gained during fieldwork, it became clear that MKRS pays for state extension officers' transportation costs, bolstering the state's acceptance and ensuring that farmers get training and information which will potentially lead to higher quality paddy and greater yields (Interview with MKRS, 2015).

### 6.2.3. The Lure of Exchanges: Motivation Behind Entering the Contract

Examining the motivation to enter into the contract sheds more light on what contract farmers expect to gain from entering. Table 6.4 provides the farmers' reasons for signing contracts with MKRS and Kapunga.

**Table 6.4: Attractiveness of contract: why farmers joined the contract farming scheme (in number of responses) \*\***

	<i>Market access/guarantee of payment</i>	<i>Access to inputs</i>
<i>MKRS (n=46)</i>	28	17
<i>Kapunga (n=49)</i>	45	12

*Source: Household surveys for MKRS and Kapunga contract farmers \*\*Respondents could select more than one response if relevant.*

The results suggest that the reasons farmers joined MKRS were in large part due to market-related issues such as access to a market and marketing guarantees related to having a secure buyer of their rice. MKRS employees stated that they targeted a few select communities of smallholders already organized into irrigation schemes when they sought contracts (Interview with MKRS, 2015). Farmers stated in surveys that they signed the contract due to access to market opportunities they would not otherwise have had for example through the state, indicating that most of the contract farmers with MKRS are in irrigation schemes providing them access to contracts through their formal membership with the irrigation association.

Market access for rice is problematic in the Mbeya region, and many farmers must resort to selling through a middleman at a low price (Interview with Raphael, 2015; Rice Council of Tanzania interview, 2015; Wilson and Lewis, 2015). Also, access to fertilizer is beneficial for farmers in order to access affordable agricultural inputs; such access is important in light of problems with implementing input voucher schemes in Tanzania (Kato and Greeley, 2016). Eighteen farmers who joined the MKRS contract scheme mentioned in interviews that this scheme was the only opportunity they had to access inputs and a stable place for marketing, further underscoring the lack of sufficient market access for farmers in this area.

#### *Land exchanges*

In reflecting on the exchanges as well as recalling the history of conflict in Kapunga, this section discusses land's role in the relationships between contract farmers and investors. As shown in Chapter 5, contract farmers had significantly more land in both rice cases than excluded members of the local population. Land is situated in these two cases quite differently; therefore, exploring land's role in the relationships provides interesting insight into how the contract farming scheme functions. Land also plays a role in the relationship between the investor and the entire local population, including the excluded local population, which will be discussed in depth in Chapter 8. Thus far, land is most significant in the Kapunga case, because it has been a central issue involving conflict, ruling elites, investors, and local populations (see Table 5.2).

By considering the land holdings for the two cases and the group of contract farmers, it becomes clear that the contracts facilitate access to land for a select or exclusive group of contract farmers, at least for Kapunga. For MKRS respondents, the average land holdings are 3.25 hectares per household, compared to 27.86 hectares for Kapunga. Therefore, Kapunga's contract farmers gain access to a substantial share of land through the contract without necessarily being embedded in the local communities, at least as evidenced by their physical location (see Table 6.2). Out of the Kapunga group of contact farmers, 46 plots were reported, all varying in size from a few hectares up to hundreds with an average of 27.7 hectares. On average, 27.4 of those hectares were from Kapunga; therefore, the contract farmers do not

own much of their land, which fits with that many of these farmers live in larger cities separate from the rented land.

Compared to the MKRS farmers, the Kapunga contract farmers have on average access to eight times more land. MKRS land tenure, on the other hand, is mostly in the form of individual deeds. Out of 145 plots among the MKRS contract farmers, 83 are deeded to the contract farmers. Because most smallholders own the deeds to the land on which they grow rice, they have security of land ownership as opposed to most of the Kapunga outgrowers, who do not own the land. For Kapunga, the lack of secure land tenure is, arguably, not necessarily a problem because many of the farmers with contracts have access to other forms of livelihoods elsewhere that offer a secure income. For example, 25 of the farmers had at least one shop or restaurant in addition to their rice production, and 12 of the farmers had service employment (e.g., nurse, teacher, or government employee). In contrast, only three of the MKRS farmers had service employment, and only 11 had a shop or restaurant. Diversifying into off-farm livelihoods is considered a way to decrease risk in livelihood strategies (Scoones, 1998; de Haan and Zoomers, 2005). Therefore, the Kapunga contract farmers are gaining even more than the MKRS farmers and are still accessing large amounts of land. However, Kapunga's acceptance by the surrounding local community is limited by conflict over land and the company's presence.

MKRS does not have its own farmland nor is it located where the rice is sourced. The geographical separation between the company's headquarters and rice production was reflected in the comments of several farmers who have a contract with MKRS. They complained about MKRS not showing up to collect the rice as agreed upon in the contracts (focus group, 2015). Because MKRS sources from three different districts with only a small number of full-time employees, the lack of geographical proximity could have implications for the type of relationship it can establish with contract and other rice farmers in the sourcing villages. However, as stipulated in the contract, MKRS targets farmers with approximately 0.25 to 2 acres of land available for rice and reserves the right to inspect that land, which could be described as an indirect access to land as stipulated in the contract. It should be emphasized

that the tension in the Kapunga case is between the local community and the company, not among the contract farmers who became part of the rice scheme.

A former state farm's privatization along with the state provision of land from local populations gave the company authority over several thousand hectares of land. Therefore, the Export Trading Group owns the land used by the contract farmers, who are formally tenants of the land for the time of the contract. Two issues regarding the land characterize the Kapunga case. First, a small group of local elite power brokers, many of whom do not actually live in Kapunga, gained access to land as part of the contract farming scheme. Second, considering the extensive land deal history underpinning the question of land ownership in Kapunga, land has been exchanged among the state, the Kapunga company, and the local population. In contrast, since access to land is not exchanged in the concrete exchanges between the MKRS rice investor and the local populations, land has not played a significant role in the outcomes of the relationship between the contract farmers and the investor. The absence of land conflict between the company and the local populations might actually strengthen the relationship.

#### *Summary of exchanges in the contract farmer-investor relationship*

In summary, for MKRS contract farmers, the contract provided fertilizer and some access to extension services. Access to other inputs, such as pesticides and irrigation, was gained through shops or irrigation schemes because these were not offered in the MKRS contract. For Kapunga contract farmers, fertilizer, improved seedlings, and tractors were inputs received as part of the contract.<sup>45</sup> Thus, the Kapunga contract was more comprehensive than the MKRS contract in offering more services to the farmers, and land was exchanged through the Kapunga scheme.

### 6.3 Outcomes and access: Characterizing the Relationships between Contract Farmers and Investors

This section identifies characteristics of the relationship between contract farmers and investors based on what contract farmers receive or perceive to be helpful in the contract

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<sup>45</sup> Irrigation was also described as being mainly sourced outside the companies although the patterns, at least for Kapunga, are unclear.



farming scheme. It also discusses how contract farmers enter into the relationship with the investor, which is important in understanding the contract farming investment's impact on the entire local population.

For both groups, contract farmers perceived themselves as benefitting from the scheme (as suggested in Table 6.5). Even through Kapunga farmers were better off from the outset than MKRS farmers (due to their diverse livelihood, having more off-farm employment, and being from different locations), they were even more likely to see themselves as better off than the MKRS farmers saw themselves.

**Table 6.5 Perception of own situation since joining contract farming schemes.**  
**Are you better or worse off since joining the contract farming scheme?**

Scheme	Better	Worse	The same	No response
<b>Kapunga</b> <i>n=49</i>	90%	6%	2%	2%
<b>MKRS</b> <i>n=46</i>	61%	0%	2%	37%*

*Source: Household surveys for MKRS and Kapunga contract farmers.*

\*The non-response rate was high because many farmers felt it was too early to tell a difference since they joined less than a year before this study. The Kapunga farmers joined between 1997 and 2015, with the majority joining from 2009 onwards.

In their survey responses, the farmers explained that due to higher incomes, they could buy material items like bicycles, motorbikes, cars, and radios and could afford to spend more money on health and education. Two-thirds of the MKRS farmers cited an improved status after starting the contract farming scheme. However, given that it had only been a year, those who reported an improved status could have been anticipating what was to come. On the other hand, given the reasons for joining the contract, discussed in Table 6.4, they could have seen improvements in areas that were previously problematic, e.g., access to inputs and markets. Thus, farmers clearly indicated that they benefitted from contract farming investments.

When asked whether or not engaging in contract farming with rice allowed investment in other livelihood activities, 85% of the MKRS farmers and 94% of the Kapunga farmers responded positively. The types of activities farmers invested in varied, but the most common ones for the MKRS farmers were investing in a small business such as a restaurant or retail shop, purchasing

more land, or building more sturdy houses. Many MKRS farmers also attributed the ability to cover basic needs (e.g., housing, school fees, and health care access) to the profits they gained from rice farming (Household surveys for MKRS farmers, 2015). For Kapunga farmers, the results were similar, although owning more land was also a common outcome of rice farming; and there was more investment in additional farming than among the MKRS farmers.

### 6.3.1. Forming the Relationship with the Contract Farming Scheme

This section discusses how contract farmers gained access to the scheme. The cases show how relationships mattered in terms of inclusion, both through informal and formal networks.

Understanding how farmers gained access is important for understanding the overall effect of contract farming schemes, as well as their potential impact on differentiation. Understanding access also helps understand how excluded members of the local population are left out; this is important since differentiation can occur between the included and excluded local population members (further discussed in Chapter 8).

#### *Access to Kapunga contract farming scheme*

In terms of access to the contract, 63% of farmers at the Kapunga cited a connection to someone working at Kapunga, working as a contract farmer, or another personal connection to the company as a reason they started working with Kapunga (Household surveys with Kapunga contract farmers, 2015). Thus, an informal relationship allowed the majority of contract farmers access to the Kapunga scheme. Eleven of the Kapunga respondents were employed elsewhere in addition to their rice; four of these households had members who were employed as government workers, while one household had a teacher and one had a police officer, indicative of households with a higher social status (Household surveys with Kapunga contract farmers, 2015). Based on other indicators of wealth, such as land holdings, the Kapunga contract farmers were also better off; and some of them lived in different parts of the country than the farm's location, as mentioned earlier in this chapter. All of these factors likely indicate a different social class to that of MKRS's contract farmers. Kapunga contract farmers had to apply formally for access to the contract scheme; but since the majority of contract farmers had

some kind of prior relationship to the company, that relationship apparently mattered in terms of having their contract accepted. Thus, networking is important for getting into contract farming, as well as potentially undertaking more production due to resources and wealth. This information aligns with the discussion of how contract farming may attract farmers with more resources and who are able to undertake larger production (Bijman, 2008; Singh, 2002; Guo et al., 2005; Simmons, 2005).

#### *Access to MKRS contract farming scheme*

Forty-one of the households studied are participants of irrigation schemes in their local communities. When MKRS decided to start offering formal contracts, it targeted organized irrigation scheme associations first. By doing so, an entire group was addressed; and if the group received the support of the scheme's board, the members reasoned they would have more legitimacy as they pitched their contracts to scheme members (Household surveys with MKRS contract farmers, 2015; Interview with MKRS, 2015). For MKRS employees the use of irrigation schemes as a formal access point to contract farmers was important because it minimized farmer mistrust and fear by using the irrigation scheme as the collective bargaining group (Gibson, 2018). This reasoning is consistent with Barrett et al.'s (2012) assertion that companies in developing countries specifically target qualified farmers organized into associations or NGOs. In the MKRS case, these farmers were in an irrigation scheme, also indicating to the company that the social networks were potentially stronger for these farmers and, thus, indicative that they were suitable farmers for the scheme (Household surveys, 2015; Interview with MKRS, 2015).

Membership in the irrigation schemes is optional for villagers; but by being members, villagers have a voice in decisions made regarding the irrigation canals in their fields. The investor chose this approach (a) to find appropriate farmers and (2) to use the irrigation scheme as a vehicle of organization, which could lower the transaction costs for MKRS. The irrigation scheme's formal membership acted as the access channel for the contract farmers. Thus, organization matters greatly in establishing the contract farming scheme. For MKRS, the irrigation scheme as an

organized entity provided access for both the contract farmers and the investor. This finding resonates with what contract farming literature says about investors preferring to work with associations and about farmers benefitting more from being in associations (Sokchea and Culas, 2015; Barrett et al., 2012; Glover and Kusterer, 1990) as well as how collective bargaining functions as an important entity (Gibson, 2108; OECD, 2018).

## 6.4 Symmetrical Reciprocity in Contract Farming Relationships

Symmetrical reciprocity, discussed in Chapter 3, does not imply an equal relationship, but rather one that is characterized by exchanges that adequately satisfy both parties. This concept and the implications of applying it to the MKRS and Kapunga cases are discussed below.

### 6.4.1. MKRS Symmetrical Reciprocity

MKRS farmers gained inputs and access to markets and extension services. They reported that they were better off since starting contract farming and that the contract farming scheme met their need to find a place to sell their rice and allowed them to reinvest in other livelihood activities. The ability to gain access to inputs, while not the only source of inputs like fertilizers, is important in that the contract provided concrete exchanges that otherwise might not have been available to the farmers. The investor also provided the contract farmers with exchanges in the form of establishing agricultural field days and helping extension officers get to the villages where the contract farmers were located.

On the other hand, the company received product from identified and secure sellers through the contracts. In addition to the secure access to rice, MKRS also received indirect access to land according to the contract's stipulations of being able to inspect the land and paying for extension officers to go to the farmers. Thus, symmetrical reciprocity occurred because both sides contributed to and received something out of the relationship. Through identifying these specific exchanges and outcomes, the analysis shows what compels the contract farming scheme to continue. The exchanges and outcomes the MKRS contract farmers and investors experience are the driving forces behind the contract farming scheme. Because symmetrical

reciprocity is not static, the relationship could change if conflict were to arise (as discussed below regarding holding power).

#### 6.4.2. Kapunga Symmetrical Reciprocity

Like their MKRS counterparts, the Kapunga farmers were motivated by access to market opportunities when joining the contract farming scheme; but they stressed that they saw access as providing special profit opportunities due to the amount of land they could access and the stable access to inputs. The Kapunga contract farmers gained access to large plots of land, as well as inputs and guaranteed access to selling; perceived themselves to be better off after entering the scheme; and reinvested profits from rice contract farming in other activities. Kapunga investors, in turn, received high-quality rice that they could process at their mill (Interview with Kapunga employee, 2015). They outsourced production on their fields to other farmers, potentially lowering some of their transaction costs. They also determined that each contract should cover fairly large plots of land to be leased to the farmer, thus reducing their transaction costs by having fewer farmers with whom to negotiate. The Kapunga case is similar to the MKRS case in that the relationship between contract farmers and the investor can also be considered one of symmetrical reciprocity. Because of their job networks and resources, the contract farmers are well entrenched in the scheme and have thus gained additional benefits. The investor, in turn, has recruited farmers who will work their land and provide high quality product, meaning they can standardize their production, spreading production risk and managing labor costs. The symmetrical reciprocity that characterizes the contract farmer-investor relationship at Kapunga shows what drives the contract farming scheme. Again, whether and how this scheme will continue is uncertain; as mentioned for MKRS, symmetrical reciprocity is dynamic and can change over time.

#### *Exchanges that resonate with contract farming literature*

This chapter's empirical findings resonate with the contract farming literature and increase the knowledge of how contract farming schemes function, particularly in Tanzania. Contract farming is said to be beneficial when it can address market failures and inputs/services and can provide benefits to the contract farmers (Grosh, 1994; Bellemare, 2012; Maertens and Swinnen, 2009; Miyata, et al., 2009; Warning and Key, 2002). According to Tanzanian policies

and reviews of the rice sector (Wilson and Lewis, 2015; BMFG, 2012; Kato and Greeley, 2016), such inputs, services, and market access are important in the absence of sufficient input accessibility (Buur et al., 2017). While the schemes are still small, they may affect how the local rice markets function in these geographical locations, which is important in considering contract farming's potential role in terms of larger community or sector impacts. For MKRS, land tenure is in the hands of the farmers, reducing the farmers' risk when engaging in contract farming. The company also avoids potentially volatile conflicts which have caused major issues among large-scale investments in Tanzania, including Kapunga, because it does not have farmland itself; nor is it located near the rice-growing fields. This finding is also consistent with the literature regarding the advantages of farmers' engaging in contract farming as a way to access land without formal ownership (Oya, 2012; Minot, 2009).

The Kapunga farmers who joined the contract schemes were motivated by profit opportunities and access to inputs. Through their own relationships, the investors sought out contract farmers who could meet the standards of cultivating large tracts of rented land. Seeking out farmers with whom profits can be the greatest is considered a strategic move companies employ (Barrett et al., 2012). Kapunga may have chosen to grow through relationships in order to find farmers who could meet their standards. Thus, these schemes support the literature which shows that contract farming is beneficial not only in terms of access to inputs and markets but also to the contract farmers who are involved. For the majority of the 95 contract farmers in these cases (Household surveys, 2015), contract farming enriches their lives and livelihoods. The contract farming scheme's impact within the local community is discussed in Chapter 8.

## 6.5 Holding Power in the Contract Farmer-Investor Relationship

While symmetrical reciprocity exists in both the Kapunga and MKRS schemes, changes in power dynamics could change the characterization of these relationships, raising this question: How is power distributed and constructed between these groups of actors and can this indicate which actors might best survive conflict? When addressing power construction, *holding power* becomes a useful concept in understanding the power dynamics between different parties, and

it becomes particularly relevant when facing conflict. However, when focusing on the relationship between contract farmers and investors in the case of Kapunga and MKRS, any conflict is invisible or non-existent. The following section discusses how holding power might be present in these relationships per se and identifies elements that are important should conflict erupt.

#### *Holding power in the MKRS case*

Both sides in the MKRS contract farming scheme have a vested interest in the contract; thus, there is reciprocal interest in maintaining a balance in the relationship—i.e., symmetrical reciprocity. Holding power is about being able to “hold out” in the face of conflict, characterized by not only the ability to absorb and inflict costs but also organizational capacity and economic power. Given the scheme’s recent establishment, and the lack of land being exchanged within the contract farming scheme, there is little knowledge of potential conflict, i.e. holding power is not revealed in this particular relationship. However, it is important to note that contract farmers are organized and that the company has economic power, both being extremely important if conflict arises in the scheme. The contract farmers in MKRS are members of irrigation schemes, the point of access for the company, meaning that farmers are organized. If the farmers’ organizational capacity within the irrigation scheme is weak, the company may, in the face of a lack of organization or collective action, easily negotiate a better contract for itself.

However, since the irrigation scheme also acts as the contract farmers’ gatekeeper, the farmers’ organizational capacity could be significant. Furthermore, while the contract farming group is connected with MKRS through the irrigation scheme, the company could use thousands of other farmers as contract farmers, possibly indicating the investor’s ability to absorb any costs inflicted by the farmers in the irrigation scheme by sourcing from other farmers. Yet, the company benefits from having the contract farmers and shows a keen interest in continuing the scheme.<sup>46</sup> The farmers may continue to stay in the contract with MKRS, even

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<sup>46</sup> A follow-up email correspondence from 2018 demonstrated growth in the number of contract farmers with whom MKRS worked.

if terms become more unequal, due to, among other things, their increases in relative well-being and lack of other opportunities to sell their rice. Both groups of actors have holding power in the relationship; thus, such power is difficult to analyze without evidence of conflict in order to see how actors respond to tensions. However, the fact that MKRS must continue sourcing rice outside its contract farmers indicates that it has more holding power in that it has the option of finding new contract farmers due to the vast number of rice farmers in this region. On the other hand, if the MKRS contract farmers become better organized, their holding power might increase because companies are usually interested in working with farmers' organizations to negotiate lower transaction costs (Barrett et al., 2012; Glover and Kusterer, 1990).

#### *Holding power in the Kapunga case*

When thinking about holding power and the Kapunga case, different dynamics are at play. There is conflict over land given to the investors and taken from the local population (Greco, 2015b) (as discussed in Chapter 5); but it primarily involves the relationship between the excluded local population and the investor (as discussed in Chapter 8). What, then, can be said about the power relationship between the contract farmers in Kapunga and the investor? Many of the contract farmers working with Kapunga are well-off; and half of them are not physically located in Kapunga or nearby, with many living in larger cities farther away. Thus, many of these contract farmers have their own employees to whom they have outsourced the farming on Kapunga's rented land. Networks to the company further demonstrate how this group of contract farmers is, at least to some extent, embedded with the company. These networks may change the power dynamics between the two groups of actors. The surveys and interviews revealed no conflict between the contract farmers and the investors. Unlike MKRS, which is a new contract farming scheme, some contract farmers have been working with Kapunga since 1998 or the early 2000s. Although the Kapunga scheme is not less likely to experience conflict than the newly formed MKRS, it has shown stability in the relationship over the years, possibly indicating that the relationship can be maintained in the face of conflict. This "relative" stability contrasts with the conflict between the excluded local population and the investor (discussed in



Chapter 8). However, considering the Kapunga investor's connection to political elites (Africa Confidential, 2013; Therkildsen, 2011) and the fact that the contract farmers, while embedded, are not organized, the holding power lies strongly with the investor.

## 6.6 Conclusion

This chapter has addressed the following research question: *What is exchanged in rice contract farming schemes in Tanzania, and how do these exchanges influence these contract farming schemes' outcomes?* In both cases (Kapunga and MKRS), significant exchanges are made between investors and contract farmers. Specifically, contract farmers receive exchanges in the form of access to inputs, markets, and credits, while investors receive access to higher quality product from a stable source. Land is exchanged in the Kapunga case because the contract farmers lease out the investor's land; and in the MKRS case, contract farmers own the land themselves although the investor is allowed to inspect the land on which rice is grown for sale according to the contract. The outcomes for the contract farmers include describing themselves as better off and being able to invest profits from rice farming in other activities, indicating a largely favorable experience for most of the contract farmers in these two cases. The exchanges and the subsequent positive outcomes that both sets of actors experience are enough to maintain the scheme, indicating that symmetrical reciprocity characterizes the relationship and drives the scheme to continue. These results also resonate with contract farming literature that shows how contract farmers benefit from participating in the contract farming scheme (see for example, Bolwig et al., 2009; Miyata et al., 2009; Bellemare, 2012). For both cases, holding power is likely be stronger on the investor's side and if symmetrical reciprocity started to break down and conflict arose the investors are better equipped than the farmers to maintain their own interests. To provide a full picture of how the contract farming scheme is characterized based on the three relationships in the analytical model, Chapter 8 focuses on the relationships within the local population and between the excluded local population and the investors.



# Chapter 7: Sugarcane Contract Farming in Morogoro

## 7.1. Introduction

The continued development of the Tanzanian sugar sector is important for the national economy, both as a cash crop, potential export commodity bringing in foreign exchange earnings and a key factor in the commercialization of smallholder production. This chapter explores the organization of contract farming in two specific contract farming cases involving Kilombero Sugar Company Limited and Mtibwa Sugar Estates, which are large-scale sugar mills and companies located in Tanzania's Morogoro region. The aim of this chapter is to look at two types of relationships involving the contract farmers: those formed between the sugarcane contract farmers' associations and the contract farmers, and those formed between the sugarcane contract farming associations and the investors from KSCL and Mtibwa. I will analyze these relationships by answering the research question: *What is exchanged in sugar contract farming schemes in Tanzania, and how do these exchanges influence the outcomes of these contract farming schemes?*

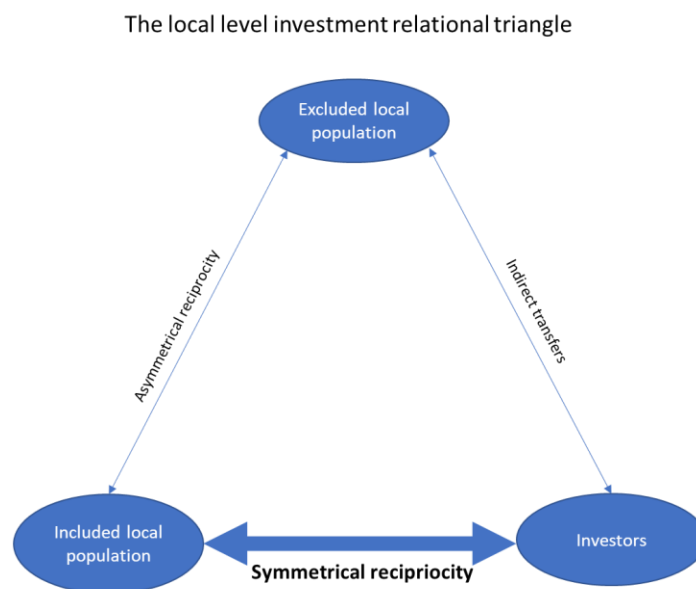
Exchanges and outcomes in these two specific cases will be discussed with reference to relevant contract farming literature and the analytical tools proposed in Chapter 3, specifically the local level investment triangle and holding power. Overall, this will help tease out what characterizes contract farming in the sugar sector of Tanzania.

I will apply the analytical model to determine whether the relationships are characterized by symmetrical reciprocity. *Symmetrical reciprocity*, inspired by the conceptualization of reciprocity by Sahlins (1972, pp. 174- 176), is about characterizing relationships by identifying exchanges in which each side receives something that is sufficiently favorable via the contract farming scheme for it to be relatively stable. So, when characterizing relationships as symmetrically reciprocal, it means a) that exchanges are taking place and each side is gaining something from the other, and b) that the relationship is "balanced" enough to maintain

interest and continued participation in the scheme. Identifying the outcomes and exchanges through this characterization contributes to understanding what drives the contract farming scheme. This does not mean that the two sides are equal, they are not, but that the exchanges are sufficiently compatible to make both parties continue the relationship.

In order to determine whether these relationships are characterized by symmetrical reciprocity or not, I first look at what is exchanged between the contract farmers, the associations, and the company. The role of the associations in the sugar cases is one of essential importance, and they are the third set of actors in the scheme. To accomplish this, I return to the analytical model developed in Chapter 3 focusing specifically on the relationship between included local populations and investors.

**Figure 7.1 The local-level investment relational triangle**



This chapter focuses on the relationship between the included local population and the investors exploring if *symmetrical reciprocity* develops. There is one important difference when focusing on this relationship in this chapter compared to in Chapter 6. For the KSCL and Mtibwa sugar sector cases, the included local population is made up of sugarcane farmers' associations,

wherein each individual household has membership in one or more than one (in the case of Mtibwa) association. The individual farmers are the contract farmers who are members of the sugarcane farmers' associations, and the sugarcane farmers' associations are the farmers' organizations that deliver sugarcane to either KSCL or Mtibwa, depending on the case.

For KSCL, I characterize the relationship between the contract farmers and the associations as one of *symmetrical reciprocity*, as there are valuable exchanges between the contract farmers and the associations because contract farmers receive inputs and access to credits and to the sugar mills through these relationships. For KSCL, similarly, the relationship between the farmers and the company via the associations is also characterized as one of symmetrical reciprocity, due to the exchanges between the two groups of actors: specifically, the investor gets sugarcane for their mill and sugar production, and the contract farmers receive income from selling their sugarcane, which causes positive outcomes such as reinvestment into other agricultural and livelihood activities. However, the Mtibwa case differs in that it is characterized by severe tensions and conflict, and farmers are leaving the contract farming scheme. The relationship between the contract farmers and the associations is only characterized weakly as demonstrating symmetrical reciprocity. The relationship between the investors and farmers via the associations is not characterized as having symmetrical reciprocity so I do not characterize the relationship between the contract farmers and the investor in Mtibwa as displaying symmetrical reciprocity. Applying the concept of holding power is helpful in this case in uncovering further evidence for why these relationships cannot be characterized as having symmetrical reciprocity. Holding power, as discussed in Chapter 3, refers to how actors are capable of surviving conflict in order to secure or maintain a desired result (Khan, 2010). In the case of Mtibwa contract farming, the company is not paying the farmers in a timely manner, or at all, even though exchanges are happening between the contract farmers and the company. The company seems immune to any organized collective action from the farmers, and the farmers, who are unable to inflict any real cost on the company, must choose between continuing with an unreliable scheme or leaving it altogether. Herein, I will argue that the Mtibwa company maintains holding power due to its economic strength and capacity due to

ties to political elites, illuminating why the Mtibwa scheme in particular is characterized by tension.

The rest of the chapter is organized in the following way. I will in the next section first discuss the relationship between the contract farmers and the associations by identifying exchanges between contract farmers, sugarcane farmers' associations, and the investors. Then, I focus on the outcomes of contract farming participation for contract farmers themselves. Finally, using the exchanges and outcomes, I characterize the included local population-investor relationships in terms of whether or not they have symmetrical reciprocity, and use holding power to discuss how power is composed in these relationships.

This chapter focuses on the two sugar contract farming cases in the district of Morogoro, Kilombero Sugar Company (hereafter KSCL) and Mtibwa Sugar Estates, and it builds on Chapter 5, which introduced the overall sugar sector in Tanzania. These two sugar producers represent two of the four biggest sugar producers in Tanzania. A map of Morogoro region is shown here; the KSCL case is located at the border of the Kilosa and Kilombero district and the Mtibwa case is located in the Mvomero district.



**Figure 7.2 Map of Morogoro Region**

Source: Universiteit Utrecht, Faculty of Geosciences | Dept. Communication & Marketing - Cartographic design

The *KSCL contract farmers*, as they will be referred to in this

chapter, are the households represented by several different sugarcane associations that sell to KSCL. Household surveys were done with 125 households of KSCL contract farmers, and their responses are represented here. The *Mtibwa contract farmers* group encompasses the 58 households surveyed during fieldwork (see also Chapter 4) that work with either Turiani Cane Outgrowers (TUCO) or Mtibwa Outgrowers Association (MOA) when selling sugarcane. The farmers in both the Mtibwa and KSCL cases who are not participating in contract farming are called the excluded local population. While they are referred to in this chapter several times, Chapter 8 focuses on their role. Table 7.1 shows the household characteristics for the contract farmers in KSCL and Mtibwa.

**Table 7.1 Household Characteristics of Contract Farmers in the Sugar Cases**

<b>Contract farming groups</b>	<b>Average household size</b>	<b>Most common highest level of education completed by household head</b>	<b>Average number of livelihoods per household</b>	<b>% of female headed households</b>	<b>Average land holding per household (hectares)</b>
<b>KSCL contract farmers (n=125)</b>	4.7	76.8% completed primary education	3.4	19%	2.5
<b>Mtibwa contract farmers (n=58)</b>	5.3	83% completed primary education	3.4	17%	3.5

Source: Household surveys, 2015

This table shows basic household characteristics of the contract farmers in the two schemes. The Mtibwa contract farmers have a larger household size than the KSCL, and more land on average. Both groups are similar in terms of female household heads, education and livelihoods. This shows that overall the groups are comparable, except for land ownership. The lower land holdings for the KSCL contract farmers might reflect less availability of land (Abdallah et al., 2014;



*Village house in Kitete near KSCL. Photo by author, 2015*

Sulle, 2017b; see Section 5.4.1).

Unlike the rice schemes, contract farming associations in these sugar schemes in each of the schemes has a primary function in the negotiating and determining of the formal contract and the relationship between the contract farmer and the investors. Due to this important function, the relationship between the contract farmers and the associations is also important. The section first

looks at the KSCL case and how the associations

function, what is exchanged in the associations and where the problems are in the contract farmer – association relationship, and for the KSCL case this has led to contract farmers switching associations. The Mtibwa case will then be discussed in the role of the associations and what is exchanged. Understanding the concrete exchanges between the contract farmers and the associations helps when characterizing the relationships between the included local population and investors in the KSCL and Mtibwa cases.

## 7.2 Relationships in Sugar Contract Farming: Farmers, Associations and Investors

In the 1990s, formal sugarcane associations started to emerge as mills were privatized in Tanzania, and today three out of the four major mills rely heavily on sugarcane sourced through outgrowers in sugarcane associations (SBT, 2016), including Mtibwa and KSCL. Some associations have received funding from the African Development Bank (UNCTAD, 2011), with the European Union also contributing to road improvements (KSCL Interview, 2015). Farmers' associations in



contract farming can reduce transaction costs for investors (Barrett et al., 2012), making it more appealing for investors to work with associations rather than individual farmers, as well as being a way to increase contract farmers' bargaining power (Sokchea and Culas, 2015; Barrett et al., 2012). Furthermore, since sugar production requires stable sourcing of cane to maintain mill production, it is important that sugarcane deliveries are organized and sequenced efficiently. Farmer organizations allow this to happen more easily and efficiently. Sugarcane contract farmers' associations are important in that they are both a key element of the sugar sector in Tanzania and are considered important in overall contract farming scheme constructions.

In the two cases here, membership in sugarcane outgrower associations does not have significant formal minimum entry requirements, except a registration card for growing sugarcane.<sup>47</sup> Contract farmers can easily join and switch associations, and even to be members of more than one association in the Mtibwa case, creating lower barriers to entry and exit. All associations demand membership fees although these vary across associations.

Membership of an association is important, because in KSCL and Mtibwa, only farmers registered with an association are allowed to sell cane to the mill, and the contract is between the association and the investor, with the individual farmer's relation to the association as a member thus being key in determining what the individual farmer will get out of the contract farming agreement. Association members pay fees to the associations ranging from 300 TZS per ton of sugarcane harvest to flat fees of 20,000-30,000 TZS per year.<sup>48</sup>

### 7.2.1. KSCL Sugarcane Contract Farmer Associations

KSCL started out working with two associations, Ruhembe Cane Growers Association (RCGA) and Kilombero Cane Growers Association (KCGA), each located in their respective district and supplying to the relevant mill, K1 or K2. The data collection in this study was only done in the K2

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<sup>47</sup> A deeper discussion of access to the contract farming schemes is presented in Chapter 8, looking at the excluded local population.

<sup>48</sup> Using the USD-TZS exchange rate for October 2015, or around the time of fieldwork, from xe.com, 30,000 TZS would equal about \$14 at that time.

area, where the Ruhembe Cane Growers Association is based. They do not have official records, but there were about 3400 members of both RCGA and KCGA in 1998, at the time of privatization (Focus Group with KSCL contract farmers, 2015). Joining the associations proceeds in the following way:

Then from there the sugarcane growers, they prepared their own constitution which was directing them on what to do. Then they started to register farmers without discriminating them and take them all as members as long as the farmer has a farm of sugarcane and goes through all the processes of registration. (Focus group with KSCL contract farmers, August 19, 2015)

According to this respondent, when the associations started, practically any sugarcane farmer could join. Membership in sugarcane associations in the beginning was just about getting registered if a farmer had sugarcane on their land. This is no longer the case today, as shown by the data collected from the fieldwork, which shows that farmers have changed sugarcane outgrower associations based on problems with the previous association. This indicates that over time, the role of associations in a contract farmer's success has become more important, and more nuanced.

Today, the formal role of associations is to organize and carry out the harvest and arrange with the mill to have each farmer's cane weighed and tested for sucrose, which reflects the price given for each load of sugarcane (Interview KSCL, 2015; Illovo, 2014). However, their full role is more complex, as they also provide inputs, regulate access to the mill, and invest in the local community. In this section, I look specifically at what the associations provide, what their purpose is, what weaknesses they are perceived to have and how farmers navigate association membership.

#### *Exchanges between the associations and contract farmers at KSCL*

The relationships between the associations and the farmers are characterized by concrete exchanges, often with the farmers receiving inputs and services in exchange for the opportunity to sell their sugarcane. All seventeen of the sugarcane associations at KSCL were surveyed in

order to provide an overview of what was exchanged between members and the associations, as shown in Table 7.2.

**Table 7.2 Exchanges received by individual association members in the KSCL contract farmers group**

<b>Input/Service</b>	<b>Number of associations that provide</b>
Provide cutters/harvesters	17
Community development	10
Loans from the association for inputs	7
Provide fertilizer	7
Access to bank loans	5
Farm equipment	4
Provide seeds	2
Maintaining land	1

*Source: Surveys of the 17 KSCL associations, 2015.*

All of the KSCL associations provided services around harvesting, and many provided fertilizer, loans for purchasing inputs related to agriculture, and access to farm equipment such as tractors. In some associations, loans were made available via the association, and for others, being a member of the association helped members broker deals to access bank loans. The majority of associations at KSCL also provided some sort of community development through fees collected from the members, which is used in a variety of ways, including buying food for fellow villagers after a flood, investing in education for the children of the village, and road maintenance.

Even though the associations provided many different inputs and services, the majority of association members reported in the household surveys that these inputs were not sufficient for their individual household's needs. To cultivate their land properly, they had to purchase more inputs themselves. In the household survey, 62% of the KSCL contract farmers purchased additional inputs of fertilizer and pesticides from stores in order to supplement what was provided by the sugarcane association. This lack of sufficient inputs and services provided by the sugarcane associations motivated many of the KSCL contract farmers to switch sugarcane associations.

*Motivations and explanations behind switching associations*

An extremely important finding in focusing on the relationships between contract farmers and associations in the KSCL is that many farmers have changed sugarcane associations since they began contract farming. In total, 49% of the KSCL contract farmers surveyed had changed associations once since initial membership in contract farming. The data collection was designed to capture members from several different associations, and members were asked to share if they had changed associations. It was unexpected to discover how many farmers had actually switched associations and had not just recently become new sugarcane contract farmers. All of these farmers switched from RCGA, one of the original two sugarcane associations that formed after privatization of KSCL, to a new association. Taking the group of 49% of contract farmers, which accounted for 61 households, this group of farmers switched to the following four associations: 44% moved to Msowero (established 2015), 20% moved to MCGA (established 2008), 20% moved to Maendeleo CGA (established 2010) and 16% moved to Bonye (established 2009). Out of the 49% of total KSCL farmers who switched to these four associations, 88.5% of them said they were now better off in the new sugarcane association. The farmers claimed certain motivations pushed them to switch associations; the main motivations are broken down in Table 7.3.

**Table 7.3 Reasons for switching associations \*respondents could choose all options that applied.**

<b>Main reasons for switching from RCGA to another association</b>	<b>% of those who switched</b>
Better access to credit	43
Better access to inputs	57
Better relationship to company	62
Better organized	97

*Source: Household surveys of KSCL contract farmers who switched from RCGA to another association (n=61).*

As seen above, there were many popular reasons for farmers changing associations – mainly motivated by the desire for more concrete exchanges in the form of credits and inputs, as well as a better functioning association with a better relationship to the company. Additionally, a

few farmers responded that they switched in order to ensure that cane would be harvested and get to the mill on time.

One farmer in the KSCL contract farmers' focus group explains that the shift had to do with large associations being difficult to manage:

After the number of members increased it was (really) hard to attend and support them while it seemed that other associations were favored during the harvest which led to the formation of new associations and members moving to new associations (Focus Group with KSCL contract farmers, August 19, 2015)

This reveals just one of the many complex reasons why the associations were becoming difficult to manage well; the difficulties involved seem to be related to both the size of the current associations as well as the number of associations. The farmers also cited that the new associations seemed to have a better relationship to the company.

Both the surveys and the focus groups indicate that association membership matters in terms of both inputs and services, as well as the ability to work well with the company. Contract farmers seem to associate their success with a well-functioning contract farming association. This again emphasizes the importance of the exchanges between the contract farmers and the associations in terms of determining the nature of the overall relationship between the farmers and the investors.

If contract farmers did not receive the exchanges they wanted, the outcome almost half the time was a switch to another association. The relationship between farmers and associations is not only about selling sugarcane, but also about the inputs and the way the organization functions. In most instances, switching associations led to improved circumstances in connection with contract farming.

In order to further understand specifically what the contract farmers might be dissatisfied with in their associations, a part of the household survey covered questions regarding the ability of the association to deliver on a number of different issues. In Table 7.4, I have taken five characteristics from the household survey for which contract farmers at KSCL rated three

different associations. Listed first is RCGA, which is one of the two original associations and the one that most of the households surveyed opted to leave. The second is Msowero, which is a new association to which the highest number of members moved from RCGA. The third is Bonye, which 16% of the farmers moved to from RCGA. The table gives an idea of how the contract farmers in the different associations view their association's capacity to function.

**Table 7.4 Characteristics of associations according to the contract farmers for the KSCL case**

	<b>RCGA (n=30)</b>	<b>Msowero (n=30)</b>	<b>Bonye (n=31)</b>
<b>Inputs delivered on time</b>	<ul style="list-style-type: none"> <li>• 28% always</li> <li>• 14% most of the time</li> <li>• 17% sometimes</li> <li>• 28% never</li> </ul>	<ul style="list-style-type: none"> <li>• 40% always</li> <li>• 10% most of the time</li> <li>• 20% sometimes</li> <li>• 7% never</li> </ul>	<ul style="list-style-type: none"> <li>• 48% always</li> <li>• 16% most of the time</li> <li>• 19% sometimes</li> <li>• 13% never</li> </ul>
<b>Handle conflicts with company well</b>	<ul style="list-style-type: none"> <li>• 41% always</li> <li>• 24% most of the time</li> <li>• 17% sometimes</li> <li>• 7% never</li> </ul>	<ul style="list-style-type: none"> <li>• 67% always</li> <li>• 20% most of the time</li> <li>• 3% sometimes</li> <li>• 7% never</li> </ul>	<ul style="list-style-type: none"> <li>• 52% always</li> <li>• 16% most of the time</li> <li>• 19% sometimes</li> <li>• 6% never</li> </ul>
<b>Transparency to members</b>	<ul style="list-style-type: none"> <li>• 66% always</li> <li>• 14% most of the time</li> <li>• 3% sometimes</li> <li>• 10% never</li> </ul>	<ul style="list-style-type: none"> <li>• 63% always</li> <li>• 3% most of the time</li> <li>• 3% sometimes</li> <li>• 0% never</li> </ul>	<ul style="list-style-type: none"> <li>• 87% always</li> <li>• 3% most of the time</li> <li>• 6% sometimes</li> <li>• 0% never</li> </ul>
<b>Association provides enough inputs</b>	<ul style="list-style-type: none"> <li>• 60% always</li> <li>• 3% most of the time</li> <li>• 3% sometimes</li> <li>• 30% never</li> </ul>	<ul style="list-style-type: none"> <li>• 60% always</li> <li>• 10% most of the time</li> <li>• 7% sometimes</li> <li>• 0% never</li> </ul>	<ul style="list-style-type: none"> <li>• 60% always</li> <li>• 3% most of the time</li> <li>• 3% sometimes</li> <li>• 30% never</li> </ul>
<b>Association provides enough labor (for harvesting)</b>	<ul style="list-style-type: none"> <li>• 24% always</li> <li>• 3% most of the time</li> <li>• 1% sometimes</li> <li>• 1% never</li> </ul>	<ul style="list-style-type: none"> <li>• 97% always</li> <li>• 3% most of the time</li> <li>• 0% sometimes</li> <li>• 0% never</li> </ul>	<ul style="list-style-type: none"> <li>• 80% always</li> <li>• 10% most of the time</li> <li>• 3% sometimes</li> <li>• 3% never</li> </ul>

Source: Household surveys for members of the KSCL contract farmers group belonging to RCGA; Msowero, or Bonye associations.

The table looks at the responses to five different questions from the survey: two on inputs, one on labor, one on conflict, and one on transparency. I have chosen these five questions because

the first three on inputs and labor deal with the exchanges, the fourth with conflict and the fifth is also related to conflict and describes the relationship between the associations and the farmers. When comparing the three associations on inputs, Bonye and Msowero are both better at delivering enough inputs and on time. Input delivery reflects, in part, organizational skills within the association as well as the ability of the association to have inputs as exchanges in the relationship. In terms of labor, or help harvesting the sugarcane, Bonye and Msowero were significantly better than RCGA. Bonye and Msowero are both better at handling conflicts with the company. This correlates to Table 7.3, which shows that many farmers switched to a new association because they had a better reputation for dealing with KSCL. Bonye was also perceived as the most transparent association of these three, but in general the levels of transparency are considered quite high. This table shows further confirmation that while associations matter due to input provision, services, and their relationship to the company, they differ greatly in their capabilities to execute these tasks.

*Motivations behind changing associations at KSCL: avoiding discrimination?*

Since privatization in the KSCL case, the role of associations has increased in importance as both the main negotiator with the company as well as the main provider of inputs and credits. For the KSCL case, farmers are reorganizing and changing associations to find better terms in the contracts, and they appear to be satisfied with the changes, but simultaneously, the company has not increased the amount of cane they take in from farmers. Farmers still report problems getting cane to the mill, that farmers sometimes burn other's sugarcane prematurely in competition to get to the mill and that the company cannot buy all of the cane due to almost full capacity and prioritizing their own cane (FGD KSCL contract farmers, 2015). Isager et al. (2018) found among farmers who had switched outgrower associations at KSCL that they felt less discriminated against by the new associations. This also echoes Sulle's (2017b) work with some KSCL associations wherein he found class problems and differentiation within the associations that isolated the most vulnerable members. This study complements these findings

in that contract farmers might have switched associations due to issues of discrimination. This could also perhaps mean that switching associations helped farmers deal with collective action problems or face the differentiation problems that were present within the associations.

According to one focus group member (see quote on page 185 above), the original schemes



*Sugarcane fields burning on the edge of Ruhembe village, photo by author, 2015*

were not discriminatory, and farmers worked together to sell sugarcane to KSCL. While not completely clear, there seems to have been a progression over time in which the associations no longer carried out these initial objectives. Thus, discrimination arose within the associations, and this was part of the push factor that caused farmers to form new associations and leave, in order to try and reset to some of the original objectives of the sugarcane farmers' associations: working collectively to sell sugarcane successfully to KSCL.

#### 7.2.2. Mtibwa Sugarcane Contract Farming Associations and Contract Farmers

The Mtibwa case differs from the KSCL case both in the number of sugarcane farmers' associations and the exchanges received by the contract farmers. This quote below from the focus group with Mtibwa contract farmers explains the development process of the associations. In contrast to KSCL, there are only two associations and they are not exclusive. MOA is the original association, and TUCO was later formed as a cooperative under MOA. The farmers see the role of the associations as paramount to getting a successful deal with the company, and they recount how the associations helped them unite and face the company collectively.

Due to farmers not being heard by the company with their problems, also as the company was favoring certain groups of people to the mill by buying their sugarcane, then that is when they decided to formulate the association. This helped [because] instead of solving individual problems, they were now solving association problems.



When they started, they didn't have the tractors to cultivate also they didn't have seeds, so they [associations] were asking for them from the company. People were registering their names [in the associations] to cultivate their farms and be given the seeds...they were able to solve problems as an association.

So TUCO was formed from MOA and TUCO is a cooperative. When they need to talk to the company they go together and ask questions. So, they work together as one association. They only differ in formulation of the association in terms of fees, but they all have the same aim, which is to sell their sugarcane to the mill. (Focus Group Interview with Mtibwa Contract farmers, 2015)

The line between TUCO and MOA is somewhat blurred, even for the interviewees themselves, but the farmers indicate how these two organizations are important in working collectively to approach the company and get the sugarcane of the contract farmers sold to the mill. This is in contrast to the competitive nature of the KSCL associations. For example, when Mtibwa contract farmers were asked who they sold their sugarcane through in the last harvest, 48.3% said it was MOA, 17.2% TUCO, and 34.5% sold to both organizations. The lack of a clear distinction between MOA's activities and TUCO's makes it difficult to compare the two organizations, so I have treated them as they were represented in the focus group interviews, as two associations working together.

#### *Exchanges in the Mtibwa contract farming scheme*

The Mtibwa contract farming associations MOA and TUCO also offered some inputs and exchanges, like in the case of KSCL. In the household surveys, the farmers listed their different motivations for joining the associations, as described in Table 7.5:

**Table 7.5 Motivations for joining contract farming association cited by Mtibwa contract farmers**

<b>What led to association membership</b>	<b>% of Mtibwa contract farmers (n=58)</b>
Ability of association to access transportation to mill	91
Location of association	72
Ability of association to access credit	35
Referral from other members	26
Founding member	12
Ability of association to access inputs	4

*Source: Household surveys of Mtibwa contract farmers, 2015.*

The table above shows that the number one exchange contract farmers would receive was the ability to get their sugarcane to the mill, and the second most important motivation was the location of the association. Inputs in terms of access to credit and loans were important. However, inputs such as fertilizer and pesticides were not exchanged heavily in the Mtibwa contract farming associations. Furthermore, 45% of the Mtibwa contract farmers reported supplementing additional inputs, which reinforces the fact that contract farmers in Mtibwa were focused on the exchanges of getting sugarcane to the mill and being in a convenient location.

Table 7.6 describes how the MOA and TUCO associations are deemed by the contract farmers to function in five distinct areas, in order to understand how the Mtibwa contract farmers perceived the role of the associations.<sup>49</sup>

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<sup>49</sup> The households were asked to answer for both associations together, as at the time of fieldwork there was an understanding that the associations were intertwined closely. This was an oversight in that the data is not able to highlight differences between TUCO and MOA.

**Table 7.6 Characteristics of the MOA and TUCO Associations**

<b>Mtibwa Sugar Estates: Characteristics of the MOA and TUCO Associations Representing the Contract Farmers (n=58)</b>	
Inputs delivered on time	<ul style="list-style-type: none"> <li>• 2% always</li> <li>• 0% most of the time</li> <li>• 5% sometimes</li> <li>• 36% never</li> </ul>
Handles conflicts with company well	<ul style="list-style-type: none"> <li>• 10% always</li> <li>• 12% most of the time</li> <li>• 31% sometimes</li> <li>• 32% never</li> </ul>
Transparency to members	<ul style="list-style-type: none"> <li>• 44% always</li> <li>• 25% most of the time</li> <li>• 15% sometimes</li> <li>• 3% never</li> </ul>
Association provides enough inputs	<ul style="list-style-type: none"> <li>• 2% always</li> <li>• 0% most of the time</li> <li>• 12% sometimes</li> <li>• 29% never</li> </ul>
Association provides enough labor (for harvesting)	<ul style="list-style-type: none"> <li>• 69% always</li> <li>• 3% most of the time</li> <li>• 2% sometimes</li> <li>• 17% never</li> </ul>

Source: Household surveys with Mtibwa contract farmers.

From the above table, a number of insights into how the associations work can be deduced. Inputs are rarely delivered on time and are not sufficient; this might reflect what the previous table showed about how input provision was not a main reason for joining the association. This is in contrast to KSCL, where inputs are more important in the contract farmer-association exchange. MOA/TUCA receive mediocre to negative ratings in terms of how they handle conflict with the company, suggesting the members do not view the organization as having great collective strength to negotiate with the company. The associations are seen as mostly transparent, which is also important in the argument that the tensions in Mtibwa seem to be

more related to the company than to the associations. The associations are good providers of the harvesters of the sugarcane, which is related to the main draw of association membership being the ability to transport the cane to the mill. Harvesting and transporting are the main exchanges that the Mtibwa contract farmers receive from engaging with MOA and TUCO.

Only 3% of the 58 households reported being better off after having joined the contract farming association. I argue that this is partially due to the association having limitations but also due to greater tensions within the Mtibwa company itself. Furthermore, it appears that since privatization the capacity of the associations to negotiate has decreased over time due to problems with the company. A quote from the focus group indicates this:

When the company was under the government life was really good, it was easy to get money and solve problems. Also, the company was supporting the outgrowers. But since the private person take over the life has changed, they don't care. Delaying payments. Also, there is no good communication between the outgrowers and the owner of the company. There is no trust between the outgrowers and the company laboratory.<sup>50</sup> (Focus group discussions with Mtibwa contract farmers, September 7, 2015)

This highlights how privatization is seen by the farmers as the breaking point. There are no reliable payments and communication is poor. Despite the development of an additional cooperative, TUCO, and efforts to organize and face the company collectively, it appears that the relationship between the company and the associations (and thus the contract farmers) is still quite strained, which will be elaborated on further in the analysis below on holding power as well as in Chapter 8. It is not clear whether this decrease in capacity to negotiate with the company lies solely with the investor becoming increasingly difficult to work with, or if changes in the internal workings of the association have occurred. This differs greatly from the KSCL case in that 1) new associations were not formed to try and work out some of the issues within the

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<sup>50</sup> The laboratory being the place where the sucrose content of the sugarcane is determined.

associations and that 2) the major problem is perceived to lie within the company first and the association second, where the opposite applied to the KSCL cases.

The relationships in Mtibwa between the contract farmers and the associations are characterized by the exchanges of harvesters and transportation for sales to the mill, and the exchanges between the associations and the company is characterized by conflict and lack of payments.

### 7.2.3. In Summary

Overall, for both the KSCL and the Mtibwa cases, the lesson is that the associations are extremely important to the individual contract farmers. The associations play a critical role in negotiating a contract with the company that is beneficial for the contract farmers. For Mtibwa, this appears to be a struggle as the company seems to not respond to collective efforts and continues to not pay or communicate. For KSCL, the farmers have responded by creating many new associations, in an effort to create a better relationship with the company. The many associations must compete in order to negotiate getting their sugarcane to the mill.

## 7.3 Outcomes: Reinvestment and Improved Well-being

The previous section dealt largely with the exchanges that contract farmers received in their relationships with the investors and the contract farmers' associations. In addition to understanding these exchanges, it is also important to understand the outcomes of contract farming in order to characterize the relationships between the contract farmers and the schemes. The contract farmers' relationship with the association lays the foundation for the outcomes that the individual households experience. This section focuses on two specific outcomes of contract farming participation for these two cases: reinvestment and improved well-being. Particularly KSCL farmers report being better off as a direct result of contract farming, which is in keeping with what other literature has said about the ability of contract farming to be beneficial (Bellemare, 2012; Bolwig et al., 2009; Simmons et al., 2005; Sokchea and Culas, 2015; Scoones et al., 2017).<sup>51</sup>

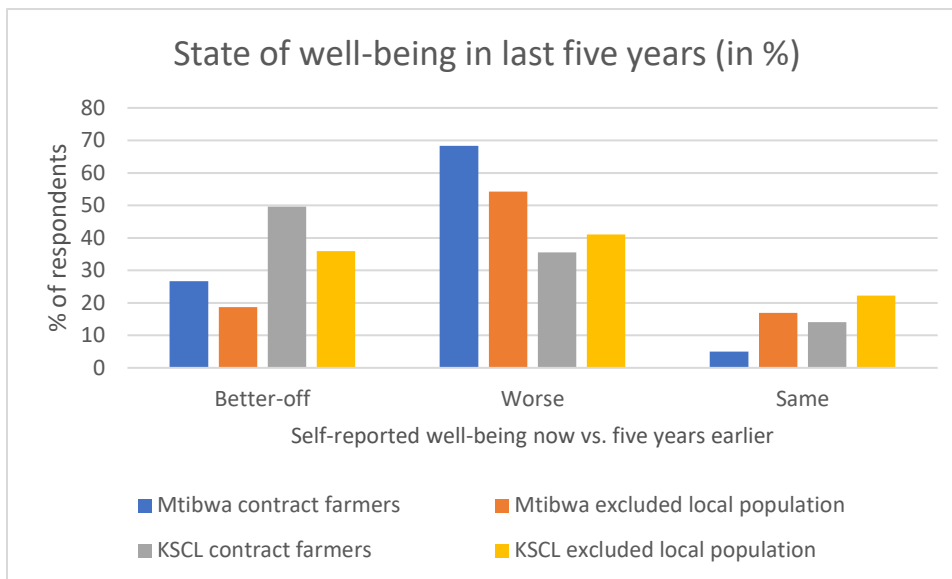
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<sup>51</sup> See Chapter 2 for more on the positive effects of contract farming in the literature.

### 7.3.1. Improved Well-being for Farmers in Both Cases

When all the households from both cases were asked if they considered themselves better off now versus five years ago, there were significantly more contract farming households that responded yes when compared to excluded local populations for the KSCL case. Figure 7.3 shows the composition of the welfare of both the contract farming and excluded local populations for Mtibwa and KSCL.

**Figure 7.3 Well-being of households in the sugar sector cases**



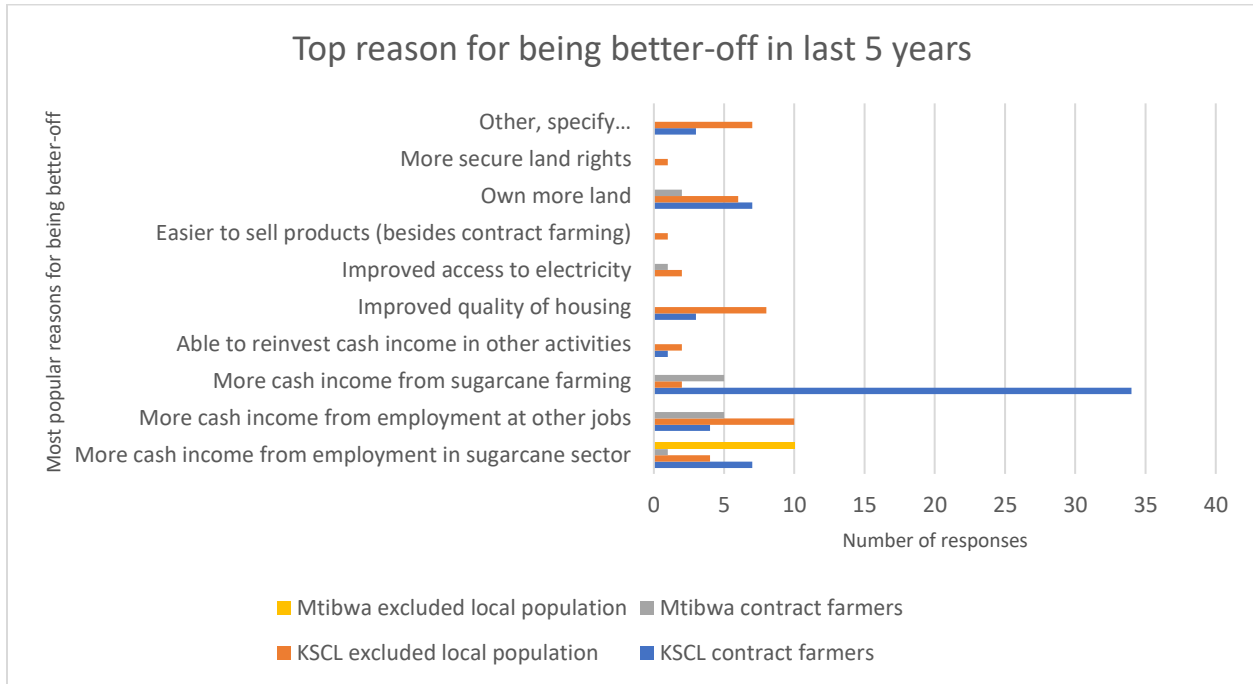
Source: Household surveys for KSCL (n=125) and Mtibwa (n=58) contract farmers and KSCL (n=117) and Mtibwa (n=59) excluded local population.

This figure shows two important trends. The first is that Mtibwa's contract farmers were less likely to be better off than KSCL's contract farmers and even KSCL's excluded local population. This is likely due to the significant issues with the scheme and the associations, as discussed in Sections 7.2 and 7.3. The second is that the KSCL contract farmers report being better off than the excluded local population in the KSCL case do. This is likely due to the positive exchanges and benefits of the contract farming scheme.

However, being better off is not necessarily caused by being a sugarcane contract farmer, so it is important to see the range of reasons why the households perceive themselves as better off. Each household was given the opportunity in the survey to list the top three reasons why they

saw themselves as better off now (2015) than five years previously. Figure 7.4 shows the top reasons why households saw themselves as better off.

**Figure 7.4 Reasons for being better off now compared to five years ago for farmers in the Mtibwa and KSCL cases**



Source: Household surveys for KSCL (n=125) and Mtibwa (n=58) contract farmers and KSCL (n=117) and Mtibwa (n=59) excluded local population.

Figure 7.4 shows a distribution of the top responses for why each household considers itself better off at the time of the fieldwork versus five years earlier.<sup>52</sup> For KSCL contract farmers, the most important factors were income from sugarcane farming and possessing more land and cash through employment in the sugarcane sector through contract farming. For the KSCL excluded local population cash income from non-sugarcane related jobs was important as well as improved quality of housing and land. For Mtibwa it was roughly equal in terms of whether or not it was sugarcane farming or other jobs that brought in income that caused change. For the excluded population in the Mtibwa case, the overwhelming response was that improvement of well-being was due to income in the sugarcane sector. Why this is the case is unclear. Three of these households had grown sugarcane with Mtibwa before, so it could be

<sup>52</sup> See Appendix C for the household survey.

the fact that they had received income within the last five years related to sugarcane that made a difference. It could also be related to side selling. These reasons all correlate to contract farming, showing that contract farming made an important contribution to the improvement of a household's perceived overall well-being for the KSCL contract farmers in particular. Now, the focus turns to looking specifically at reinvestments because these show outcomes for how contract farmers engaged with the profits they gained through selling sugarcane to an association.

### 7.3.2. Patterns of Reinvestments

The majority, 75%, of all contract farming households surveyed who reported being better off in the last five years attributed this improvement to increased income from sugarcane contract farming. Additionally, 61% of all contract farming households, including those who did not see themselves as better off, cited that they used income from sugarcane to invest in other activities, including reinvestment into farm and off-farm livelihoods. This is important because it shows that *even* those farmers who did not consider themselves better off now than five years previously still used their income from sugarcane in some way; thus, improvements from sugarcane contract farming can be noted in the surveys through both the perceived change in overall household well-being as well as through concrete actions taken by the household. The specific livelihood activities to which contract farmers applied income from sugarcane are summarized in Table 7.7.

**Table 7.7 Reinvestment activities of all contract farmers in both cases\* farmers could choose all options that applied**

Reinvestment activity	% of farmers who reinvested
Basic needs	57
Housing	39
Land acquisition (rent or buy)	21
Farming activities	38
Off-farm activities	12

Source: Household surveys for contract farmers for both KSCL (n=125) and Mtibwa (n=58).



The table shows that 57% of the respondents used some or all of the capital from sugarcane to invest in basic needs. This covers items like education, health care, and food for the household. This means that for over half of these respondents, contract farming helped them secure their basic needs, which may fortify household food security. Furthermore, 39% invested in housing, which reflects investment in physical capital.

The subsequent three categories in the table, land acquisition, farming activities and off-farm activities, describe choices to increase physical capital as well as reinvest in existing income sources. These activities contribute to household livelihood strategies and illustrate positive outcomes of contract farming engagement. 21% of respondents claimed that income from sugarcane enabled them to acquire more land, and 38% of them used income to increase farming activities, such as by acquiring new crops or increasing inputs in existing cultivation. Acquiring more land for agricultural purposes is an example of *extensification* whereas increasing farming activities is typically a sign of *intensification*, both of which are considered livelihood strategies farmers engage with (Scoones, 1998). Finally, a smaller group of farmers used the income from contract farming to reinvest into off-farm activities, like opening up a shop or purchasing a motorcycle to use for hire, again decreasing risk by choosing specific livelihood strategies (*ibid.*). Many farmers chose multiple ways to reinvest their funds to spread it across livelihoods and human capital. In the next paragraphs, I give a few examples from focus group discussions that illuminate the processes indicated above. These examples reflect how multiple patterns of reinvestment were engaged in by the contract farmers which may increase their households' ability to stand up to risk, and which are a positive outcome of the contract farming investment.

During a Focus Group Discussion (KSCL contract farmers, August 19, 2015), one respondent cited how he was an employee at KSCL, but he was not making enough money, so he quit and started growing sugarcane as a sugarcane farmer. He had 1 acre to begin with and now has 11 acres of sugarcane. He has invested in a motorbike and paid the school fees for his family. He took his income from sugarcane to both reinvest in and expand his sugarcane, or extensify his agricultural

production, as well as provide for his basic needs and increase his quality of life through purchasing a motorbike, which can contribute to productivity.

Furthermore, in the same focus group discussion with the KSCL contract farmers, another respondent described her experience as the following:

I was cultivating rice, but it wasn't enough to solve all of my problems for it was small farming. Then I started the sugarcane farming with two acres and now have 5 acres and am capable of paying my kids' **school fees**. Also, I put the **electricity** in my house, and I have a **television** decoded and life is good. Sugarcane is a good deal, I want to **add more farms**. (Focus group discussion with KSCL contract farmers, 2015, my emphasis)

This farmer also illustrates how contract farming allowed her to change livelihood strategies and intensify her production as well as meet basic needs and improve her housing. Both excerpts illustrate how farmers were able to use the money from contract farming to improve their lives and make productive investments.

Table 7.8 shows the reinvestment activities of 6 farmers present in a focus group of contract farmers at KSCL, and it helps visualize how the farmers spread profits across a number of activities.

**Table 7.8 Examples of reinvestment patterns by household**

Farmer	Basic needs	Health & education	Housing	Agricultural activities	Other
1	Food	School fees	Build a house		
2			Acquire a house	Increase from 2 to 10 acres	Television and household items
3		School fees, including university			Able to access loans
4		School fees	Build a house		Help other family members
5		School fees and better health care	Two houses	Tractor	Able to access loans
6	Better food	School fees including university		20 acres for rice cultivation	Household items and car, and social networks increased

Source: Focus group discussion with KSCL contract farmers, 2015.

This table shows the choices of six KSCL contract farmers and how they used income from sugarcane in their lives. Five out of these six farmers chose to invest in education, but also used their income to increase quality of life, including investing in better housing (or housing in general) and food. Some of the farmers carried out agricultural intensification/extensification through increasing land holdings and agricultural activities. Some of the farmers were able to access more loans due to the security provided by contract farming. In general, they spread out their income, which resulted in more diversified households, which contributes to stability, as they now have more resources available when needed.

### 7.3.3. In Summary

This section shows that, overall, KSCL contract farmers perceive themselves as better off due to sugarcane and they reinvest profits into human, financial, and physical capitals. In this way, there are positive outcomes of the contract farming investment for many of the members of the included local population. This is not the case for the Mtibwa contract farmers; while a few

do experience positive outcomes, it is only a small proportion of the entire group. This reflects the problems with the company itself.

What is understood here is that, in particular for the KSCL case, contract farmers are reinvesting their incomes into additional productive activities. This speaks to the positive aspects of contract farming and provides important insight into the character of the relationships between contract farmers and the investor. First, the relationship brings immediate exchanges in the forms of inputs and cash, and second, the relationship brings future gains. The initial exchanges from the contract farming relationship also bring about secondary benefits in the form of reinvestment and changes to overall livelihood activities and well-being. Since these farmers are experiencing positive returns and overall livelihood changes, it suggests a solid engagement with the contract and solid ground for characterizing the relationship as beneficial.

These cases relate to contract farming literature, like the rice cases in Chapter 6, in that they show that through the exchanges made in these relationships, *some farmers do benefit from contract farming* in such a way that it allows them to reinvest in other livelihoods and provide basic needs and housing for their families. This is mostly limited to the KSCL case, in which farmers are benefitting and also partaking in activities that will continue to increase their benefits, such as livelihood diversification and agricultural intensification and extensification (Section 7.4). This is not unlike what many scholars have said about contract farming contributing to participating households in a positive way (Bellemare, 2012; Bolwig et al., 2009; Simmons et al., 2005; Sokchea and Culas, 2015; Scoones et al., 2017). Contract farming *can be a pathway* from which smallholders benefit and are able to reinvest in agriculture and other livelihoods.

The cases of KSCL and Mtibwa, as others have done in contract farming literature, shows that association membership matters greatly in determining outcomes, and perhaps increasing “bargaining power” (Glover and Kusterer, 1990; Barrett, 2012; UNCTAD, 2009). This information also resonates with the findings of Isager et al. (2018) in their study of KSCL, in that associations can arguably contribute negotiating power. However, these cases also show how important the relationship between the contract farmer and the association can be, which has not been

articulated as clearly in the literature, although Sulle (2017) discusses the differentiation within the various associations, specifically in terms of class dynamism.

## 7.4 Symmetrical Reciprocity Contract Farming Sugarcane Schemes

When using the analytical approach outlined in Chapter 3, the first question to ask is which relationship(s) are of importance. The relationship between the contract farmers and the associations perhaps matters most in the cases presented here. As seen in Section 7.1, farmers from KSCL changed associations in order to gain better exchanges and outcomes than they were getting at the previous association, in the forms of inputs and credits, as well as a better relationship to the sugarcane company and thus better chances of getting sugarcane to the mill. This reflects what scholars have said about associations in that they can be vital in helping the contract farmer succeed (Sokchea and Culas, 2015; Barrett et al., 2012). The chapter has primarily presented the exchanges and outcomes in this relationship between the contract farmers and the associations. I will now discuss this relationship in light of the analytical framework on symmetrical reciprocity as well as discuss the overall relationship between associations and investors in these two cases.

### 7.4.1. Kilombero Sugar Company: Symmetrical Reciprocity

For the KSCL case and the contract farmers' associations' (sugarcane associations) relationship with the individual farmers, there are clear exchanges and outcomes. Specifically, the exchanges that occur here between the farmers and the associations are similar to those in the rice cases discussed in Chapter 6 regarding the relationship between the contract farmers and the investors. The exchanges between the individual contract farmers and the associations varies from association to association in the KSCL case but include tangible exchanges such as access to inputs and credits, as well as intangible exchanges such as the effects of the association's relationship with the investor – in which the farmer faces the effects of that relationship. When the contract farmer-sugarcane association relationship functions, as many of the survey responses and focus group quotations indicate it does, it can be described as one of *symmetrical reciprocity*.

The farmer gains access to inputs, access to the contract and is able to get their sugarcane to the mill. The farmers receive secondary exchanges through the benefits of reinvesting the income from sugarcane into different productive activities. The association then gains membership fees and organizational capacity that may then in turn benefit the relationship between the association and the company. In a relationship of symmetrical reciprocity, there is balance, which is the case for the majority of farmers surveyed in the KSCL case, given their positive response to contract farming. However, as shown in particular by farmers who switched contract farming associations, not all of the relationships between contract farmers and their respective associations have necessarily been ones of symmetrical reciprocity, because farmers have chosen to switch to a different association. This indicates again that the characteristic of symmetrical reciprocity can change and lose the balance that stabilizes it. This, along with other observations from the KSCL and Mtibwa cases below, is important as the instability reveals something about the holding power in these relationships.

When considering the relationship between KSCL and the sugarcane associations, the company receives sugarcane in an expected amount and pays based on quality and the association receives the payment that is distributed to the members. Furthermore, the relationship between the company and the sugarcane associations can be seen as one of symmetrical reciprocity, since both parties engage with the contract and continue to do so, although it is perhaps dependent upon the individual association as to what the actual experience of the relationship is, in terms of whether or not the association succeeds in getting all of its cane harvested at the mill. Even though each association has a different relationship to the company, KSCL continues to work with all the sugarcane associations, even the new ones. The company had two outgrower managers employed at the time of the fieldwork, and they actively worked with each of the 17 different associations. This willingness to work with so many associations is interesting considering that Sulle (2017b) found that the investor saw a great number of associations as increasing the transaction costs of the company. It could be that if the associations continue to fragment, the company will reach a point at which they no longer wish to work with so many different associations.

#### 7.4.2. Mtibwa Sugar Estates: Symmetrical Reciprocity

When looking at the Mtibwa case and the contract farmers and associations (MOA and TUCO), some exchanges are observed in the form of inputs and access to the mill. However, as noted in Section 7.3, there are a great number of tensions with the company. These tensions include not paying farmers on time, not accepting sugarcane to the mill and too low payment. While the contract farming scheme still exists, these tensions and the fact that 29% of the surveyed excluded local population at Mtibwa had actually left sugarcane farming due to these problems with the company, indicate that the relationships in this case are quite different from those in the other three cases in this dissertation. With regard to the relationship between the contract farmers and the associations, one could argue that it displays some elements of symmetrical reciprocity, but due to the tensions present in the relationship between the associations and the investors, it is not fully characterized by symmetrical reciprocity. Even though there are some exchanges between MOA/TUCO and the farmers, the tensions between the company and the associations indicate that these exchanges might not be sustainable. A relationship that is characterized by symmetrical reciprocity between the associations and the farmers can only be sustained if the relationship between the associations and the investor is also characterized as having symmetrical reciprocity. The relationship between the contract farmers and Mtibwa via the association, while still functioning in some cases, is difficult to classify as being symmetrically reciprocal due to the high number of tensions and complaints. Even though the scheme is still running, it is difficult to identify what is driving the scheme and it is arguably becoming increasingly unequal. The escalation of conflict reveals holding power, which will be discussed below to help make sense of what is happening in the Mtibwa case.

#### 7.5. Holding power in Contract Farming Sugarcane Schemes

Unlike in the rice cases, the relationships between the sugarcane contract farmers and the investors, via the associations in these two cases, show evidence of tension and conflict, and this provides additional insights into how power is distributed in the investor-contract farmer relationship.

### 7.5.1. KSCL: Holding Power

Concerning the KSCL case, it is useful to think about the behavior of switching between associations in light of monopsony. Scholars have written about monopsony, or the case of a single buyer, and how this can be problematic for farmers (Sivramkrishna and Jyotishi, 2008), or simply a staple of contract farming (Baumann, 2000). The behavior of the associations, both in that farmers move around but also in that new associations continually pop up, is arguably an outcome related to KSCL being a monopsony on sugarcane in the Kilombero area. Specifically, farmers and associations are constantly changing to try and get the best relationship with the company in order to gain the most from contract farming, which could be described as a coping mechanism for dealing with a monopsony. This “coping mechanism” in turn is evidence of power relations within the investment, and this is where applying holding power becomes helpful in understanding how relationships are affected by power in the KSCL case. The ability to organize is one of the main signs of holding power, and at KSCL, there are many different organizations which farmers switch between in order to find the best possible association. Thus, farmers are able to organize themselves, increasing the ability of the association to negotiate with the company.

However, there seems to be tension between the associations and the farmers. Some farmers report being treated unfairly and thus choose to form new associations. Another way to look at the ability to organize is that while the company works willingly with the different associations, the question becomes, do the associations continue to fragment because of poor internal organization or is it in fact due to the economic power/capacity of the KSCL investment to maintain contracts that favors its own interests? The results in this chapter indicate that, while the survey respondents blame internal organizational issues, the problem also lies with the company being unable to fully accommodate all the sugarcane farmers and some farmers’ associations being able to navigate the relationship with the company more successfully than others. Thus, the ability to organize successfully seems to indicate that some organizations seem to have strong holding power when it comes to negotiating with the company, whereas other organizations do not; the holding power of the investor is perhaps greater in these cases. This is in line with what scholars who critique contract farming monopsonies say is problematic



for farmers in these conditions; i.e. the farmers' options become limited (Sivramkrishna and Jyotishi, 2008).

#### 7.5.2. Mtibwa Sugar Estates: Holding Power

Like KSCL, Mtibwa is also a monopsony, suggesting a powerful position of the company in relation to the farmers, but the relationship between the company and the associations and farmers differs greatly from the KSCL case. While the relationship with the association is important for the individual farmers, unlike with KSCL, the farmers continue to operate within the same two associations, despite evidence of conflict and problems with the company. This differs from the KSCL case specifically in that 1) new associations were not formed to try and work out some of the issues between the associations and the company and that 2) general opinion is that the major problem lies with the company first and the association second, where the opposite applied to the KSCL case. In fact, farmers are even leaving the Mtibwa contract farming scheme. While one possible explanation is that the contract farmers' ability to organize is poor and this is what is causing them to leave, I would argue that a better explanation is that Mtibwa, as the investor, is able to absorb the costs of not getting cane to the mill. The company seems to be unaffected by the plights and complaints of the contract farmers. This perhaps indicates that the investor has enough economic power that the success or failure of the sugar mill is negligible and thus the company has little interest in negotiating with the farmers. Considering that Mtibwa is owned by the large conglomerate Superdoll and the political elite family of the Seifs, it could be that this is indeed the case for Mtibwa. Specifically, the economic holding power of Superdoll could be so great that they do not need the contract farmers to succeed, and thus, the scheme is actually starting to break down. It is difficult to document, but this family is rumored to be well-connected to political ruling elites. However, since this family does own a large business conglomerate in Tanzania, Mtibwa is a company that holds considerable economic power, and probably also political power as well. Thus, it seems that the company, according to this interpretation, has more holding power than the farmers and associations. The farmers, in turn, are choosing to opt out and pursue other livelihoods, although the full extent of what this will mean for the individuals as well as entire communities remains to be seen. The scheme is of course still intact, but with these tensions it seems that,

unless there is a change in the organizational power of the farmers, more farmers will leave the contract.

## 7.6 In Conclusion

Both cases in this chapter show how sugarcane contract farmers' associations play a central role in the local included population. As the investors only work directly with associations, the contract farming scheme only functions because of the associations. The contract farming literature has pointed out that it is advantageous for the contract farmer to be in a farmers' organization in order to gain greater benefits from the contract farming scheme (Barrett et al., 2012; Glover and Kusterer, 1990; Sokchea and Culas, 2015). This chapter's discussions support this literature and speak empirically to how the association's role facilitates contract farming. It also shows how farmers' organizations can be the most important source of access to inputs and credits.

As seen in Section 7.3, the contract farmers from KSCL have experienced positive change because of contract farming, indicating that it is possible that differentiation is occurring here because of contract farming. As some scholars have mentioned, including more recently, differentiation matters in understanding the overall impact of a contract farming investment (Scoones, 2017; Sulle, 2017b). In terms of the research question for this chapter, it is important to understand that differentiation within the local population is a feature of contract farming, at least in the cases in this dissertation. This also further supports the importance of trying to fully understand contract farming in terms of its overall impact on the entire local population; as seen from this chapter, contract farming does matter and does contribute to changes, so how and why it does this are important questions to uncover. This leads to two questions: 1) Why are some farmers included while others are excluded from these contract farming investments? 2) What implications does this have for the local population? This is what I turn to in Chapter 8, which focuses on the excluded local population. In closing, I return to the guiding research question in this chapter: *What is exchanged in sugar contract farming schemes in Tanzania, and how do these exchanges influence the outcomes of these contract farming schemes?* These exchanges include inputs, access to sugarcane mills, access to the investing

company, and the improved well-being contract farming in sugarcane contributes to for many farmers. However, it is important to note that most of the exchanges for the individual farmers in sugar contract farming at KSCL and Mtibwa are made through the relationship between the sugarcane association and the farmer, and not through the contract farmer-company relationship. Positive outcomes have included farmers being able to re-invest, diversify and report positive well-being as a result of contract farming participation. Other outcomes include differentiation within the local population and negative outcomes include tension in the relationships between the associations and farmers, as well as the farmers and investors, particularly in the case of Mtibwa.

The relationships between contract farmers, associations, and investors in the KSCL case are considered to be characterized by symmetrical reciprocity, but for the relationships in the Mtibwa case this is not possible due to the conflict and tension in the scheme over the investor's reputation and holding power. Case-specific tensions have caused different scenarios in the two cases. At KSCL, tensions have led in part to increased fragmentation of contract farming associations, but with reports that switching associations is positive for individual farmers' connection to contract farming. In Mtibwa, tensions have meant that some are abandoning contract farming. Both of these cases show examples of how holding power is revealed through conflict. The next chapter will expand the focus on relationships to those outside the contract farming scheme, i.e. the excluded local population.



# Chapter 8: Excluded Local Populations in Rice and Sugar Contract Farming Schemes

## 8.1. Introduction

Chapters 6 and 7 focus on the contract farmers and their relationships to the investors. This chapter focuses on the excluded local populations in contract farming, who are often overlooked in contract schemes, thus putting the question of broader development outcomes and differentiation at the center of analysis. The excluded local populations are those farmers surveyed in the four cases who are geographically located in the same communities as investors and contract farmers included in contract farming schemes, but who are not contract farmers themselves. Specifically, each group of excluded local populations is sampled from the same areas in which the contract farmers and schemes are located.<sup>53</sup> By focusing on the excluded local population, this chapter analyzes the contract farming scheme's outcomes beyond the narrow focus on those included in the contracts. The following question guides this chapter: *What characterizes the relationships between the excluded local populations and contract farmers, as well as the relationships between excluded local populations and investors, in terms of processes of exchanges, access, differentiation, and power?*

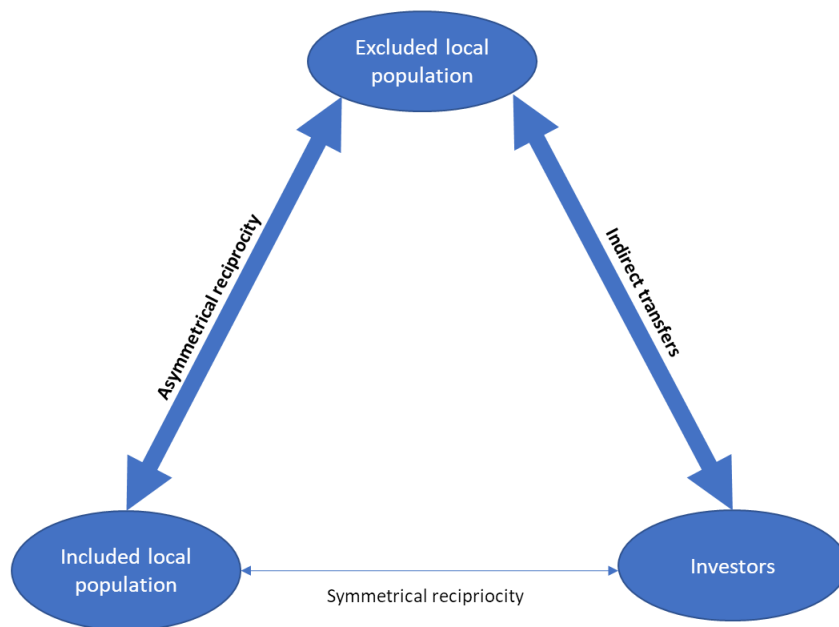
This chapter examines the excluded local population and its relationship to the contract farmers and the relationship between the excluded local population and the investors in the contract farming scheme by using the analytical framework developed in Chapter 3. These two relationships are emphasized in the Figure 8.1.

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<sup>53</sup> See Chapter 4 Section 4.4.

**Figure 8.1 The relationship between the excluded local population and the included local population; and the investors and the excluded local population**

The local level investment relational triangle



The two relationships are emphasized in Figure 8.1 by the emboldened arrows between the included local population and the excluded local population, and likewise, between the excluded local population and the investors.

The relationship between the local population's included and excluded members in a contract farming scheme I have suggested can under certain circumstances can be characterized by *asymmetrical reciprocity*, emboldened in Figure 8.1. Asymmetrical reciprocity, like symmetrical reciprocity, is inspired by Sahlins' (1972) work on the concept of reciprocity; I situate this term somewhere between "balanced reciprocity" (p. 176) and "negative reciprocity" (p. 177). Asymmetrical reciprocity is neither negative nor balanced because while there are some exchanges between the two groups of actors, they often consist of things like casual labor opportunities for excluded local population members on contract farmers' fields as well as effects on local availability of land and demand for agricultural products. The exchanges in this relationship are heavily based on the fact that the contract farmer has the resources to execute

said exchanges on the excluded individual. It is through contract farming that these exchanges happen, explaining why the relationship is described as one of asymmetrical reciprocity. This relationship is important because in cases where it is present, it is a sign of the contract farming scheme's deeper embeddedness in the local population.

The other relationship explored in this chapter is that between the excluded local population and the investors. This relationship is characterized by *indirect transfers*—i.e., no direct formal relationship exists between the two groups of actors, but there are effects on the excluded local population due to the contract farming investor's presence. These effects can be positive (e.g., community development and knowledge sharing of agricultural practices) or negative (e.g., conflicts over land or water; or in worse cases, accusations of violence, pollution, etc.). These effects can also be discussed in terms of the investment's positive and negative externalities. This relationship matters because negative externalities can lead to pressure on the entire investment and can potentially cause the scheme to break down between the investors and the contract farmers.

For all four cases, I will discuss what characterizes the relationships that evolve.

- For KSCL (sugar), I argue that the relationships between the included and excluded local population are characterized by asymmetrical reciprocity because the excluded local population works casual labor jobs for the included local population; and the included local population has, due to sugarcane incomes, increased the demand for agricultural goods and land within the local population. The relationship between the excluded local population and the investor is characterized by mostly positive indirect transfers due to community development and infrastructure improvements sponsored by the investor.
- For Mtibwa (sugar), I will argue that the relationship between the included and excluded local populations cannot be characterized as asymmetrical reciprocity because the scheme is performing poorly and there are no clear connections between the local population's excluded and included members in terms of exchanges prompted by contract farming. Furthermore, the relationship between the excluded local population and the investors is characterized by negative indirect transfers because the investor is

not well connected to the community and many members of the excluded local population were actually previously members of the contract farming scheme.

- For the Kapunga (rice) case, I argue that asymmetrical reciprocity does not exist within the local population because the contract farmers and the excluded local population are unrelated to one another due in part to geographical distance, and the investor-excluded local population relationship is characterized by negative indirect transfers due to the long conflict over land as well as reports of the investor's blocking access to water and roads.
- For the MKRS (rice) case, I argue that there is no evidence of asymmetrical reciprocity within the local population because it is a relatively new scheme, but that the investor-excluded local population relationship is characterized by positive indirect transfers because the investor conducts agricultural field days and supports its extension officers in these geographical areas.

These characterizations can help to clarify the contract farming scheme's overall impact on the local population. This information is important because large-scale investments can affect entire local communities; this chapter discusses this impact in the four contract farming case studies.

To further understand, in particular, the negative indirect transfers in these cases, the relationships are discussed in terms of holding power, as developed in Chapter 3. *Holding power* (Khan, 2010: 6), relates to the "ability to hold out in conflicts" (p. 6), and helps illuminate how some of the characterizations and outcomes of the relationships between contract farmers and investors are guided by power. While holding power is present in any relationship, who has holding power becomes most evident when conflict is present (Behuria et al., 2017). For both Kapunga and Mtibwa, holding power is clearly in the investors' hands. Understanding holding power is important because it helps to identify the points at which the contract farming scheme may experience changes due to the distribution of power across elements like organizational capacity and economic strength. Using relational characterizations as a starting point, holding power may be more easily explored.



This chapter discusses each case individually and shows how the excluded local population is potentially impacted by the contract farming scheme as well as what has potentially restricted farmers from gaining access to or entering the scheme. Access to the scheme is important in understanding how groups in the local population are differentiated. Using this information about exchanges and outcomes, I analyze the relationships within the local population and between the excluded local population and the investors in terms of asymmetrical reciprocity and indirect transfers. Finally, I discuss how applying holding power helps to explain the points of conflict in the relationships.

## 8.2. Relationships between Excluded Local Populations and the Investments

This section explores each case by focusing on the excluded local populations and their relationships to the other actors in the contract farming investments. Each case's elements of access and exchange are examined to clarify what characterizes the relationships between the excluded local population and the investment, considering both the excluded local population's relationship to the contract farmers and the investors in each case. These relationships will be discussed in terms of the analytical relational model from Chapter 3; and, where relevant, where and how holding power is revealed will also be discussed. Furthermore, the following subsections will include Section 8.2's discussions about differentiation within the local population, building on findings from Chapters 6 and 7. The information in the tables was drawn from the household survey data. Because the investment started in their community, households were asked about both challenges and benefits. Table 8.1 portrays some key household characteristics for the excluded local population surveyed in each of the case studies.

**Table 8.1 Household characteristics of the excluded local populations in the four case studies**

<b>Population group</b>	<b>Average household size</b>	<b>Most common highest completed level of education by household head</b>	<b>Average number of livelihoods per household</b>	<b>% of female headed households</b>	<b>Average land holding per household (hectares)</b>
<b>KSCL excluded local population (n=117)</b>	3.6	63% completed primary school	2.6	44%	1.1
<b>Mtibwa excluded local population (n=60)</b>	4.5	67% completed primary school	3.2	26%	1.4
<b>Kapunga excluded local population (n=58)</b>	5.1	84% completed primary school	3.2	20%	3.5
<b>MKRS excluded local population (n=52)</b>	4.9	76% completed primary school	3.7	25%	1.4

*Source: Household surveys, 2015*

Household size varies across the four cases, with the rice cases having the highest average household size. The excluded local population is similar across the cases in terms of household education and livelihoods. In contrast to the other three cases, almost half of all the excluded local population households surveyed in the KSCL case were headed by women. The Kapunga excluded local population stands out as having the highest average number of hectares comparative to the others.

### 8.2.1. Kilombero Sugar Company

The excluded local population group for KSCL consists of 116 surveyed households across two villages, Ruhembe and Kitete, from which the contract farmer households were sampled.<sup>54</sup>

These excluded local population households were asked several questions about the company's impact on their community to get an understanding of the contract farming investment's broader implications. These questions were formatted as multiple choice with the option to add additional impacts as the respondent wished. Table 8.2 summarizes the main impacts.

**Table 8.2 Impacts of investment on the excluded local population at KSCL**

<b>Excluded local population in KSCL case's perception of impact of the investment</b>			
<b>Positive impacts</b>	<b>% of farmers (n=116)</b>	<b>Negative impacts</b>	<b>% of farmers (n=116)</b>
Increase in prices or amounts of agricultural products	4	Decrease in loan access	31
Increase in demand for non-agricultural products	3	Decrease in demand for agricultural products	20
Improved roads	29	Decrease in road quality	6
Improved schools	36	Decrease in school quality	7
Job opportunities	20	No improvements	27
Village improvements	6	Pollution	3
<i>Other negative problems: lack of land and capital, harvesting issues</i>			

*Source: Household surveys: The respondents selected all the issues relevant to them. For the open question regarding positive or negative issues not listed in the survey, all the issues that were named by more than one respondent are included.*

Improved roads and schools seemed to be major positive impacts of the presence of KSCL. However, the road improvements could have been at least partially due to the EU-funded improvement project (Focus Group Discussion, KSCL contract farmers, 2015; Interview KSCL,

<sup>54</sup> See Chapter 4, Section 4.4.

2015). This infrastructural improvement has been beneficial to all actors. Furthermore, the improved schools could have been due to not only funds from outgrower schemes that go toward community development, but also the Kilombero Community Charitable Trust (KCCT), to which KSCL provides funds for schools and hospitals (Illovo, 2014; KCCT Interview, 2015).

Another significant improvement was the creation of job opportunities in the form of casual labor; many of the excluded local population members now use working on contract farmers' fields as casual labor as a source of income. Twenty-seven or 23% of excluded local population households in the KSCL case reported being involved with sugarcane farming in some way, including own production and casual labor for other sugarcane farmers. Furthermore, 8% of households said that they sold sugarcane to a member of an association, who then sold the sugarcane to the company; while this is not significant, there is still some selling of sugarcane going on outside of the contract farming scheme. Changes in the demand for and prices of agricultural and non-agricultural products as well as general village improvements were perceived by some of the population (again, possibly due to either outgrower schemes' community development or KCCT projects). The changes in the local market were also caused by other forces, but some excluded local population members did perceive KSCL's presence to be instrumental in these changes.

The contributions of the associations themselves to the village also seem to matter based on the following response of a participant in contract farming:

A lot of development has happened because every member of the association contributes 100TZS for the development of the community where they contribute [to] schools, hospitals, also different community development. For example, when there were floods at Kilosa, they were capable to buy food for those who were affected by the tragedy. The farmers have made a huge step in taking care of the community for there is the difference in the people's lifestyle. They have all things like shops, nice roads, groceries, etc. Also, they help to build secondary schools with the help of the government. They supported to build the school laboratory and teachers' offices at the school. Also, they help in the construction of the road where each member contributes

300tsh per ton for the road maintenance. Also, they have helped those who were not able to go to school and take them to school to the secondary level and some of the universities. The villagers' district office they work together with the outgrowers to know the problems of the community every harvest season. All the members contribute 100TZS for other development plans made during that period. Also, now people own motorbikes as the means of transport where before they were walking a long distance to go anywhere they wanted to go. (Focus group discussions, KSCL contract farmers, 2015)

This participant's response shows how the associations participate actively in community development in ways that seem to have a significant impact on the community. This aspect of the contract farming scheme should not be overlooked. This contract farming scheme illustrates how the entire local population can be affected positively, a fact discussed further in terms of how the relationship is characterized. These meaningful contributions were actually made possible through the KSCL investment in contract farming.

Not all the excluded local population's members who were surveyed perceived the KSCL investment as positive. Many households reported a decrease in access to loans and demand for agricultural products. Respondents expressed that it is more difficult to access loans if they do not grow sugarcane. The decreased demand for agricultural products reflects how much local demand there is for other households' agricultural products. These two factors might illustrate patterns of differentiation caused by the contract farming scheme. Farmers who are excluded are less able to access loans for livelihood activities and are less likely to sell the agricultural products they have.

When asked to comment on KSCL's overall impact on the village, one focus group discussion respondent said the following:

'It's true that we are neighbors to the factory (sugarcane mill), but each day the factory reduces and tightens the number of people that work there. They employ more capital-intensive ways of production (the use of more machines to irrigate and fertilize their

crops). As we speak, I do not understand how our village has no electricity, no tap water, and [no]medical dispensary. The electric line ends in the factory and its farms. With that being said, we can conclude that we haven't really benefited from the presence of a sugar factory and sugarcane farming as a whole. I do not know where the problem lies, if it's with our local government leaders or somewhere else. When we come to speak about employment, yes, there are jobs; but that's not enough for the whole village. Out of 100 people, you'll find that only 20 might be employed, [not enough]to make an impact to the money circulation in the village. To sum up, the benefits we get [are] minor as compared to the benefits that we should get. (Focus group discussion, KSCL excluded local population, 2015)

This respondent recognized the job opportunities that emerged as a result of KSCL's presence but argued that the overall impact was not enough to be seen at the village level. This person also recognized that the problem's complexity can be attributed to more than just the company.

Another respondent offered insight into how local agricultural markets are affected by contract farming:

The only benefits non-sugarcane farmers enjoy is that they get to sell their produce to the sugarcane farmers who do not grow any food crops in their farms because of their focus on growing sugarcane. In the long run if the price of sugar falls, then the sugarcane farmers end up in having less money to spend on the food products that we grow and have to offer. (Focus group discussion, KSCL excluded local population, 2015)

This response reiterates the comments from a few households about the impact of changes in the local agricultural market. It also emphasizes price instability and how lower prices for sugar could negatively affect the entire village.

#### *Access to the KSCL contract farming scheme*

The excluded local population experienced both positive and negative impacts, but why are these households not members of the contract farming scheme? Seventeen of the households

in the excluded local population group had previously grown sugarcane for KSCL. These households stopped for a variety of reasons, the most common being personal such as illness, death in the family, and age. Although less important, insufficient income and better opportunities elsewhere were also cited as reasons for stopping. Of the entire group of excluded local population households in the KSCL, 72% said they would like to enter the KSCL contract farming scheme. When asked what prevented them from entering the contract scheme, the main reason given was that they did not have access to capital to start growing sugarcane, which was mentioned 89 times, including by some of the households uninterested in entering the scheme. Access to land was mentioned 49 times, including by households who had rented their land out and were waiting to get it back before trying to pursue sugarcane farming. Another issue relevant to very few households was the lack of access to schemes, sometimes indicated by the inability to get the ID card needed to grow sugarcane for KSCL, indicating there were problems in applying to be a contract farmer. Land and access to capital were central reasons households could not participate in contract farming with KSCL. Although no formal requirements regarding land and capital exist to start growing sugarcane, these assets are still essential for any agricultural production undertaking.

Furthermore, some of the focus group responses clarify the relationship between capital, land, and the ability to start growing sugarcane. The following response illustrates the uncertainty farmers face:

For example, you own an acre of land that you have used for sugarcane. This type of crop takes a year to harvest point. Because you only have an acre of land, you find that it's not enough to grow both sugarcane and food crops for you and your family; hence, you end up planting something like maize or rice because they do not take that long to harvest point. If you are lucky and it's a good season, you might be able to grow maize twice in one year, unlike sugarcane. So, growing something like sugarcane costs you in the long run because you end up getting so little revenue. That is, you might end up getting 200,000 TZS at year's end. What are you going to do with 200,000 TZS if the farm

also needs to be taken care of in terms of manure and pesticides and other costs?  
(Focus group discussion, KSCL excluded local population, 2015).

This respondent highlights the challenge of having enough land, the long-term investment that makes growing sugarcane problematic, and the fact that food security is also an issue affecting choice. Another respondent noted the following:

If you consider renting one, you'll find it to be too expensive (50,000 TZS an acre). Preparing it will also be about 50,000 TZS. At this point, you haven't even bought the sugarcane that you are going to plant and let alone know where you'll find it. Even if you find someone to offer you the sugarcane seedlings to plant, they'll ask you for about 200,000 TZS which you have no idea where you'll find such an amount of money. If you harvested five bags of rice in the previous season, there is no way that you are going to sell these bags in order to grow sugarcane. In short, we do not have the capital to cultivate sugarcane. (Focus group discussion, KSCL excluded local population, 2015)

The problem of having enough start-up capital to risk investing in sugarcane is a common theme in these responses. Another respondent suggested that with the right start-up capital, planning can reduce risks:

If I had the kind of funds these sugarcane farmers have, I would go back to my two acres of land and cultivate them properly then buy some fertilizers and set aside enough money for removing the weeds in the future. I know that my harvest will increase because of the money I invested in the farm. After doing that, I will use the remaining sum of money to start a business [...] I will not buy household items like a TV because once you buy those they just sit around and not make you any money. (Focus group discussion, KSCL excluded local population, 2015).

Although not participating in contract farming due to lack of capital, the above respondent saw contract farming as something that would generate positive benefits and incomes. This



response again emphasizes that even though not included in it, members of the local excluded population view the contract farming scheme as something favorable, albeit high risk.

These explanations illuminate how participating in the KSCL contract farming scheme involves access to resources, chiefly in terms of land and capital. Households who do not have these assets are often uncomfortable taking the risk of participating in contract farming. Thus, while not an official barrier, lack of resources restricts entry into contract farming schemes in the KSCL case.

*Characterizing the relationships among the excluded local population and the contract farming scheme*

When contract farming involves not only benefits for the excluded local population but also complications in getting access to the scheme and resources, how can the excluded local population and its relationship with either the investors or the included local population (contract farmers) be characterized using the relational analytical framework from Chapter 3? The relationship between contract farmers and the excluded local population is marked by exchanges such as casual labor jobs for the excluded local population on the contract farmers' fields or, in some cases, side selling from the excluded local population to the contract farmers. As mentioned above, 23% of households in the excluded local population group reported some involvement with sugarcane activities. The included local population benefits by being able to have help on their fields. Furthermore, in cases where they do not produce enough sugarcane, they can purchase sugarcane from their neighbors and uphold the demands of the contract and the association. The excluded local population then gains employment as well the opportunity to sell sugarcane. These exchanges indicate a reciprocity—i.e., each side gets something from the other. However, unlike the symmetrical reciprocity of the contract farmer-investor relationships, this relationship is characterized as being one of *asymmetrical reciprocity*. There are exchanges, but they are not even or consistent. Casual labor jobs and the occasional selling of sugarcane are not exchanges accompanied by any security or guarantee, and the excluded local farmer is always at the contract farmer's mercy to provide the opportunity for these exchanges to occur; hence the asymmetry. It is important to note that these exchanges are taking place, because they speak to how contract farming can impact an entire community (Key

and Warning, 1999). However, these exchanges are heavily dependent on the contract farmer, thus keeping contract farming's positive impact on the local community at KSCL somewhat conditional.

The relationship between the excluded local population and the investor can be described as being characterized by positive *indirect transfers*, to use the analytical framework model. This relationship is not formalized, but several elements of KSCL's presence indirectly affect the excluded local population. The transfers can be categorized into two groups. The first group consists of transfers created through the contract farmers—referring to the exchanges within the local population (e.g., casual labor and side selling) and to the associations' broader impacts (e.g., those of community investments and local markets), which are indirectly related to the company. While a few households are possibly involved as casual laborers at KSCL, the company relies heavily on migrant labor to meet the seasonal labor needs (Sulle, 2017b). If KSCL were not present, these indirect transfers would not be taking place. The second category of indirect transfers includes those covering KSCL's interactions with the local community. For example, donations by the company to build up the local communities are indirect transfers, in that KSCL is doing this work as part of its commitment to the investment. Another example is road improvements, which although funded by the EU, were intended to help improve travel time to the sugar mills, which are owned by KSCL. The road improvements have also positively affected the excluded local population, leading to reduced travel time and costs for them, which are another indirect transfer. While the KSCL case is not without its problems in the local community (see Table 8.2), many indirect transfers to the excluded local population are beneficial. As discussed at the end of this chapter, KSCL is the case that appears to the most well-received and embedded in the local community.

Holding power in the KSCL case was discussed in Chapter 7 in terms of the relationship between the investor and the contract farming associations, as well as within the associations. The question is whether holding power is also revealed in the relationships surrounding the excluded local population at KSCL. While there are a few tensions in the relationships between the excluded local population and the investors or contract farmers (e.g., tensions surrounding

the decreased ability to access loans), these tensions do not seem to be escalating towards a clear conflict.

### 8.2.2 Mtibwa Sugar Estates

The excluded local population in the Mtibwa case was represented by 59 households in the villages of Kisala and Kichanga, where the contract farmers were surveyed. Table 8.3 lists the negative and positive impacts of the Mtibwa sugar investment in their communities.

**Table 8.3 Investment's impacts on the excluded local population at Mtibwa**

<b>Mtibwa excluded local population's perception of the impacts of the investment</b>			
n=59			
<b>Positive impacts</b>	<b>% of farmers</b>	<b>Negative impacts</b>	<b>% of farmers</b>
Increase in prices or amounts of agricultural products	0	Decrease in loan access	7
Increase in demand for non-agricultural products	0	Decrease in land holdings	5
Improved roads	2	Decrease in road quality	3
Improved schools	3		
Job opportunities	3	No improvements	22
Bridge construction	2	Payments too low or late	36
		Worsened relations with company	7
		Harvesting issues	5
		Lack of support of local government	8
		Water management	5
Other negative problems: association problems, lack of inputs, pollution, overgrazing			

Source: Household surveys from Mtibwa excluded local population n=59.

As seen in Table 8.3, the excluded local population identified very few positive impacts of the scheme; only a small percentage said that there were improvements in infrastructure, schools, and job opportunities. On the contrary, a number of negative issues were identified, many of them relating directly to the investment. The most common concern was that the payments to



*Village council office in Kisala near Mtibwa. Photo by author, 2015*

the contract farmers from the company were too slow or too late. This is what the excluded local population saw happening to their neighbors, as well as to themselves; 29% of the group identifying as “excluded local population” used to be contracted to Mtibwa. Therefore, 29% of the excluded population used to be the included local population but chose to leave the contract farming scheme. Other negative impacts identified are worsened relations with the

company, combined with a lack of support from the local government. Other issues listed are not necessarily due to the company, such as problems of overgrazing, reflecting a local conflict between cattle owners and farmers.

#### *Access to participation in the Mtibwa contract farming scheme*

The Mtibwa case is unique in that 29% of the Mtibwa excluded local population once grew sugarcane for Mtibwa but had stopped. In most cases they stopped due to a lack of sufficient income/profitability and better opportunities elsewhere, and a few stopped due to personal reasons (e.g., age, death of family members, etc.). When the entire excluded local population group was asked whether or not they would like to become sugarcane outgrowers if given the opportunity, only 44% said they were interested (in contrast to 72% in the KSCL case). Almost all of those who were interested responded that they did not have access to capital to begin growing sugarcane, and about half of them said they also did not have enough land to

participate. When asked why their households were not interested in participating in contract farming, they listed the issues identified in Table 8.4 (farmers could list all applicable reasons).

**Table 8.4 Reasons excluded local population households were not interested in contract farming**

<b>Reasons why contract farming is not appealing</b>	<b>% of households recognizing this issue (n=59)</b>
Risk too high	37%
Income too irregular	14%
Not profitable enough	51%
Fear of food insecurity	17%
Dysfunctional system with Mtibwa	3%

Source: Household surveys for Mtibwa excluded local population n=59.

The above responses reveal the multiple issues with the Mtibwa scheme, and 37% of households reported that the risk was too high. The limitations in the Mtibwa case were not just about capital and land, but also about the company and the lack of local trust in it. While some farmers in Mtibwa claimed that exclusion from the scheme is about lack of resources and access (as in the other cases), the difference here is that the investment had such a poor reputation that contract farmers were leaving it.

*Characterizing the relationships among the excluded local population and the contract farming scheme*

When considering how the excluded local population in Mtibwa relates to the contract farmers and the investors, the relationships seem to be quite different to those in the KSCL case. Regarding the contract farmers and the excluded local population, there seem to be few to no exchanges. A few cited jobs; otherwise, exchanges were not reported. Only three households in the excluded local population group reported having any labor engagement with sugar sector activities. It is difficult to describe the relationship as one showing asymmetrical reciprocity because very few exchanges between the two groups of actors occur. If it is to be called one of asymmetrical reciprocity, then the relationship should look more like those at KSCL. However, when examining the relationship between the excluded local population and the investor, there is more evidence of a relationship described by indirect transfers although this evidence is contested. First, 29% of the excluded local population reported having previously sold

sugarcane to Mtibwa as part of the contract, before quitting largely due to lack of on-time payments and problems with the company. The rest of the excluded local population was still affected by the investment, and 44% of the excluded local population saw the risk of entering a contract with Mtibwa as being too high due to the company's poor reputation and inconsistencies in payment from the company. Based on the analytical model, it is then questionable whether the relationship can be characterized by indirect transfers. I argue that it can, but it is not a positive relationship. The indirect transfers are (a) the shared history of failed partnership among the local population's excluded members and (b) negative experiences associated with the company. The analytical model is intended to describe functioning schemes; however, in this case, the relationships are present but are not positive. However, indirect transfers can be assumed to be either positive or negative.

#### *Holding power: Mtibwa*

In terms of holding power and the relationships surrounding the excluded local population, there is evidence of how holding power is revealed in the face of conflict. The conflict in the scheme involves Mtibwa's reputation, in that the investor is notorious for not paying for sugarcane on time and for poor relationships with sugarcane associations. As a side note, the local government is incapable of negotiating or does not wish to negotiate with the company. Thus, sugarcane farmers left the scheme. In terms of holding power, these farmers were unable to absorb the costs inflicted on them—i.e., to hold out for very delayed payments. Thus, the company revealed its holding power in this case in that it was unaffected by contract farmers' leaving, perhaps due to the number of farmers in the area it could draw from. The company also does not seem to need to maintain good relationships with the local population, perhaps due to political ties. This situation is in huge contrast to the way that KSCL behaves in the local population. Mtibwa's holding power likely lies in its economic capacity and perhaps more so in its ties to political elites, which remain well hidden and difficult to identify concretely. However, in an article about resilience among farmers at Mtibwa, West and Haug (2017) reported that, according to some of their respondents, the company is "widely rumored to be connected to a high-level former CCM politician and his family" (p. 681). If this is true, it may explain why Mtibwa continues functioning despite a poor reputation and a poor relationship with the local

population. West and Haug (2017) also raised the issue in a similar way: “It is unclear whether the estate and its OG scheme are economically viable and potentially profitable or are simply being protected against their creditors and potential competitors through patronage” (p. 681).<sup>55</sup> Although the contract farmers are organized at Mtibwa, this organizational capacity is insufficient to counter the investment’s seeming disregard for the contract farmers and for the entire local population. Thus, holding power is revealed to be in Mtibwa’s hands, most likely due to shrouded political connections because the contract farmers are no longer holding out as evidenced by the exit of many contract farmers.

This situation raises an interesting question. Both Mtibwa and KSCL are mills with their own land and cane; especially in the case of KSCL, the mills are almost at their full processing power. KSCL pursues a good relationship with not only the excluded local population by supporting various community and infrastructure projects but also the contract farmers by working with multiple associations despite increases to their costs and time spent dealing with the farmers. Mtibwa does not seem to be heavily invested in the local population, and its negative reputation precedes it. If both companies are not dependent on the sugarcane from the local population, why does KSCL act differently? I would argue that this difference (although beyond this dissertation’s focus) is likely related to the investors’ relationships with the ruling elites. KSCL is owned by the South African company, Illovo Sugar, which is, in turn, owned by Associated British Foods, meaning that it is foreign owned. Mtibwa is likely connected to the ruling national party, CCM (West and Haug, 2017). If Mtibwa is protected by ties to the political elite, perhaps it is not held to the same standard as foreign investors, such as those who own KSCL. This is an example of how the relationship between investors and ruling elites reveals important tensions and bonds that may influence how the investment behaves overall (Buur et al., 2019).

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<sup>55</sup> Kagera Sugar, another of the major sugar investments in Tanzania, is also owned by Superdollar. Interviews with farmers there revealed rumors about the investor being connected to former CCM members, as Bélair (2019) discusses in her doctoral dissertation (p. 251).

### 8.2.3. Kapunga Rice Plantation Limited

In the Kapunga case, members of the excluded local population have experienced the company's presence negatively—although in this case, unlike Mtibwa, the conflict is primarily related to a historical clash over land. Kapunga's excluded local population group consists of 58 households from the village of Kapunga, which is adjacent to Kapunga Rice Plantation Limited, and is thus directly next to the investor and its land.

**Table 8.5 Impact of investment on excluded local population at Kapunga**

<b>Kapunga excluded local population's perception of the investment's impact (n=58)</b>			
Positive impacts	% of farmers	Negative impacts	% of farmers
Increase in prices or amounts of agricultural products	0	Decrease in loan access	2
Increase in demand for non-agricultural products	0	Decrease in land holdings	10
Improved roads	3	Decrease in demand for agricultural products	33
Improved schools	14	Decrease in road quality	29
		Decrease in school quality	22
		Lack of safe drinking water	36
		Bad or exploitative relationship with company	28
		Lack of sufficient health services	21
		Restriction of road access	17
		Lack of water for irrigation	16
		Inputs too costly	14
		Pesticides spreading to other fields	12
Other reasons include poor infrastructure, land loss, and accusations of fault in death.			

Source: Household surveys, Kapunga excluded local population, n=58.



Improved schools and roads are the only positive impacts perceived to have been felt by the



*Brief look at school built by Kapunga. Photo by author, 2015*

local communities; however, these two areas are debatable because decreased school and road quality were also listed as negative impacts. Concerning negative impacts on the community, this case stands out among the four as being the most disharmonious. The major negative impacts include decrease in demand for agricultural products, decrease in road and school quality, and lack of access to safe drinking water; 28% of this group also cited a

problematic relationship between the company and the villagers. The list continues with issues like the company blocking roads during harvesting time, pesticides spreading into villagers' fields, and even a few accusations of the company being involved with deaths in the local population. This data also matches what Greco (2015b) recorded in that, following privatization, the new managers dealt with issues in a violent way by burning the homes of families living on what was considered the investor's land and by cutting off access to water for approximately 100 farmers' fields. Although some of these issues were not necessarily caused solely by the company, the number of issues and the respondents' high response rate indicate that this relationship is highly strained.

These findings contradict what the company has claimed about building a school and providing access to water (Interview, 2015) and creating 3000 jobs for young people through both its own rice cultivation as well as that of the Kapunga contract farmers (The Citizen, 2018b).

Additionally, as Greco (2015b) argues, given the material differences among groups of farmers (identified as distinct groups among the Mbarali villagers, who had varying connections to Kapunga's privatization, ranging from poor landless workers to middle-class farmers to rural capitalist farmers), it was difficult for the farmers to forge a common front and benefit from the

estate's privatization, compounded by the specific relationships to the state and investors. This finding supports the material in Chapter 5, showing that some of the contract farmers at Kapunga are physically removed from the investment, thus making it even harder for them to create relationships that might influence the company to make changes in the local community.

Although Kapunga claimed that it provided clean water to the broader Kapunga community (Company interview, 2015), the local population contested this claim. Of the households not participating in contract farming with Kapunga, 47% reported they had restricted or no access to irrigation and/or clean drinking water. Thus, the relationship between Kapunga and the excluded local population is negative and not functioning well with seemingly few to no exchanges between the two. Unlike Mtibwa, though, Kapunga's physical presence appeared to be more contentious for the local populations, likely due to factors such as Kapunga Village's geographical closeness to the investor's rice mill as well as the historic land conflict. This case reveals a local population in which over time many households and families have been alienated from the land first by the state and then by a private company with strong connections to political elites.

#### *Access to the Kapunga contract farming scheme*

In the Kapunga case, all households in the excluded local population group grew rice, but none had previously worked as contract farmers for Kapunga. Forty-seven percent of these farmers said they were interested in a contracting scheme selling rice, 31% said lack of capital was why they could not engage, and only a few farmers said lack of land was holding them back. Several farmers also said they had not joined because they did not know much about the scheme and the company never asked about nor was interested in them. A few cited poor terms of contract and no family contacts at the company. When asked why they did not want to engage, 14% said the risk was too high, 26% said it was not profitable enough, 10% said they feared food insecurity, and a few cited old age. As introduced in Section 6.3.2, 63% of the Kapunga contract farmers cited some form of prior relationship with the company as a reason they gained access to the contract, indicating that access to the contract farming scheme was exclusive in the sense that farmers entered based on informal relationships with the company and on their local power status. This information may also have implications for the processes of differentiation

because differentiation is noticeable between contract farmers and the excluded local population.

*Characterizing the relationships among the excluded local population and the contract farming scheme*

Similar to the Mtibwa case, there is not a clear connection between the excluded local population and the contract farmers working with Kapunga, at least in part because half of the contract farmers are not located at the farms, instead running the farms by proxy from other cities and regions. Thus, the lack of geographical proximity has meant a lack of relationships, at least according to the excluded local population. As with Mtibwa, the relationship cannot be described as one of asymmetrical reciprocity because seemingly very few to no exchanges are occurring. However, when the focus turns to the excluded local population and the investor, there is strong evidence of a relationship and indirect transfers, which are mostly negative, as with Mtibwa. The Kapunga company cited a few local community investments, such as schools, some jobs, and access to cleaner water; but the excluded local population in the household survey seemed to see the situation very differently, with the exception of schools, in which 24% of the excluded local population stated that schools improved due to the company's actions. None of the households from the excluded local population for Kapunga reported casual labor activities, which could have been a source of a potential link to Kapunga, as Kapunga hires casual labor<sup>56</sup>. On the negative side of the indirect transfers, responses highlighted several issues (e.g., land holdings decreasing, lack of safety, lack of water, etc.) (see Table 8.5). These are indirect transfers in that they are not based on a direct formal relationship between the company and the excluded local population, but they are significant for the excluded local population. The history of conflict regarding land is likely a big contributor to the current tensions. Again, this relationship is similar to the one between Mtibwa and the excluded local population in that the investor's presence strongly affects the excluded local population, but the relationship is not positive. It is helpful to look at this relationship in terms of holding power.

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<sup>56</sup> It is unclear whether or not this could have been an oversight in my data collection.

#### *Holding power: Kapunga*

In terms of holding power and the excluded local population in Kapunga, the relationship considered is that between the excluded local population and the investor. The excluded local population perceives Kapunga very negatively, and this perception combined with local efforts to lobby the government is likely part of what caused the land's return to the local population in 2015 (Kahango, 2015). Here, it is evidenced that the local population gathered enough organizational power in the face of conflict to get some land returned, thus yielding holding power. However, when thinking more about this dissertation's approach and the focus on the contract farming scheme, holding power still seems to be stronger on the company's side. Specifically, this is because despite the number of negative complaints about the company that are not just about land, but also about water and community impacts, the excluded local population lacks enough organizational capacity to take on the company, whereas the investor seems to have enough economic power to absorb the negative reputation imposed upon it by the excluded local population. However, this relationship, like the Mtibwa one, is also linked to how the investor and the local population are connected to ruling elites. While Kapunga is historically well-connected to CCM and the ruling elites (Africa Confidential, 2013; Therkildsen, 2011), the 2015 move to return land may reflect a shift in their relationship. This case also helps in understanding Buur et al.'s (2019) framework in that the relationship between the investor and ruling elites appears to be important for the overall impact of the large-scale investment. Although land was transferred back to the local population in 2015, statements of assurance that this transfer would happen were made in 2009 and 2011 by the Minister of Agriculture, Food Security and Cooperatives. Thus, the process from the initial intention until final implementation took six years (Kahango, 2015), which may have had been related to the relationship between the ruling elites and the investor, but this is unclear.

#### *8.2.4. Mtenda Kyela Rice Supply*

The newest of the four contract farming cases, the MKRS case is an investment whereby the community does not grow its own rice, but rather purchases from surrounding rice-growing communities across several districts. Table 8.6 identifies the investment's impact on the local communities in the MKRS case.

**Table 8.6 Impact of investments on the excluded local population at MKRS**

<b>MKRS excluded local population's perception of the investment's impact (n=52)</b>			
Positive impacts	% of farmers	Negative impacts	% of farmers
Improved schools	4	Decrease in loan access	2
Improved irrigation	19	Decrease in demand for agricultural products	4
Improved roads	15	Decrease in road quality	2
		Lack of sufficient water	4
		Product stolen by company	2

*Source: Household surveys, excluded local population MKRS, n=52.*

This case differs from the others in that the contracting scheme is still quite new although MKRS had previously sourced rice from these communities. Therefore, few farmers had strong opinions about the investor’s impact at the time of fieldwork. Irrigation and roads seem to have improved; but there were a few concerns about loans, agricultural product demands, and water access. However, not all these factors can be attributed to the investor alone; some are attributable to the general challenges faced by rice farmers in this area. MKRS is also geographically removed from the areas where they contract, possibly impacting the above responses; and their lack of physical presence might also explain why farmers did not start contracting with them, as seen in the next section.

*Access to the MKRS contract farming scheme*

Among the MKRS case’s excluded local population, 39 farmers were already independent rice growers, 1 was working in another association/contract, and 13 were not growing rice. Of the farmers, 32% did not want to join a contract scheme but 61% did (non-response from others). Twenty-five percent said they were not given the opportunity to join, and 23% said they had never heard of MKRS. Only 13% said that lack of capital was why they had not started contracting and 8% cited lack of land as a reason. When asked why they were not interested in a contract, farmers listed income irregularity and lack of profitability as main reasons; and only a very few listed risks as being too high and food insecurity as reasons.

Rice, unlike sugarcane, can also be used by households as a staple food product; thus, cultivating rice contributes to a household's overall food security. One reason many of the farmers in this group would be willing to engage with MKRS if they had the opportunity is that additional capital and risk are not necessarily required to enter. As mentioned in Chapter 5, when piloting the scheme MKRS found that it was beneficial to go through already established irrigation schemes, consistent with the idea that investors strategically select organized farmers to find the most appropriate ones (Barrett et al., 2012). In this group, only 11 respondents were members of irrigation schemes or rice grower associations; therefore, they did not encounter MKRS through scheme membership nor did they have an organizational identity related to rice growing. This excluded local population was largely removed from the organizations that gave the MKRS contract farmers knowledge of and access to the contracts. Similarly, processes of economic differentiation are possibly in progress. Poorer farmers are excluded from the contract farming schemes as they do not have access or the necessary knowledge to participate, leading to economic differentiation within the local communities (Little and Watts, 1994; Minot, 2009; Key and Runsten, 1999). These groups report not having the same types of access to markets and inputs as their contracted counterparts.

Based on this data, it could be assumed that more farmers would have signed the contract if they had been given the opportunity because of the advantages of becoming a contract farmer. Thus, lack of information and education about the contracts, stemming from a lack of access via either a formal or informal relationship, restricts farmers' access to opportunities for more secure inputs and better opportunities to sell their rice.

*Characterizing the relationships among the excluded local population and the contract farming scheme*

In the relationship between the excluded local population and the contract farmers in the MKRS case, there is (as with Kapunga and Mtibwa) little evidence of asymmetrical reciprocity; yet, given the scheme's newness, such reciprocity could occur at a later stage. On the other hand, when considering the relationship between the excluded local population and the investor, there is evidence of indirect transfers benefiting the local population as a whole. This evidence is based on the fact that MKRS conducts agricultural field days in the areas where they

have contract farmers, to which they invite the entire local population. This is an indirect transfer in that MKRS invites participation from the entire excluded local population. This is particularly a positive indirect transfer in that programs which encourage agricultural education amongst farmers, such as Farmer Field Schools as studied by Friis-Hansen and Duveskog (2012) in East Africa have been known to increase empowerment and provide routes to increased well-being amongst farmers participating (p425). MKRS also reported supporting government extension officers by helping to pay for their fuel costs when traveling to various villages (Interview, 2015). This willingness to pay the costs is due to a desire to impact the contract farming communities as well as to raise the rice quality level in general since MKRS still sources at the open market for rice. In this way, MKRS delivers important services to contract farmers and supports the state extension service, creating connections to important power brokers going beyond the contracts with individual farmers. While still not the main draw to the contract, MKRS's extra-contractual efforts are indicative of a relationship which strives to improve the lives of the local community. If continued, these indirect transfers will be a positive impact on the excluded local population. This information is important for understanding the contract farming investment's overall impact.

In the MKRS case, holding power between the excluded local population and the company is difficult to describe in that there is no clear evidence of conflict which could reveal tensions and power.

### 8.3 Conclusion

This chapter has addressed the following research question: *What characterizes the relationships between the excluded local populations and contract farmers, as well as the relationships between excluded local populations and investors, in terms of processes of exchanges, access, differentiation, and power?* The first part of the question has been answered by examining each case individually and seeing how the relationships between the excluded local population and the rest of the actors in the contract farming scheme work. KSCL was the only case in which a clear, well-defined relationship between the excluded local population and the contract farmers was present. Characterized as asymmetrical reciprocity, this relationship

has, despite a few negative effects, many benefits and illustrates how the contract farming scheme has created impacts that reach beyond the contract's bounds. However, the other three cases did not show this reciprocity. This finding fits, in part, with contract farming literature that says differentiation happens due to contract farming or that the rest of the population does not benefit from the presence of contract farming (Sulle, 2017b; Havnevik et al., 2007). When considering the relationship between the investors and the excluded local population, all the cases were characterized by some type of indirect transfer as theorized in the analytical model. However, the types of indirect transfers across the cases were quite different. For Kapunga and Mtibwa, the indirect transfers were largely negative, and the community-perceived impact was that the investment was problematic in several ways. For KSCL and MKRS, on the other hand, the indirect transfers were largely positive; and the community perceived the investment as having some benefits. These results reveal that the analytical model's characteristics can vary with each case and that the types of indirect transfers vary in terms of being positive or negative. Furthermore, these cases also showed, particularly for Kapunga and Mtibwa, that connections to ruling elites may be related to how the investment affects the local community; supporting Buur et al.'s (2017, 2019) framework that calls on the importance of analyzing the relationship between investors and the ruling elites in understanding the entire investment picture.

Furthermore, when considering why the excluded local population was unable to access the scheme, two points can be made. First, all the investment's impacts, through the relationships with the excluded local community contribute to processes of inclusion or exclusion, which can lead to processes of differentiation. For example, KSCL's impacts contribute in part to processes of inclusion, because the local community benefits. This phenomenon is also partially visible in the MKRS case because of inclusion processes; but the portion of the excluded local population which remains isolated from markets and associations, such as irrigation schemes, continues to be affected by these exclusion processes. Secondly, in the cases of Kapunga and Mtibwa, exclusion processes are parallel to the already present and possibly growing differentiation between the two groups as portrayed through the conflict between the local population and



the investor. In the case of Kapunga, the conflict is primarily over land; and in the case of Mtibwa, it is primarily over reliability. Finally, the relationships involving excluded local populations also indicate something about holding power in the cases. For MKRS, holding power is not evident, possibly due to the scheme's newness as well as the relative abundance of land. In the Kapunga case, the investor has considerable holding power; but the local communities' organization has led to some changes due to the return of land to the local communities. In the Mtibwa case, the holding power is revealed to be with the investor in that the farmers cannot hold out and are leaving the scheme. For KSCL, holding power is revealed in the tensions between the excluded local population and the contract farmers, as the latter are better organized and more financially secure.

The empirical evidence from these four cases is well situated in the contract farming literature, which speaks to differentiation, bargaining power, relationships, and contract farming's benefits. The overall impact of contract farming schemes is about differentiation but also, in a broader sense, about understanding processes of agricultural transformation, for which I will offer perspectives in this dissertation's conclusion.



# Chapter 9. Reflections and Conclusions of the Dissertation

## 9.1 The Aim of the Study

This dissertation contributes to the literature and debates on contract farming by analyzing empirical cases of the rice and sugar sectors in Tanzania. Through applying new analytical frameworks, the aim of this study is to characterize and understand the relationships formed among the various actors of contract farming schemes, including a focus on the excluded local population. Within the characterizations of these relationships, understood by identifying the exchanges and outcomes from these relationships, distribution of power and processes of differentiation are examined. This aim is formulated in the following overall research question which guides the study: *What characterizes large-scale agricultural investments in contract farming in the rice and sugar sectors in Tanzania and how does this relate to power and differentiation (of local farmers)?* This question is broken down into four working sub-questions, each tied to one of the empirical Chapters, 5, 6,7, and 8.

1. How are the rice and sugar sectors important for Tanzania's agricultural development and what describes the relevant contract farming schemes in these sectors?
2. What is exchanged in rice contract farming schemes in Tanzania, and how do these exchanges influence the outcomes of these contract farming schemes?
3. What is exchanged in sugar contract farming schemes in Tanzania, and how do these exchanges influence the outcomes of these contract farming schemes?
4. What characterizes the relationships between the excluded local populations and contract farmers, as well as the relationships between excluded local populations and investors, in terms of processes of exchange, access, differentiation, and power?

### 9.1.1. Question 1 Context of Sugar and Rice Cases

Chapter 5 addressed the first working question by examining Tanzania's agricultural sector, the sugar and rice sectors, and the individual cases in this study. Both the rice and sugar sectors are facing challenges in the form of illegal importation, market failures, and increased awareness of environmental concerns. The rice sector is important to Tanzania in that increasing production will help combat food insecurity and stand up to risks due to climate change. The sugar sector is important to Tanzania in that increasing production will help meet national demand for sugar and eliminate the need for sugar imports as well as increase smallholders' incomes; a bolstered sugar sector may also provide an important platform for biofuels. The relevant cases in both sectors are varied forms of contract farming schemes involving many contract farmers. The cases vary in their structure and ownership; but in general, the contract farmers have access to more land than those not engaged in contract farming, indicating differentiation before or because of participation in the contract farming scheme.

### 9.1.2. Question 1. Rice Schemes Exchanges and Outcomes

Chapter 6 addresses the second working question. The rice schemes, MKRS and Kapunga, both offered a number of exchanges to the contract farmers and investors, and a number of overall positive outcomes. The contract farmers in both schemes received inputs and access to credits and markets through being in the contract farming scheme. The Kapunga contract farmers receive access to land. Both groups of contract farmers attribute well-being to contract farming, and they reinvest their income from contract farming into other activities, both agricultural and non-farming. Both investors received high-quality product, and MKRS received indirect access to land. Using the relational model on local-level investments in contract farming, the relationships between the contract farmers and investors are characterized as having symmetrical reciprocity. These relationships allow for exchanges and outcomes that drive the two groups of actors in the contract farming investment. Having symmetrical reciprocity is important in that it helps to describe what drives the contract farming investment to continue. Holding power can also be identified in the relationships between the contract farmers and investors in these two cases. For the Kapunga investors, the company's economic strength and connections to political elites contributes to its holding power. For the MKRS investors, their

holding power is also related to economic strength, but the contract farmers' holding power likely lies in their organizational capacity, which can be used to negotiate a better contract if conflict should arise.

### 9.1.3. Question 3: Sugar Schemes Exchanges and Outcomes

Chapter 7 addresses the third working question. The sugar schemes, KSCL and Mtibwa, like the rice schemes, are characterized by exchanges between the contract farmers and the investors. Unlike the rice schemes, the sugar schemes involve an important third group of actors – the sugarcane farmers' associations. For the sugar schemes, the association is the outlet where contract farmers receive inputs, access to credits, and help getting their sugarcane to the respective mills. The association's internal structure and relationship to the company is important for its ability to meet the needs of the individual contract farmers. For KSCL, contract farmers received positive outcomes due to contracting, reported as increased well-being due to contracting and reinvestment of income from contracting into both agricultural and non-farming activities. The KSCL contract farmers reported that switching contract farming associations helped them to gain a better relationship with the investor. The contract farmer-association-investor relationship can be described as having symmetrical reciprocity as each side gains from the contract farming scheme and is driven by the exchanges and outcomes. However, for Mtibwa, the relationship is different. While there are some exchanges, most farmers report being worse-off since starting contacting with Mtibwa. While contract farming is still continuing, it is not described as a relationship of symmetrical reciprocity because contract farmers are leaving the scheme and the drive behind contracting that is present in the other three cases in this dissertation is not present for Mtibwa contract farmers. This relates directly to holding power. Mtibwa's ties to political elites and its economic strength due to being part of a larger national firm indicate that Mtibwa has a great amount of holding power. Even though Mtibwa's contract farmers are organized, this does not seem to offer much in terms of negotiating ability with the investors. In contrast, KSCL's holding power is less clear in terms of who has more. The contract farmers at KSCL have great organizational strength, although the increasing fragmentation of sugarcane farmers' associations may break this strength down. The

investors have holding power in their economic strength but likely do not have the political elite ties that Mtibwa does.

#### 9.1.4. Question 4: The Excluded Local Population

Chapter 8 addresses the fourth working question. It focuses on the excluded local populations in the four contract farming schemes. The relationships between the excluded local populations and contract farmers can be described as one of asymmetrical reciprocity, when there are clear exchanges between the two groups of actors and when there are outcomes related to this relationship. However, the KSCL case is the only one where this relationship can clearly be characterized as having asymmetrical reciprocity. The excluded local population members at KSCL have access to casual labor jobs, side selling of sugarcane to contract farmers, and experienced an increase in demand for other agricultural goods due to contract farming. The relationships between the excluded local populations and the investors in these four cases are all characterized by indirect transfers. These relationships in the KSCL and MKRS cases are mostly characterized by positive indirect transfers. Both companies have invested in the local community, and the excluded local population benefits from having the investor in the local community. The relations in the Mtibwa and Kapunga cases, on the other hand, are mostly characterized by negative indirect transfers. These two cases also illustrate how holding power can be linked to economic strength and ties to political elites. However, the excluded local population, through its ability to organize and lobby the government, also demonstrates holding power in that the government returned land from the Kapunga investor to the local communities.

## 9.2 Reflections on the Dissertation's Theoretical Contributions to Gaps in the Contract Farming Literature

The relational model on local-level investments in contract farming and the subsequent application to the four cases in this study contributes to understandings of relationships in contract farming. It addresses the gap on analyzing relationships in contract farming by offering a model that allows for characterizations of relationships through identifying exchanges and outcomes. In doing this, drivers of the contract farming scheme are identified, contributing to

our understanding of what motivates contract farming actors and why they remain engaged in contract farming, even when faced with inequality. In characterizing these relationships, the model also provides a basis for discussing where power is negotiated and how differentiation has or is taking place within and among these relationships. This study has also contributed to an expansion of the concept of power, going beyond bargaining power, in contract farming by utilizing the holding power concept in these four empirical cases. Through this application, power's distribution both within and outside the contract farming scheme itself is explored, as well as how it might change over time.

*Reflections on holding power and differentiation in the excluded local population*

Many members of excluded local populations expressed a desire to participate in contract farming, but they lacked the necessary economic strength or organizational capacity that the included local population used to gain access to contract farming. Lack of economic strength and organizational capacity are two of the main determinants as to whether or not farmers can enter into contract farming. Farmers were often unable to get access to the contract farming schemes because of a lack of land and inputs, as well as a lack of knowledge or awareness of the scheme. In terms of holding power, the excluded local population is not capable of absorbing the costs imposed by the other stakeholders; in this case the minimum standards for entry into the scheme. This initial level of differentiation may contribute to increased differentiation with time, which is one of the negative outcomes of contract farming that scholars have raised concern over (Little and Watts, 1994; Oya, 2012). If the excluded local population had knowledge, resources, and access, they may have been able to join contract farming and thus also reap the benefits enjoyed by their contract farming neighbors. This makes an important point about differentiation. While contract farming can exacerbate socio-economic differentiation, the differentiation present in the local communities prior to contracting is of extreme importance for determining whether or not an individual farmer can even enter into contract farming.

### *Reflections on the potential and limitations of the term symmetrical reciprocity*

This dissertation has developed a theoretical framework for analyzing relationships in contract farming. It is helpful to reflect upon this framework to understand applicability, ease of use, and how it can be taken further to become more appropriate for future studies.

In using *symmetrical reciprocity*, it can be discussed what is implied within this term. Using symmetrical reciprocity to describe the relationships in the cases is not intended to imply equality between the two parties or equal power. Rather, it is about the reciprocity that is symmetrical *enough* for the interested parties to continue to pursue the relationship.

Concerning inequality in contract farming, when reflecting upon the literature on contract farming, it is plausible that truly equal relationships between farmers and investors do not exist. Contract farming can invite and create issues of monopsony, and unequal terms for farmers and investors may be difficult to avoid. While the altruistic goal is to achieve equal relations in terms of power, the approach in this dissertation is intentionally pragmatic. The analytical framework is purposed to describe the contract farming relationships as they are and what drives them. In the absence of equal relationships, *symmetrical reciprocity* captures what it takes to drive the contract farming relationship to continue by meeting the minimum standard for each party to be invested in continuing participation in contract farming. Thus, when characterizing a relationship as one of symmetrical reciprocity, the intention is not to invalidate potential negative consequences that may be occurring in these contract farming cases. The concerns raised by contract farming literature, such as price dependency, monopsony, or side-selling highlight important problems to be aware of when implementing contract farming. However, characterizing the relationship as symmetrically reciprocal indicates that there is enough exchanged from both sides to maintain the relationship. Further developments of this framework could go deeper into the definition and limitations of using this term.

### 9.3 Implications of the Dissertation for Understanding Contract Farming

When looking back upon this study, the fieldwork, the analysis, and the literature consulted, I formed a few relevant reflections on what this study means for contract farming as an



intervention and an agri-business model. Contract farming is still promoted at times as an almost catch-all solution in that it satisfies many concerns of different stakeholders about how agricultural development can be addressed. Although it is not an exclusive solution to problems in agricultural development, it is one that satisfies the aims of many different stakeholders. Contract farming as a worthwhile intervention could be called a *win-win-win-win* situation in current debates and strategies for agricultural development. It can be seen as a *win* for the state because it creates structure that continues to free the state from responsibilities towards farmers in terms of providing access to markets, inputs, credits etc., by placing more responsibility on the private sector. It can be seen as a *win* for the private sector because it gains access to higher quality product, secures access to this product, and, indirectly, accesses land that might otherwise be difficult to access. It can be seen as a *win* for the farmers because they can gain access to more inputs and credits, increasing their welfare and income, and they can, in many cases, maintain their ownership over land, thus avoiding issues of land grabbing. Finally, it can be seen as a *win* by international organizations and NGOs in that farmers' organization is promoted through contract farming, and if the contract farming gives farmers a sense of ownership, it can be considered more *inclusive*, a popular development buzzword in recent debates on pro-rural and pro-poor growth. But is this *four-way-win* actually happening? Yes, it is happening to some extent. This study adds to other contract farming studies by showing that at least some contract farmers are gaining from being in the contract farming schemes. Contract farming as an initiative can have value for the individual farmer, as indicated by the cases in this study. However, the full story is more complicated. Particularly in the four cases studied here it is important that the relationships between the investors behind contract farming and the farmers as well as the entire affected population can be characterized positively by their exchanges and outcomes. The cases where the contract farmer-investor relationship is defined by symmetrical reciprocity show how these outcomes and exchanges drive the contract farming scheme. It is important to emphasize that many *farmers do benefit* from contract farming; it allows them to reinvest in other livelihoods and provide basic needs and housing for their families. Whether or not contract farming is always beneficial to every farmer is not unimportant, but it is important to reflect here that contract farming *can be a*

*pathway* allowing small farmers to benefit and increase their productivity, security and well-being.

#### *What about the excluded local population?*

While possibly benefiting through positive indirect transfers, the excluded local population can also be discussed, in the *four-way-win* terminology, as those who might *lose* out in contract farming. The extent of this loss and how much it may be contributing to differentiation is visualized in what characterizes the relationships among the excluded local population and the investors and contract farmers. In all of these cases, the excluded local populations do not have the same opportunities for change and benefits as the contract farmers. They are more marginalized, either by their lack of resources or access to knowledge and networks. However, in the case of KSCL, contract farming has transformed pockets of the local community, creating linkages between the three groups of actors engaged with the contract farming investment, the contract farmers, investors, and excluded local population. MKRS is engaged with productive activities that may also lead to pockets of transformation including agricultural field days and supporting extension services. If contract farming is to be more transformative of entire communities, it is imperative that more attention is given to how the investment affects the entire community. This study expands the attention given to this issue, through analyzing relationships and power. The investments and contract farming schemes which are perhaps the most well-positioned to be transformative of the entire local community are those which actively aim to provide attractive and beneficial contracts to farmers, high-quality product or crops to investors in an area of need, that avoid land conflict and also make it transparent and possible for all types of farmers to join contract farming regardless of access and resources will be the ones that are. These types of large-scale contract farming investments are possibly capable of influencing agricultural transformation of Tanzania.

#### *The role of land*

Land has been an important element in each of the cases and in understanding how to characterize the relationships between actors, as land is often a source of great tension and even open conflict. However, this is not the case for MKRS. I would like to suggest that, in part, this lack of conflict might be because MKRS does not own any land or produce rice on its own

land. The companies in the other three cases possess their own land where they grow rice and sugar for processing and markets, meaning that they prioritize getting their own product to the mill over the product of the contract farmers. This can literally be grounds for conflict, as seen in Kapunga and somewhat in KSCL, as the availability of fertile land seems to be shrinking. This brings up an important point about power around land in contract farming schemes, particularly in the case of MKRS. Contract farming schemes without land possessed by the investor invite efforts from the investor to invest in the local community to ensure higher product quality. While this is also the case in Kapunga and KSCL in that they do put effort into increasing the quality and yield from the contract farmers, here this focus is not divided by efforts to also increase the quality of MKRS' own land and rice. This lack of land also gives MKRS a broader interest in investing in the larger local community as it expands and seeks more and more contract farmers. Perhaps the lack of land in the investor's hands creates more balance between MKRS and the entire local population than in some of the other cases. I do not discount the positive impact that, in particular, KSCL has on the local community, but I do think that removing land as an important factor from the contract farming scheme as a whole opens up better opportunities for farmers and investors to meet and negotiate. The threat of monopsony is also not present in the MKRS case, meaning that farmers can go elsewhere. This could mean that contract farming schemes in which the investors do not have their own land for agricultural production are likely to have a more balanced relationship in terms of power.

What has become clear in this study is that the relationships between actors really do matter and that characterizing these relationships as having symmetrical reciprocity, (positive) indirect transfers, and asymmetrical reciprocity helps to uncover what drives and sustains contract farming schemes. Furthermore, in these relationships, the construction and presentation of power is also important. How does this study on contract farming speak to broader questions of agricultural transformation? Given the scope of this study, it is not possible to make a specific causal connection between contract farming and agricultural transformation. However, when considering that it is productivity changes which make up agricultural transformation (Hillbom and Svensson, 2013), contact farming offers many possibilities for small, incremental

movements towards agricultural transformation as the individual farmers experience positive gains due to contract farming and reinvest these in productivity-increasing activities. This study suggests that there is a strong indication that contract farming is potentially connected to agricultural transformation.

#### 9.4 Future Research in Contract Farming, Relations and Power

Future research building upon this dissertation could go in a number of different directions that would help to further our understanding of contract farming, relationships, and power. One direction which would allow for a more-in-depth case study would be to do a follow-up case study of the same case sites. In this way, and by collecting similar information, a comparison over time could be done and qualitative methodology could be employed to try and understand what might have caused these changes. This would help to solve the issues of considering how contract farming schemes function long-term, which may reveal new problems or solutions. It would also allow for a way to study holding power; how have the constructs of power shifted or changed since the initial fieldwork?

Another direction for future research would be to focus theoretically on continuing to develop the relational framework for contract farming by applying it to different cases. Furthermore, it would increase the potential for deeper analysis if the investment's relationship to local and national political elites is discussed. For the Mtibwa and Kapunga cases, it is clear that ruling elites matter to the investment, and further research could help to add this additional layer to the relational model, which could then be used in relevant studies and applied to different contract farming cases.

Power in contract farming would also be a relevant direction for further research. Further developing how concrete holding power can be used to analyze contract farming schemes would allow for a more detailed understanding of power's distribution within and outside the scheme. Expanding the framework to include ruling elites, whether local or national, would add further depth to the analytical capabilities of holding power applied to contract farming.

## 9.5 Further Reflections on the Dissertation on Rice, Sugar, and Agriculture

When comparing the sugar and rice sectors, the main difference appears to be how these crops influence the organization of large-scale agricultural investments. Sugar contract farming investments are organized through farmer organizations. The three main groups of actors in the scheme are the contract farmers, the farmer organizations and the investors. Because sugarcane must get to the mill in a timely manner after being cut, the transaction costs of doing so on an individual basis are high for the investor/mill operator; thus, the contract farmers instead organize themselves within farmer organizations and negotiate getting to the mill. This method of organization has also led to, at least in the KSCL and Mtibwa cases, the majority of inputs the contract farmer receives from the investment coming from the investor themselves. In contrast, rice contract farming investments are organized individually; therefore, the transactions happen directly between the investor and the individual farmers, and inputs are also usually exchanged between the farmer and the investor. Thus, in this dissertation, it is not the crop itself that causes differences across sectors but the organization type. Then, however, is it important whether farmers receive inputs from farmer organizations or from the investors themselves? One argument could be that it does not matter as long as the farmers receive inputs and are able to use them for increasing and bettering their farming and outputs. However, it may matter for power relations in particular. For example, in the case of the sugarcane contract farming schemes, the investor is removed from the responsibility of ensuring that farmers have access to inputs and receive valuable exchanges from their participation because they only negotiate on the organization level. This difference in organizational structure creates distance between the farmers and the investors; furthermore, power becomes more dispersed among additional actors. In contrast, in the rice farming cases, the investors themselves are more heavily engaged with the individual farmer and with the inputs and exchanges, creating a closer relationship. Organizational structure may also have something to do with land, sourcing, and available supply.

Contract farming has implications for agricultural transformation and agricultural development; however, to only include this issue would be to exclude broader global phenomena that may impact overall agricultural development. Thus, one questions are raised upon reflection of this dissertation: How does and will contract farming fit into debates about climate change and related impacts? Although answering this question in its entirety is beyond this dissertation's scope, we can begin to consider what systemic change might mean for contract farming. One of the clearest revelations based on the understanding of relationships resulting from contract farming is that the relationships matter in terms of the scheme's success and impact. The investments that cause the least amount of land pressure and that engage more of the excluded local population also seem to be generating contract farming investments that produce relationships of symmetrical reciprocity, positive indirect transfers, and ones that seem to speak to some power balance between the main actors. In terms of climate change impacts, sugar and rice will continue to be important sectors to develop in the coming decades—rice because of food security and sugar because of its potential as biofuel. Consequently, the specific crop does matter because contract farming schemes in other sectors may be affected differently by climate change; thus, the farmers may need to adapt or change. Although the crop and attached sector are important to consider, it is at the local level of the individual investment where the most crucial exchanges occur, thus determining contract farming's impact on the engaged farmers, investors, and entire local population.

Regarding contract farming and systemic change in both the agricultural sector and beyond due to worldwide issues such as climate change, migration, and globalization, it is important to remember that farmers who have benefited from contract farming often reinvest in additional livelihoods or in improving or expanding current ones. Those farmers make changes to decrease their risk, making it easier to stand up to crises, such as personal one's such as a prominent family member's death, or global ones such as natural disasters, and adaptations to climate change. Contract farming creates avenues for farmers to become better-off, potentially helping them adapt to broader systemic changes. Thus, the continued examination of contract farming, relationships, and power is important when analyzing how contract farmers will face global and

systemic changes. These changes will likely affect power structures both globally, nationally, and locally, so understanding how power and relationships work in contract farming on a local level is essential. Relational understandings of power, exchange, and differentiation in contract farming will help various actors and stakeholders to better equip themselves for changes that may come in agricultural development in Tanzania and beyond.





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## Summary

Agricultural development is an important focus for many Sub-Saharan African countries, including Tanzania. There has been a focus on promoting agricultural interventions that allow smallholder farmers opportunities to increase their productivity, reduce poverty, and become part of the commercial agricultural sector. Contract farming is one such intervention, and despite its popularity, it still remains a debated intervention in terms of its ability to contribute positively to smallholders and agricultural development. This study looks at four large-scale agricultural investments in contract farming in the sugar and rice sectors of Tanzania. The aim of the study is to explore and identify the exchanges and outcomes present in these cases and to explore power, relationship and differentiation. In doing so, this study shows how contract farming investments impact the entire local-level population in different ways, which gives key insights into what drives contract farming schemes.

This study draws on and situates itself in contract farming literature. It explores three phases of contract farming's popularity and identifies specific gaps in the literature around power and relations. The study builds an analytical framework in order to address these two gaps. The study proposes an analytical framework for looking at relationships within and outside the contract farming schemes. It looks at three key relationships: that between contract farmers and the investors; that between contract farmers and the excluded local population; and that between the excluded local population and the investors. The model characterizes these relationships by identifying the exchanges and outcomes that occur within the relationships. The second part of the analytical framework applies Khan's concept of holding power to understand how power is distributed both within and outside the contract farming scheme and to identify how power might change over time and in the face of conflict.

This study is based on empirical evidence from four cases: two cases of contract farming in the rice sector and two in the sugar sector in Tanzania. The study uses a mixed-methods approach and draws on household surveys, interviews, and focus group discussions. The four cases are Kilombero Sugar Company Limited, Mtibwa Sugar Estates, Kapunga Rice Plantation Limited, and Mtenda Kyela Rice Supply Company Limited.

The study shows that for all four cases, contract farmers receive exchanges through engaging in contract farming. These exchanges include access to inputs, credits, loans, and markets. For all of the cases, except the case of Mtibwa Sugar Estates, many contract farmers benefited from contract farming and were able to reinvest income from contract farming into different activities. The Mtibwa case is marked by conflict and tension with the investor, which has resulted in farmers starting to leave the scheme. The study also shows that the excluded local populations face a mixture of positive and negative impacts from the contract farmers and the investors.  *Holding power*  is explored for each of these cases and it is found that the cases of Mtibwa Sugar Estates and Kapunga Rice Plantation Limited contain conflict and tension that may result in the breaking down of the contract farming schemes.



## Samenvatting

Agrarische ontwikkeling is een belangrijke doelstelling voor veel landen in Sub-Sahara Afrika, waaronder Tanzania. Daarbij wordt veelal veel nadruk gelegd op interventies die kleine boeren de kans moeten bieden om hun productiviteit te verhogen, deel uit te gaan maken van de commerciële sector en hun armoede te verminderen. Een voorbeeld van een interventie die zou moeten kunnen bijdragen aan het welzijn van kleine boeren en agrarische ontwikkeling is de contractlandbouw. Ondanks de populariteit, zijn de resultaten omstreden.

Deze studie analyseert vier voorbeelden van contractlandbouw, gericht op grootschalige agrarische investeringen in de suiker- en rijstsectoren van Tanzania. Het doel van de studie is het identificeren en onderzoeken van uitwisselingsrelaties, machtsverhoudingen en differentiatie. Daarbij laat dit onderzoek zien hoe investeringen in de contractlandbouw de gehele lokale bevolking op verschillende manieren beïnvloeden, wat belangrijke inzichten verschaft in wat contractlandbouwregelingen beogen en in de praktijk als effect hebben.

In het eerste deel wordt het onderwerp van studie geplaatst in contractlandbouwliteratuur. Het onderzoekt drie fases van de populariteit van contractlandbouw en identificeert leemtes in de literatuur rondom machtsverhoudingen en relaties. De studie ontwerpt een analysekader om deze twee onderwerpen in beeld te brengen; en probeert inzicht te verschaffen in de verschillende typen relaties binnen en buiten de contractlandbouwregelingen: die tussen contractlandbouwers en investeerders; tussen contractlandbouwers en de uitgesloten lokale bevolking; en tussen uitgesloten lokale bevolking en investeerders. Het model typeert deze relaties door de uitwisselingsrelaties en de uitkomsten daarvan te identificeren.

In het tweede deel wordt op basis van Khan's concept 'holding power' geanalyseerd hoe macht verdeeld is binnen en buiten de contractlandbouwregelingen; en hoe machtsverhoudingen in de loop van de tijd kunnen veranderen of dat doen in geval van conflicten.

Deze studie is gebaseerd op vier empirische case studies: twee betreffen contractlandbouw in de rijstsector en twee contractlandbouw in de suikersector van Tanzania. De vier case studies zijn

Kilombero Sugar Company Limited, Mtibwa Sugar Estates, Kapunga Rice Plantation Limited, en Mtenda Kyela Rice Supply Company Limited.

In de studie wordt een mix van onderzoeksmethoden gebruikt, waaronder huishoudens-enquêtes, interviews, en focusgroep discussies.

De studie laat zien dat bij alle vier de gevallen de landbouwers profijt hebben van hun deelname aan de contractlandbouw. Ze krijgen onder andere toegang tot inputs, kredieten, leningen en markten. Met uitzondering van Mtibwa Sugar Estates, waren zij in staat om het inkomen gegenereerd uit de contractlandbouw te herinvesteren in andere activiteiten. Bij Mtibwa Sugar Estates doen zich conflicten en spanningen voor, wat er toe heeft geleid dat een deel van de boeren de contractlandbouw begon te verlaten.

De studie laat ook zien dat de aanwezigheid van contractlandbouwers en investeerders zowel positieve als negatieve effecten heeft voor de uitgesloten, niet participerende, lokale bevolking.

Voor ieder van de vier cases hebben we onderzoek gedaan naar machtsverhoudingen en veranderingen in 'holding power'. Bij de Mtibwa Sugar Estates en Kapunga Rice Plantation Limited bleek dat de daar bestaande conflicten en spanningen ertoe kunnen leiden dat contractlandbouwregelingen worden afgebroken.



## Appendix A: List of Interviews

<b>Place of interview</b>	<b>Date of Interview</b>
Ministry of Lands, Housing and Human Settlements Developments	June 6, 2014
Former Norwegian Embassy employee	June 18, 2014
SAGCOT president	June 20, 2014
AGRA	June 6, 2014
Haki Ardhi	June 23, 2014
Kijani Argo private agro-processing firm	June 19, 2014
ActionAid	June 3, 2014
RABADA	June 19, 2014
Tanzania Investment Center	June 4, 2014
Environmental Friends and Agro Practitioners	May 13, 2015
Mtibwa Investment Interview	June 6, 2015
Kilombero Sugar Company Limited Survey Interview	June 11, 2015
KSCL Head of Outgrower Contacts Interview	June 23, 2015
Rice Council of Tanzania	August 5, 2015
Kilombero SBT local area officer	August 7, 2015
Kilombero Community Charitable Trust	August 9, 2015
Focus Group MKRS contract farmers	August 13, 2015
Focus Group Mbarali non-participants rice	August 13, 2015
Focus Group Momba non-participants rice	August 15, 2015
Focus Group KSCL contract farmers	August 19, 2015
Focus Group KSCL non-participants	August 19, 2015

Focus Group Mtibwa contract farmers	September 7, 2015
Isenyela Irrigation Scheme	November 20, 2015
Kongolo Mswiswi scheme	November 20, 2015
Interview with head of Agricultural Production Kapunga	November 13, 2015

## Appendix B: Investment Survey

Investment Survey – Survey used in Phase II of fieldwork

<b>Name Surveyor(s):</b>	
<b>Survey code:</b>	<b>Date:</b>
<b>Name enterprise:</b>	
<b>Name respondent(s):</b>	
<b>Position respondent(s) within enterprise:</b>	

### SURVEY OF AGRICULTURAL INVESTMENTS

#### 1. Investment characteristics

A. Upstream Production	B. Target Market	C. Value Chain Activities
<b>What crops/tree species does the investment source/produce?</b> <b>Specify:</b>  1. 2. 3. 4. 5.	<b>In which branch of the agro-sector is the investment active (multiple options possible)?</b> <input type="checkbox"/> Livestock <input type="checkbox"/> Food <input type="checkbox"/> Bioenergy <input type="checkbox"/> Forestry <input type="checkbox"/> Textile <input type="checkbox"/> Latex <input type="checkbox"/> Beverage <input type="checkbox"/> Other:.....	<b>In what value chain activities is the investment involved (multiple options possible)?</b> <input type="checkbox"/> Marketing of inputs* ..... <input type="checkbox"/> Training/extension services* <input type="checkbox"/> Direct cultivation <input type="checkbox"/> Sourcing of crops through contractors <input type="checkbox"/> Sourcing of crops through open market/arm's length <input type="checkbox"/> Research and Development <input type="checkbox"/> Storage <input type="checkbox"/> Processing <input type="checkbox"/> Transportation <input type="checkbox"/> Trading and Exporting <input type="checkbox"/> Retail <input type="checkbox"/> Other:..... (* excluding those provided to contractors)
D. Status	E. Capital investment	
<b>What is the legal status of the investment?</b> <input type="checkbox"/> Sole proprietorship <input type="checkbox"/> Joint venture, partnership <input type="checkbox"/> Wholly-owned subsidiary <input type="checkbox"/> Publically listed corporation <input type="checkbox"/> Cooperative <input type="checkbox"/> Registered non-profit organization <input type="checkbox"/> Other:.....	<b>How much capital has already been committed towards the investment and how much is planned?</b> Please specify amount and currency already invested:   Please specify planned amount, currency, and target year:	

#### 2. Financial situation

A. Sources of finance	B. Financial performance
<p><b>What are your different types of sources of finance (detail each source if willing to disclose)?</b></p> <p><input type="checkbox"/> Subsidy .....</p> <p><input type="checkbox"/> Grant.....</p> <p><input type="checkbox"/> Project finance from IFI.....</p> <p><input type="checkbox"/> Project finance from private bank.....</p> <p><input type="checkbox"/> Investment fund.....</p> <p><input type="checkbox"/> Raised through share issuance.....</p> <p><input type="checkbox"/> Internal/parent company.....</p> <p><input type="checkbox"/> Private capital.....</p> <p><input type="checkbox"/> Other.....</p>	<p><b>What is the current status of your investment?</b></p> <p><input type="checkbox"/> Active (fully operational)</p> <p><input type="checkbox"/> Halted</p> <p><input type="checkbox"/> Starting up</p> <p><input type="checkbox"/> Closing down</p> <p><b>What was the annual turnover of the investment in the last year?</b></p> <p>Specify amount and currency:</p>
<p><b>Which type of financial source listed above is most significant in value?</b></p> <p>Please specify source:</p> <p>Please specify proportion total funding:</p>	<p><b>Did the investment make a profit in the last year?</b></p> <p>If so, specify amount and currency:</p> <p><b>If no profit, when is the investment expected to become profitable?</b></p> <p>Specify year:</p> <p><b>What is the target return on investment (ROI) (if any)?</b></p> <p>Specify ROI (%):</p>

**3. Direct cultivation (if relevant – from 1C)**

A. Land access	B. Crop production activities
----------------	-------------------------------

**How many hectares of land does the investment have access to and how many plots?**

Total ha..... #plots:.....

**What was the tenure status of the land prior to investment?**

- Freehold ha:.....
- State-owned ha:.....
- Leasehold ha:.....
- Community/customary ha:.....

**What was the previous land use? Please estimate area under each relevant land use (use % if difficult)?**

- Forest ha:.....
- Cultivated (smallholders) ha:.....
- Cultivated (commercial) ha:.....
- Fallowed land ha:.....
- Marginal/degraded ha:.....
- Wetland ha:.....
- Shrub/grassland ha:.....
- Other:..... ha:.....

**What type of title do you have over the land?**

- Freehold ha:
- Leasehold ha: years:
- None ha:  
Specify..... (e.g. management contract, good faith agreement, in progress)

**On what terms did you gain access to your land (separate by plot, if different)?**

Monetary. Specify (e.g. US\$/yr, X% of profit).....  
.....  
.....

Other terms. Specify (e.g. hospital, school, inputs, preferential hiring).....  
.....  
.....

**What area of land is currently under production with the different crops ('Crops' from 1A)?**

	Year of first planting	Area (in ha)	Cropping method	Yield (MT/ha)
1				
2				
3				
4				
5				

**What crop production practices do you adopt?**

	Seed type	Fertilizer type	Kg/ha	Pesticide type	kg/ha
1					
2					
3					
4					
5					

**What irrigation practices do you adopt (if any)?**

	Irrigation (Y/N)	Water source(s)	Months per year
1			
2			
3			
4			
5			

**What production processes are mechanized (if any)? Specify nature of mechanization (Mark as partial (P) or full (F)):**

	Land preparation	Planting	Management	Harvesting
1				
2				
3				
4				
5				

**4. Crop sourcing activities (if relevant – from 1C)**

**A. Nature of sourcing relationship**



Through what type of channels do you source each of your crops ('Crops' from 1A)? Please specify typical number of sources and amount for each category.

	Individual outgrower			Tenant farmer			Contracted cooperative			Arm's length		
	No.	MT	ha	No.	MT	ha	No.	MT	ha	No.	MT	Ha
1												
2												
3												
4												
5												

If contracting, please specify the type and terms of support provided to each contract category (Mark with Free(F), Cost recovery (R), or Commercial (C))

	Individual outgrower					Tenant farmer					Contracted cooperative				
	S*	F	P	C	T	S	F	P	C	T	S	F	P	C	T
1															
2															
3															
4															
5															

\*S=Seed(lings); F=Fertilizers; P=Pesticides; C=Credit; T=Technical support

**B. Contract terms**

If contracting, how long is the contract valid for (in years)?

	Individual outgrower	Tenant farmer	Contracted cooperative
1			
2			
3			
4			
5			

Which factors influence crop purchase price? Please specify (multiple options possible):

- Domestic market prices
- Global market prices
- Logistics/distribution costs
- Product quality/grade
- Distance to individual contractor
- Other:.....

Which stakeholders are involved in determining crop purchase price? Please provide name(s) of relevant actor(s)

- Government.....
- Farmer union. ....
- Investment-specific farmer representatives.....
- Consultative forum.....
- Customers.....
- Other.....
- None/only investor

If a standard pricing formula is applied, please provide specifics (for each crop/contract category if relevant and different):

- .....
- .....
- .....
- .....
- .....

**C. Selection/inclusion criteria**

**D. Production requirements**

<p><b>How are farmers/cooperatives selected for inclusion in your contracting scheme? Please specify thresholds:</b></p> <p>0 Technical capacity .....</p> <p>0 Distance to processing/collection facility.....</p> <p>0 Minimum size of farm.....</p> <p>0 Maximum size of farm.....</p> <p>0 Land quality.....</p> <p>0 Land tenure security.....</p> <p>0 Household labour profile.....</p> <p>0 Other.....</p>	<p><b>Do you require your contractors to adopt certain practices in their production? Please specify:</b></p> <p>0 Maintain certain area with subsistence crops.....</p> <p>0 Conform to labour standards.....</p> <p>0 Adopt certain agronomic practices.....</p> <p>0 Ban from converting certain lands.....</p> <p>0 Contribute to (group) savings.....</p> <p>0 Other.....</p>
--	--

**5. Processing (if relevant – from 1C)**

A. Processing activities	B. End-product																								
<p><b>What processing activities are you involved in?</b></p> <p>0 Sawing</p> <p>0 Ginning</p> <p>0 Drying</p> <p>0 Dehusking</p> <p>0 Oil extraction</p> <p>0 Milling</p> <p>0 Energy (co-)generation</p> <p>0 Canning</p> <p>0 Packaging</p> <p>0 Other.....</p>	<p><b>What final products do you produce? Specify:</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;"></th> <th style="width: 60%;">Product</th> <th style="width: 20%;">Annual output (MT/yr)</th> <th style="width: 15%;">Installed capacity (MT/yr)</th> </tr> </thead> <tbody> <tr><td>1</td><td></td><td></td><td></td></tr> <tr><td>2</td><td></td><td></td><td></td></tr> <tr><td>3</td><td></td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td><td></td></tr> <tr><td>5</td><td></td><td></td><td></td></tr> </tbody> </table>		Product	Annual output (MT/yr)	Installed capacity (MT/yr)	1				2				3				4				5			
	Product	Annual output (MT/yr)	Installed capacity (MT/yr)																						
1																									
2																									
3																									
4																									
5																									

**6. Labour**

A. Characteristics labour force	B. Employment conditions
---------------------------------	--------------------------

<p><b>How many employees belong to the following contract categories?</b>          Permanent (non-management):          Permanent (management):          Fixed-term:          Casual (range, from # in low season to high season):</p> <p><b>What proportion of your staff is local? (use count if difficult)</b>          Local:          Other domestic:          Foreign:</p> <p><b>What proportion of your staff is male and female? (use count if difficult)</b>          Male:          Female:</p> <p><b>What is the typical monthly wage range for the following contract categories?</b>          Permanent (non-management):          Permanent (management):          Fixed-term:          Casual:</p>	<p><b>What secondary benefits are the following contract categories eligible for (indicate with X when relevant)?</b></p> <table border="1"> <thead> <tr> <th>Benefits</th> <th>Permanent (non-manage)</th> <th>Permanent (manage)</th> <th>Fixed</th> <th>Casual</th> </tr> </thead> <tbody> <tr><td>Food</td><td></td><td></td><td></td><td></td></tr> <tr><td>Food allowance</td><td></td><td></td><td></td><td></td></tr> <tr><td>Transportation</td><td></td><td></td><td></td><td></td></tr> <tr><td>Transport allowance</td><td></td><td></td><td></td><td></td></tr> <tr><td>Housing</td><td></td><td></td><td></td><td></td></tr> <tr><td>Housing allowance</td><td></td><td></td><td></td><td></td></tr> <tr><td>Medical care</td><td></td><td></td><td></td><td></td></tr> <tr><td>Medical allowance</td><td></td><td></td><td></td><td></td></tr> <tr><td>Health insurance</td><td></td><td></td><td></td><td></td></tr> <tr><td>Schooling</td><td></td><td></td><td></td><td></td></tr> <tr><td>Schooling allowance</td><td></td><td></td><td></td><td></td></tr> <tr><td>Pension</td><td></td><td></td><td></td><td></td></tr> <tr><td>Sick leave</td><td></td><td></td><td></td><td></td></tr> <tr><td>Annual leave</td><td></td><td></td><td></td><td></td></tr> <tr><td>Other:.....</td><td></td><td></td><td></td><td></td></tr> <tr><td>.....</td><td></td><td></td><td></td><td></td></tr> </tbody> </table>	Benefits	Permanent (non-manage)	Permanent (manage)	Fixed	Casual	Food					Food allowance					Transportation					Transport allowance					Housing					Housing allowance					Medical care					Medical allowance					Health insurance					Schooling					Schooling allowance					Pension					Sick leave					Annual leave					Other:.....					.....				
Benefits	Permanent (non-manage)	Permanent (manage)	Fixed	Casual																																																																																		
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Other:.....																																																																																						
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**7. Marketing**

A. Target market						
<b>Do you know where your customers or your retail outlets (if any) market your products, and if so, please specify target markets)?</b>						
	Name customer/ retail outlet	Know target market (Y/N)	Proportion domestic (%)	Proportion regional (%)	Rest of the world (%)	Major target markets (name)
1						
2						
3						
4						
5						

**8. Shareholdings**

A. Ownership
--------------

**Who are the main shareholders of the investment (people/legal entities)?\***

	Name	Equity share (%)	Country of origin	Sectoral focus/ expertise	Year originally established (if company)
1					
2					
3					

- If a farmer cooperative, specify 'farmers' under 'name', with the number in brackets.

**If shareholder is non-domestic, what experience (if any) do the above shareholders have in this country?**

	Year of first operation	Sectoral focus	Geographic focus
1			
2			
3			

## 9. Sustainability

A. Adoption of initiatives	B. Practices
----------------------------	--------------

**Has the investment adopted/is in the process of adopting/planning to adopt any of the following product quality standards or sustainability initiatives (please mark with X and specify on dotted line)?**

Benefits	Adopted	In the process	Planned
GLOBALGAP			
International Food Standard (IFS)			
National standards (e.g. BRC)			
ISO 22000			
Customer-specific standards.....			
Occupational health & safety plan			
Impact mitigation strategy			
CSR policy			
UN Global Compact			
OECD Guidelines on Multinational Enterprises			
Global Reporting Initiative			
ISO 14001			
Ethical Trading Initiative (ETI)			
Fair Labor Association (FLA)			
Forest Stewardship Council (FSC)			
Rainforest Alliance			
Fairtrade Labelling Organization (FLO)			
Industry Moratorium.....			
Roundtable initiative.....			
National sustainability initiatives.....			
Other.....			

**If production is presently certified, please provide information on the magnitude by crop (from 1A)?**

	Direct cultivation		Sourcing	
	Area (in ha)	% output	Area (in ha)	% output
1				
2				
3				
4				

**Which of the following practices have you to date systematically adopted (Mark with X unless otherwise indicated)?**

Type of activity	Not relevant	None	Adopt
<b>Infrastructure development (Include recipient in 'Adopt': Mark with Community (C), Investment/employees (I), and Both (B).</b>			
Hospital(s)			
School(s)			
Road(s)			
Boreholes(s)			
Electricity			
<b>Host community development (include recipient in 'Adopt': Mark with Individual Household (H), Community/collective (C))</b>			
Consultation for land loss			
Sought consent for land loss			
Compensation for loss of farmland			
Compensation for loss of access to CPR			
Periodic payment of royalties			
Community development fund			
Community liaison officer			
Preferential hiring			
Alternative livelihood activities			
Access to inputs at concessionary rates			
<b>Environmental management</b>			
Environmental monitoring system			
Steep terrain and fragile soils avoided			
HCV areas are preserved			
Riparian buffer zones maintained			
Significant trees preserved			
Soil erosion prevention techniques			
Integrated pest management techniques			
Documented identification of waste/sources of pollution and procedures for action			
Wastes are recycled			
Records of pesticide use and their ingredients			

5				
---	--	--	--	--

## 10. Drivers

A. Decision-making					
Which factors have influenced your adherence to a sustainability initiative and adoption of associated practices? (Mark with X or as 'Not Relevant (NR)					
Factors	Very negative effect (--)	Negative effect (-)	No effect (0) or not relevant	Positive effect (+)	Very positive effect (++)
Customer demand					
Supplier demand					
Target market regulations					
Host country regulations					
Country of origin regulations					
Local civil society organization					
International civil society org.					
Host community demand					
Local elites (e.g. chiefs, politicians)					
Investment license conditionalities					
Environmental license conditionalities					
Land (lease) conditionalities					
Board of directors					
Shareholders					
Investment's managers					
External financiers					
Other.....					

In your perception, how does this country compare to other countries in the region on the following indicators? (Mark with X)? Please also rank the top 5 factors influencing your ultimate country selection decision, in order of significance.						
Factors	Rank top 5	Very negative (--)	Negative (-)	Similar (0)	Positive (+)	Very positive (++)
Domestic market opportunities						
Price of inputs						
Investment incentives/support						
Investment protection agreem.						
Macro-economic stability						
Political stability						
Geographic location						
Physical infrastructure						
Availability of suitable land						
Business contacts						
Legal and institutional framework						
Availability of skilled labor						
Relations between origin and host country						
Linguistic similarities						
Other.....						

**Did you consider other countries for this investment? If so, which, and why were they not selected?**  
Country name(s):



Reason:

**In your perception, how does the specific location you are currently investing in compare to others in the country on the following indicators? (Mark with X)? Please also rank the top 5 factors influencing your ultimate site selection decision, in order of significance.**

Factors	Rank top 5	Very negative (--)	Negative (-)	Similar (0)	Positive (+)	Very positive (++)
Distance to urban centers						
Distance to transportation hubs						
Distance to customers						
Quality of physical infrastructure						
Availability of skilled labour						
Availability of menial labor						
Accessibility of inputs						
Receptive host communities						
Amenable relations with local elites						
Receptive local administration						
Soil type/quality						
Availability of water sources						
Rainfall intensity/variability						
Proximity to other investors						
Proximity to affiliated						
Does not conflict with forests						
Does not conflict with smallholders						
Established on-farm infrastructure						
Tenure situation is clear						
Cultural/linguistic affinity						
Ability to recover establishment						
Absence of conflicts						
Opportunities within local markets						
Other.....						

**Who (if any) helped you in your establishment (e.g. in contracting suppliers, identifying willing sellers/leasers of land)?**

Type of actor(s):

Role:

**Did you consider other sites for this investment? If so, which, and why were they not selected?**

Specific location name(s):

Reason:

**B. Sources of information**

<b>In evaluating geographic suitability, which stakeholders provided useful information to you?</b> <input type="checkbox"/> Ministry of Environment <input type="checkbox"/> Ministry of Agriculture <input type="checkbox"/> Ministry of Lands <input type="checkbox"/> Investment Promotions Agency <input type="checkbox"/> Hired consultants <input type="checkbox"/> Business relations/contacts <input type="checkbox"/> In-house expertise <input type="checkbox"/> Legal counsel <input type="checkbox"/> Host communities <input type="checkbox"/> Local elite <input type="checkbox"/> Other.....	<b>What type of information did selected stakeholders provide to help you in your decision making (List stakeholders in the columns and mark with X)?</b>		
	Type of info	.....	.....
	Economic feasibility study		
	Technical feasibility study		
	Environmental and social impact assessment		
	Remote sensing/satellite imagery		
	Agro-ecological zoning maps		
	Land use plans		
	Government land bank		
	Verbal/qualitative		
	Other.....		

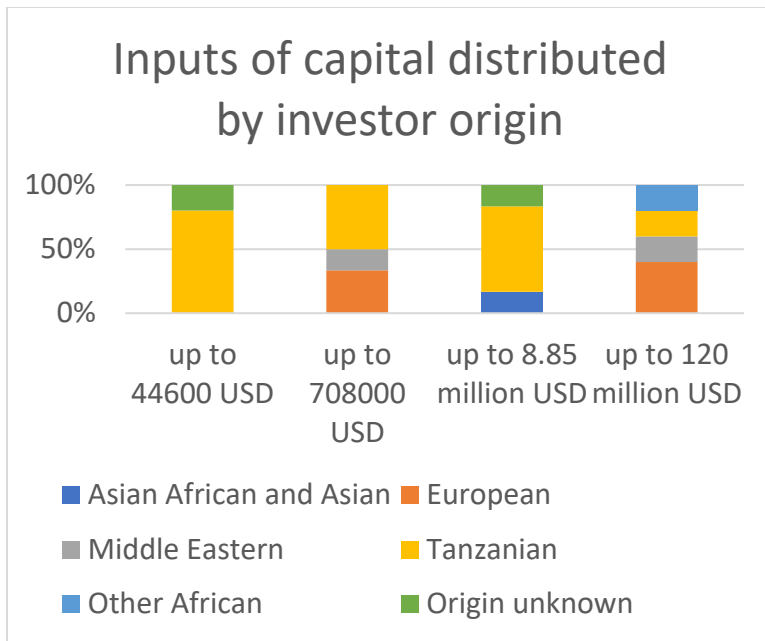
### Results from the Investment Survey:

A few descriptive graphs showing results from the investment survey and a brief overview of some of the key characteristics are included below (organized by year of establishment): I have included the year of establishment, region of the investment, industry, products and the number of employees. However, considering that some of these investments included contract farmers, the number of employees is not necessarily representative of how large the actual operations were.

#### Investment Survey Overview

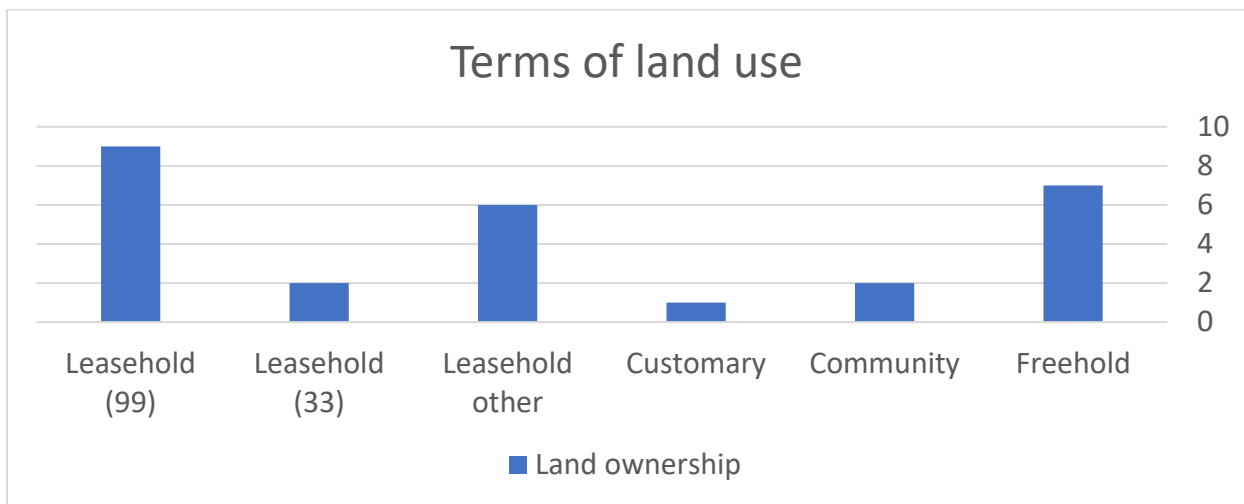
Survey #	Year	Business model	Region	Industry	Final products	Employment*
1	1998	Plant/Out	Morogoro	Food	Sugar, molasses	840
2	2012	Plant	Iringa	Food	Tomatoes	6
3	2000	Cont	Iringa	Agro-industries	Milk, yogurt	100
4	1972	Cont	Iringa	Agro-industries	Canned tomato sauce	35
5	2002	Cont	Iringa	Agro-industries	Sunflower oil	12
6	NR	Cont	Iringa	Agro-industries	Dried tomatoes	14
7	1994	Plant/Out	Iringa	Agro-industries, forestry	Chicken feed	16
8	2013	NGO	Iringa and Mbeya	Forestry	NR	NR
9	1959	Plant	Iringa	Food	Milk	30
10	NR	Plant	Iringa	Livestock, agriculture	Beef	125
11	1970	Plant	Iringa	Food	Maize flour	12

12	2014	Agro ind	Iringa	Agro-industries	Pesticides, vet services		8
13	1980	Plant	Iringa	Forestry, agriculture	Trees		10
14	2008	Cont	Dar	Food	Tea, coffee		310
15	1963	Plant/Out	Morogoro	Food	Sugar		700
16	1995	Plant/Out	Mbeya	Food	Rice, oils, beans		32
17	2014	NGO	Mbeya	Food	NR		6
					Sunflower oil/sunflower		
18	2009	Cont	Mbeya	Agro-industries	cakes		2
19	2014	Plant/Out	Coast Region	Food, bio energy	Sugarcane/ethanol		630
20	2006	Cont	Morogoro	Agro-industries	Chicken feed/soya oil		10
21	NR	Cont	Dar	Food	Wheat flour		60
22	NR	Plant	Dar	Food	Tomato paste	NR	
23	NR	Cont	Dar es Salaam	Food	Peanut butter/oil		43
24	2006	Plant	Morogoro	Agro-industries	Seeds		8
25	NR	Plant	Morogoro	Textile	Sisal fiber		122
26	2012	Plant	Iringa	Food	Milk		44
27	2003	Coop	Morogoro	Food	Rice		280
28	2006	Coop	Morogoro	Food	Rice		6
29	NR	NGO	Morogoro	Food	Rice	NA	
30	2001	Coop	Mbeya	Food	Rice		67
31	2004	Plant/Out	Mbeya	Food	Rice, maize flour		14
32	2005	Plant/Out	Mbeya/Sumbawanga	Food	Seeds	NR	
33	2006	Plant/Out	Mebya	Food	Rice	NR	
34	2006	Cont	Mbeya	Food	Rice		13
35	1953	Plant	Iringa	Tobacco	Tobacco		40
36	2006	Plant	Iringa	Forestry	Poles		61
37	2005	Cont	Mbeya	Agro-industries	Seeds		23
38	2000	Plant/Out	Mbeya	Food	Black tea		562

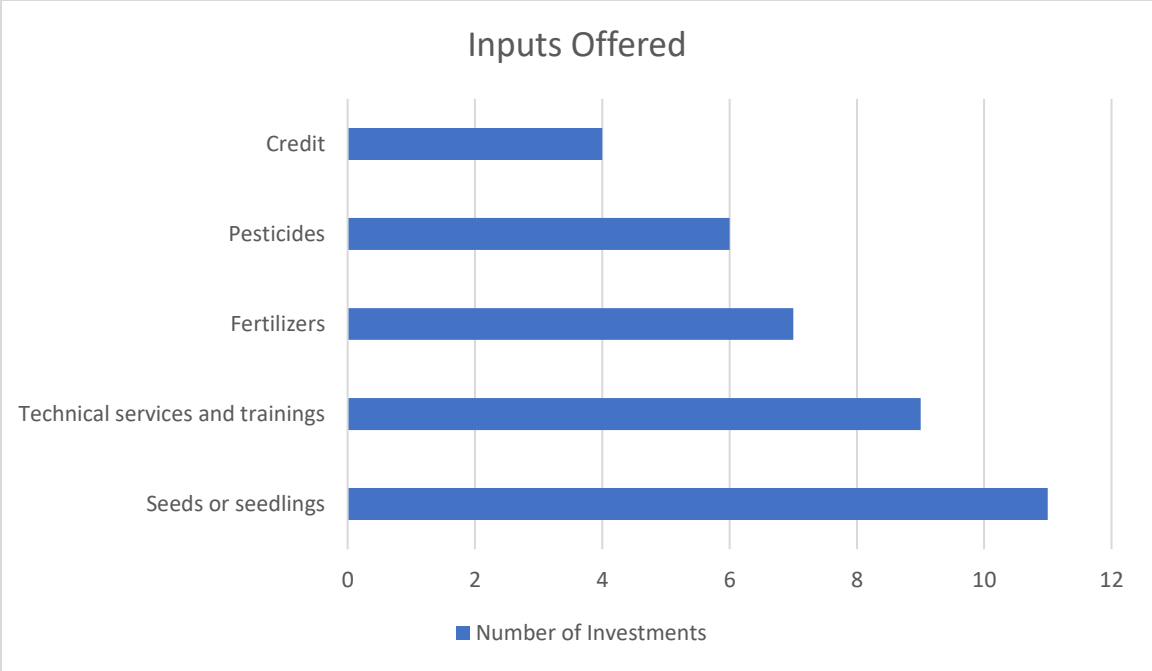


*Inputs of capital distributed by investor origin.*

**Land characteristics:**



*Terms of land use in number of investments (vertical axis) per tenure type. 79% of the investments own or use land in their production or processing facilities.*



Inputs provided by contract farming investments and plantation-outgrowers.

**Community Development:**

Types of community development	Number of investments
School	14
Hospital	11
Boreholes	8
Electricity	2
Pharmacy	2
Roads	3
School laboratories	2
Water access (besides boreholes)	1
Police post	1
Other	2

Prevalence of types of community development and infrastructure. Of the investments, 47% had some type of community infrastructure development

## Appendix C: Household Surveys

### *Overview of villages and wards surveyed in each case.*

Case	Villages in survey	Wards within these villages
KSCL	Ruhembe	Kikoni, Mlabani, Korodeko, Kijini, Ruhembe Juu, Madukani, CCM, and Kigea
	Kitete	Kanisani, Viwanja, Ubenami, Maendeleo, Ungonini Azimio, CCM, Msindazi, Liwalika, Lawandani, and Shuleni
Mtibwa	Kisala	Kati, Dibuti and Kisala-Kait
	Kichanga	Misufini, Mapalamba A, and Ngomeni B
Kapunga	Kapunga	Tambarale, Mapogono, Matoleo, and Ofisini
MKRS	Isenyela	Utage, Mwanjelwa, Mnyulunyulu A and B, Manyolo A and B
	Msiswi	Danida, Tazaara, Kanisani B and A, Usafwako

List of KSCL outgrower association participants in survey

<b>Position of respondent</b>	<b>Name of KSCL outgrower association</b>
Chairman	Maendeleo CGA
Chairman	Hope Cane Growers Association
Secretary	MCGA
Vice chairman	KCGA
Chairman	MMLCGA
Chairman	Harambee CGAS
No position given	Kidodi CGA
No position given	Kidatu Ikela Cane Growers Association
Secretary	Muongango CGA
Chairman	MNCGA
Organizational secretary	AMCO
No position given	Mkula Cane Growers Association MKUCGA
No position given	Sanje Cane Growers Association
No position given	Mucgar
No position given	Msowero CFA
No position given	Bonye CGA
No position given	RCGA

**Survey for Sugarcane Outgrower Associations at KSCL**

**Name of respondent:**

**Role in association:**

**J.1 - Activities**

<p><b>1. What is the name of the sugarcane association</b> Name:.....</p> <p><b>2. In what year was the association established?</b> Year:.....</p> <p><b>3. How many members did your association have when it was established?</b> .....</p> <p><b>4. How many members does your association have now?</b> .....</p> <p><b>5. If you have any increase or decrease in the number of</b></p> <p><b>4. Does your association have farming groups by villages?</b></p> <p><input type="checkbox"/> Yes, number.... <input type="checkbox"/> No</p> <p><b>5. Does your association have any block farms?</b></p> <p><input type="checkbox"/> Yes, please specify number of hectares, location, and number of outgrowers in the blockfarm..... <input type="checkbox"/> No</p> <p><b>6. If yes under 5, how is the farm managed?</b></p> <p><input type="checkbox"/> Each outgrower maintains and harvests specific individual portion of farm individually <input type="checkbox"/> Each outgrower maintains specific individual portion of farm but harvesting is done as a group <input type="checkbox"/> Maintenance and harvesting is done as a group <input type="checkbox"/> Other, please specify....</p> <p><b>7. If no under 5, why is there not a block farm? (Check all that apply)</b></p> <p><input type="checkbox"/> members are opposed to idea <input type="checkbox"/> Not enough resources to do it <input type="checkbox"/> No suitable area large enough <input type="checkbox"/> Other, please specify.....</p> <p><b>8. In what villages are members of your association located?</b> Village names.....'</p> <p><b>9. How much does the association charge in membership fees?</b> Amount..... unit.....</p>	<p><b>10. Does the association have any loans?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><b>11. If yes to 9, how much is the loan and who is the lender</b> Amount..... Lender.....</p> <p><b>12. If no to 9, why does the association not have any loans</b> <input type="checkbox"/> Lack of approval from bank <input type="checkbox"/> No need financially <input type="checkbox"/> Other, please specify.....</p> <p><b>13. Where does the association purchase fertilizer?</b></p> <p><input type="checkbox"/> Local suppliers (within district) <input type="checkbox"/> Company <input type="checkbox"/> Distant suppliers (outside of district) <input type="checkbox"/> Other associations <input type="checkbox"/> Other, please specify.....</p> <p><b>14. How much fertilizer does the association purchase?</b> Amount per year.....</p> <p><b>15. Where does the association purchase seeds?</b></p> <p><input type="checkbox"/> Local suppliers (within district) <input type="checkbox"/> Company <input type="checkbox"/> Distant suppliers (outside of district) <input type="checkbox"/> Other associations <input type="checkbox"/> Other, please specify.</p> <p><b>16. What activities is the association responsible for? (check all that apply)</b> <input type="checkbox"/> Purchase and distribution of fertilizers <input type="checkbox"/> Purchase and distribution of seeds <input type="checkbox"/> Contractor cane cutters to harvest and truck load. <input type="checkbox"/> Maintaining the land <input type="checkbox"/> Planting of seeds <input type="checkbox"/> Purchase and loan of farming equipment to members <input type="checkbox"/> Accessing loans from banks <input type="checkbox"/> Community development</p> <p><b>17. Does the association have any farming equipment?</b></p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p><b>18. If yes to 15, please specify:</b></p> <p><input type="checkbox"/> Tractor(s) <input type="checkbox"/> Trucks for harvesting <input type="checkbox"/> Plows <input type="checkbox"/> Other, please specify.....</p> <p><b>19. How is it decided in which order farmers' cane goes to the mill? (check all that apply)</b></p> <p><input type="checkbox"/> Amount of land <input type="checkbox"/> Length of time as member of association <input type="checkbox"/> Age of sugarcane (older goes first) <input type="checkbox"/> Other, please specify.....</p> <p><b>20. How often in the last year have you had sugarcane that did not make it to the mill? Circle appropriate response</b> 1- 10 days 11 – 30 days 31 – 90 days 90 + days</p> <p><b>21. Why does sugarcane not make it to the mill?</b></p> <p><input type="checkbox"/> Cannot afford transport <input type="checkbox"/> Cutting not done on time <input type="checkbox"/> Not enough capacity at the mill <input type="checkbox"/> Poor quality of cane <input type="checkbox"/> Other, please specify.....</p> <p><b>22. Has the association ever used their funds in the following areas?</b></p> <p><input type="checkbox"/> Improvement of roads <input type="checkbox"/> Improvement of schools <input type="checkbox"/> Establishment of boreholes in community <input type="checkbox"/> Improvement of hospitals or dispensaries <input type="checkbox"/> Improvement of village communal structures <input type="checkbox"/> Other, please specify.....</p> <p><b>23. Does the association hold the title deeds to the land used by association?</b></p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
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Each case was given the same basic survey as here, with minor tweaks for each individual case, followed by separate supplements for contract farmers and the excluded local population

### Household Survey – LIFFE Options – Tanzania

#### A – Interview Information

Interviewer's name	
Name of respondent	
District name	
Village name	
Type of stakeholder (1. Participant 2. Non-participant)	
Household number	

Name of HH member (start with respondent)	Gender (Code A)	Marital status (Code B)	Relati on to HH (Code C)	Age (Code D)	Can read and write? (Code E)	Highest completed grade (Code F)	Currently attending school (Code E)	Reason for not being in school for under 18* (Code G)	Too sick to work/school in the past 4 weeks (Code E)	If yes, consult health provider? (Code H)
1.										
2.										
3.										
4.										
5.										
6.										
7.										
8.										
9.										
10.										
11.										
12.										
13.										
14.										

#### B – Household Member characteristics

- Codes A**  
1. Male  
0. Female
- Codes B**  
1. Married living with wife/husband  
2. Married but wife/husband away  
3. Divorced/separated  
4. Widow/widower  
5. Never married  
6. Other, specify.....
- Codes C**  
1. Household head  
2. Spouse  
3. Son/daughter  
4. Parent  
5. Son/daughter in-law  
6. Grand child  
7. Other relative  
8. Hired worker  
9. Other, specify.....
- Code D**  
1. Under 5 years old  
2. Between 5-18 years  
3. 18-65 years  
4. Older than 65
- Codes E**  
1. Yes  
0. No
- Codes F**  
1. Primary School  
2. O' Level School  
5. A' Level school  
6. Technical  
7. University  
8. None  
9. Other, specify.....
- Codes G**  
1. Too far  
2. Too expensive  
3. Working at home  
4. Working at job  
5. Uninterested  
6. Illness/pregnancy  
7. Got married  
8. Failed exams  
9. Other, specify.....
- Codes H**  
1. Yes – public hospital  
2. Yes – private hospital  
3. Yes – community health center  
4. Yes – traditional healer  
5. Yes – other, specify.....  
6. No – too far  
7. No – too expensive  
8. No – not necessary  
9. No – Other, specify.....

**C – Productive employment (only ask for children 5 years and over; excludes household duties)**

HH member	Normally contributes to HH income or food (Code A)	Did any type of work in the last 7 days (Code A)	If no, why not working (Code B)	Number of jobs (Fill number)	Main type employer (Code C)	Sectoral focus of main job (Code D)	Type of payment at main job (Code E)	Ready to take on additional work in the next 4 weeks? (Code A)
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								
14.								

**Codes A**

- 1. Yes
- 0. No

**Codes B**

- 1. Seasonal inactivity
- 2. Student
- 3. Household/family duties
- 4. Too old/too young
- 5. Permanent disability

**Codes C**

- 1. Government
- 2. Parastatal
- 3. KSC
- 4. Association  
(sugarcane)

**Codes D**

- 1. Agriculture (sugarcane)
- 2. Agriculture (other crops)
- 3. Forestry
- 4. Mining/quarrying
- 5. Manufacturing/processing

**Codes E**

- 1. Fixed wages/salary
- 2. Casual (hourly/daily/task)
- 3. In-kind contribution
- 4. Unpaid
- 5. Self-employed

6. No available work  
7. Sick  
8. Other, specify.....

5. Other company  
6. Household/self  
7. Private person  
8. Other, specify.....

6. Transport  
7. Trade/selling  
8. Services  
9. Education/health  
10. Administration  
11. Other, specify.....

6. Other, specify.....

**D – Importance of livelihood activities to household (see separate sheet for codes)**

Activity category	Most important activity (name activity/income source)	Second most important activity (name activity/income source)	Third most important activity (name activity/income source)
Forestry			
Livestock			
Agriculture			
Fishing			
Artisanal mining			
Employment			
Small business			
Remittances			
Pension			
Subsidy			
Other, specify.....			

**E – Land assets and activities**

**E.1 - Land Assets**

Plot ID	Size (number, specify unit)	Tenure (Code A)	Original mode of acquisition (Code B)	Terms of using land (Code C)	Current Land Use (Codes D)	Year of acquisition	Land use before acquisition (Code D)	Location of land (Code E)	Conflict over this plot in the last 5 years (Code F)	If yes, with whom was the conflict? (Code G)
1										
2										
3										
4										
5										
6										
7										

- |  |                                 |                        |                            |  |   |
|--|---------------------------------|------------------------|----------------------------|--|---|
| <b>Codes A</b>   | <b>Code B</b>                   | <b>Code C</b>          | <b>Codes D</b>             | <b>Code E</b>                            | <b>Codes G</b>                          |
| 1. Individual title/deed                               | 1. Inherited                    | 1. None                | 1. Smallholder agriculture | 1. Inside village                        | 1. Other community/ association members |
| 2. Owned by custom (not titled)                        | 2. Bought                       | 2. Fixed land rent     | 2. Commercial agriculture  | 2. Outside village, but inside community | 2. Migrants                             |
| 3. Owned by collective deed (e.g. through association) | 3. Rented                       | 3. Profit share        | 3. Fallow                  | 3. Outside community                     | 3. Company X                            |
| 3. Village land  | 4. Borrowed for free            | 4. Sharecropping       | 4. Forest                  | <b>Codes F</b>                           | 4. Other private investors              |
| 4. State land  | 5. Donated by community leaders | 5. Homage/ goodwill    | 5. Grassland               | 1. Yes                                   | 5. State                                |
| 5. Company land  | 6. Donated by state             | 6. Other, specify..... | 6. Wetland                 | 0. No                                    | 6. Other, specify.....                  |
| 6. Private individual's land                           | 7. Donated by company           |                        | 7. Shrubland               |  |   |
| 8. Other, specify.....                                 | 8. Took possession              |                        | 8. Unknown/ too long ago   |  |   |
|  | 9. Other, specify.....          |                        | 9. Other, specify.....     |  |   |

**E.2 – Land activities (if involved in agriculture)**

Plot ID	Plot cultivated during the last planting season (Code A)	If yes, person making decision what to cultivate (Code B)	Who worked the land last season? (list up to 3; Code C)			What were the main land use activities in the last planting season (name up to 3 land uses (e.g. crops), in order of importance)	Type of production activities (Code D)	How was produce used (Code E)	If sold, through or to whom? (Code F)
1									
2									
3									
4									
5									
6									
7									

- |                |                           |                                     |                       |                        |
|----------------|---------------------------|-------------------------------------|-----------------------|------------------------|
| <b>Codes A</b> | <b>Codes B</b>            | <b>Codes C</b>                      | <b>Codes E</b>        | <b>Codes F</b>         |
| 1. Yes         | 1. Household head         | 1. Household members                | 1. All consumption    | 1. Local market        |
| 0. No          | 2. Spouse                 | 2. Laborers hired by household      | 2. All sold           | 2. Company             |
|                | 3. Parent                 | 3. Laborers employed by association | 3. Mostly consumption | 3. Government          |
|                | 4. (grand) children       | 5. Other, specify:.....             | 4. Mostly sold        | 4. NGO                 |
|                | 5. Directly hired laborer |                                     | 5. Equal              | 5. Middlemen           |
|                | 6. Entire household       | <b>Codes D</b>                      |                       | 6. Traders             |
|                | 7. Association            | 1. Permanent cultivation            |                       | 7. Association         |
|                | 8. Company                | 2. Periodic (shifting cultivation)  |                       | 8. Other, specify..... |
|                | 9. Other, specify.....    | 3. Periodic (when needed)           |                       |                        |
|                |                           | 4. Other, specify.....              |                       |                        |

**E.3 – Input use (if involved in agriculture and personally apply inputs to land)**

Input	Inputs used during the last planting season (Code A)	If yes, which plots (list plot number from E.1)	How much inputs were used during last planting season (number, specify unit) KG	Source of inputs (Code B)	Type of contract with source (Code C)	Type of payment (Code D)
1. Improved seed(lings)						
2. Fertilizer						
3. Pesticide, herbicide, or fungicide						

<b>4. Tractors</b>								
<b>5. Harvesters</b>								
<b>6. Irrigation</b>								
<b>7. Credit</b>								
<b>8. Technical support</b>								
<b>9. Other, specify.....</b>								

**Codes A**

- 1. Yes
- 0. No

**Codes B**

- 1. NGO
- 2. Government
- 3. Company
- 4. Association
- 5. Farmer's club
- 6. Shop/market
- 7. Other, specify.....

**Coded C**

- 1. Verbal agreement
- 2. Written
- 0. None

**Codes D**

- 1. Free
- 2. Cash
- 3. Repayment of value after harvest without interest
- 4. Repayment of value after harvest with interest
- 5. Profit share after harvest
- 6. Long-term loan with interest
- 7. Long term loan without interest
- 8. Other, specify.....

**F – Household Assets**

<p><b>1. Does the household or a household member own the dwelling?</b></p> <p><input type="checkbox"/> Owns the dwelling</p> <p><input type="checkbox"/> Rents the dwelling</p> <p><input type="checkbox"/> Uses without paying rent</p> <p><input type="checkbox"/> Nomadic or temporary dwelling</p> <p><b>2. When was the dwelling built?</b> <input style="width: 50px;" type="text"/></p> <p><b>3. How many rooms are there in your dwelling?</b></p> <p style="text-align: center;"><input style="width: 50px; border: 1px solid black;" type="text" value="--"/></p> <p><b>3. How does the amount of farmland you use compare with five year ago?</b></p> <p><input type="checkbox"/> More</p> <p><input type="checkbox"/> Less</p> <p><input type="checkbox"/> Same</p> <p>If more, specify amount .....</p> <p><b>4. Have your land holdings diminished?</b></p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><b>5. If Yes to 4., why did your land holdings diminish?</b></p> <p><input type="checkbox"/> Sold land holdings to sugarcane company</p> <p><input type="checkbox"/> Sold land holdings to sugarcane outgrower association</p> <p><input type="checkbox"/> Sold to another stakeholder</p> <p><input type="checkbox"/> Repatriated</p> <p><input type="checkbox"/> Other, please explain</p> <p><b>6. How does the amount of forestland you have</b></p>	<p><b>7. How does the amount of pastureland you have access to compare with five year ago?</b></p> <p><input type="checkbox"/> More</p> <p><input type="checkbox"/> Less</p> <p><input type="checkbox"/> Same</p> <p><b>8. How many head of cattle and other large livestock are currently owned?</b> <input style="width: 50px;" type="text"/></p> <p><b>9. How does this number of livestock compare with five years ago?</b></p> <p><input type="checkbox"/> More</p> <p><input type="checkbox"/> Less</p> <p><input type="checkbox"/> Same</p> <p><b>10. How many sheep, goats, and other medium size animals are currently owned by the household?</b> <input style="width: 50px;" type="text"/></p> <p><b>11. How does this number of livestock compare with five years ago?</b></p> <p><input type="checkbox"/> More</p> <p><input type="checkbox"/> Less</p> <p><input type="checkbox"/> Same</p>	<p><b>12. Does the household own any of the following goods?</b></p> <p><input type="checkbox"/> Electric iron</p> <p><input type="checkbox"/> Charcoal Iron</p> <p><input type="checkbox"/> Refrigerator</p> <p><input type="checkbox"/> Television</p> <p><input type="checkbox"/> Television decoder</p> <p><input type="checkbox"/> Mobile phone</p> <p><input type="checkbox"/> Radio</p> <p><input type="checkbox"/> Mattress or bed</p> <p><input type="checkbox"/> Sewing machine</p> <p><input type="checkbox"/> Modern stove</p> <p><input type="checkbox"/> Bicycle</p> <p><input type="checkbox"/> Motorcycle</p> <p><input type="checkbox"/> Car</p> <p><input type="checkbox"/> Vehicle</p> <p><input type="checkbox"/> Fan</p> <p><input type="checkbox"/> Personal computer</p> <p><input type="checkbox"/> VCR/DVD player</p> <p><input type="checkbox"/> Sofa</p> <p><input type="checkbox"/> Generator</p> <p><b>13. Does the household systematically use the following?</b></p> <p><input type="checkbox"/> Soap</p> <p><input type="checkbox"/> Toothpaste</p> <p><input type="checkbox"/> Medicine from pharmacies</p> <p><input type="checkbox"/> Sugar</p>
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<p><b>access to compare with five year ago?</b></p> <p><input type="checkbox"/> More</p> <p><input type="checkbox"/> Less</p> <p><input type="checkbox"/> Same</p>		
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**G– Household Amenities**

<p><b>1. What is the material of the roof of the dwelling?</b></p> <p><input type="checkbox"/> Mud</p> <p><input type="checkbox"/> Thatch</p> <p><input type="checkbox"/> Iron sheets</p> <p><input type="checkbox"/> Cement/concrete</p> <p><input type="checkbox"/> Roofing tiles</p> <p><input type="checkbox"/> Asbestos</p> <p><input type="checkbox"/> Other.....</p> <p><b>2. What is the material of the walls of your house?</b></p> <p><input type="checkbox"/> Mud/mud bricks</p> <p><input type="checkbox"/> Stone</p> <p><input type="checkbox"/> Burnt bricks</p> <p><input type="checkbox"/> Wood/bamboo</p> <p><input type="checkbox"/> Iron sheets</p> <p><input type="checkbox"/> Cardboard</p> <p><input type="checkbox"/> Cement/concrete</p> <p><input type="checkbox"/> Other.....</p> <p><b>3. What is your main source of electricity?</b></p> <p><input type="checkbox"/> None</p> <p><input type="checkbox"/> Electricity grid</p> <p><input type="checkbox"/> Private generator</p> <p><input type="checkbox"/> Rural electricity plant/generator</p> <p><input type="checkbox"/> Solar</p>	<p><b>4. What is the main source of drinking water?</b></p> <p><input type="checkbox"/> Piped into dwelling or compound</p> <p><input type="checkbox"/> Public outdoor tap or borehole</p> <p><input type="checkbox"/> Protected well</p> <p><input type="checkbox"/> Unprotected well/rain water</p> <p><input type="checkbox"/> River, lake, pond</p> <p><input type="checkbox"/> Vendor or truck</p> <p><input type="checkbox"/> Other.....</p> <p><b>5. What kind of toilet facilities does your household use?</b></p> <p><input type="checkbox"/> None</p> <p><input type="checkbox"/> Flush to sewer</p> <p><input type="checkbox"/> Flush to septic tank</p> <p><input type="checkbox"/> Pan/bucket</p> <p><input type="checkbox"/> Covered pit latrine</p> <p><input type="checkbox"/> Uncovered pit latrine</p> <p><input type="checkbox"/> Ventilation improved pit latrine</p> <p><input type="checkbox"/> Other.....</p>	<p><b>6. What is the main fuel used for cooking?</b></p> <p><input type="checkbox"/> Firewood</p> <p><input type="checkbox"/> Charcoal</p> <p><input type="checkbox"/> Kerosene/oil</p> <p><input type="checkbox"/> Gas</p> <p><input type="checkbox"/> Electricity</p> <p><input type="checkbox"/> Crop residue/saw dust</p> <p><input type="checkbox"/> Animal waste</p> <p><input type="checkbox"/> Other.....</p> <p><b>7. What is the main fuel used for lighting?</b></p> <p><input type="checkbox"/> Kerosene/paraffin</p> <p><input type="checkbox"/> Gas</p> <p><input type="checkbox"/> Electricity</p> <p><input type="checkbox"/> Generator</p> <p><input type="checkbox"/> Battery</p> <p><input type="checkbox"/> Candles</p> <p><input type="checkbox"/> Firewood</p> <p><input type="checkbox"/> Other.....</p>
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<p><b>1. How do you compare the overall welfare situation of the household with five years ago?</b></p> <p><input type="checkbox"/> Better off  <input type="checkbox"/> Worse off  <input type="checkbox"/> Same</p>	<p><b>2. If better off, what factors most contributed to that?</b></p> <ol style="list-style-type: none"> <li>1. More cash income from employment in sugarcane sector</li> <li>2. More cash income from employment at other jobs</li> <li>3. More cash income from sugarcane farming</li> <li>4. Able to reinvest cash income in other activities</li> <li>5. Improved quality of housing</li> <li>6. Improved access to schooling</li> <li>7. Improved access to medical facilities</li> <li>8. Improved access to electricity</li> <li>9. Improved access to inputs (besides those used for contract farming)</li> <li>10. Easier to sell products (besides contract farming)</li> <li>11. Increased contribution of children to household income</li> <li>12. Increase in social network</li> <li>13. More remittances</li> <li>14. Own more land</li> <li>15. More secure land rights</li> <li>16. Other, specify.....</li> </ol> <p><b>Rank up to 3 main reasons (list above numbers)</b></p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 33%;">1</td> <td style="width: 33%;">2</td> <td style="width: 33%;">3</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	1	2	3				<p><b>3. If same or worse off, what factors reduced your capacity to become better off?</b></p> <ol style="list-style-type: none"> <li>1. Sickness/death of HH member</li> <li>2. Natural disasters</li> <li>3. Loss of farmland</li> <li>4. Loss of pastureland</li> <li>5. Loss of forestland</li> <li>6. Social conflicts</li> <li>7. Lower prices for produce</li> <li>8. No market for produce</li> <li>9. Land degradation/productivity loss</li> <li>10. Higher prices of purchased goods</li> <li>11. Loss of job/redundancy</li> <li>12. Income from company X too low</li> <li>13. No skills/lack of education</li> <li>14. Not able to become contract farmer</li> <li>15. High debts</li> <li>16. Become too old</li> <li>17. Other, specify.....</li> </ol> <p><b>Rank up to 3 main reasons (list above numbers)</b></p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 33%;">1</td> <td style="width: 33%;">2</td> <td style="width: 33%;">3</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	1	2	3			
1	2	3												
1	2	3												

**H – Subjective welfare indicators**

**J – Household Food Insecurity**

Questions concerning the past 4 weeks	Response 1. Yes 0. No	If affirmative, what is the frequency? 1. Rarely (once or twice in 4 weeks) 2. Sometimes (3-10 times in 4 weeks) 3. Often (more than 10 times in 4 weeks)
1. Did you worry that your household would not have enough food?		
2. Were you or any household member not able to eat the kinds of foods you preferred because of a lack of resources?		
3. Did you or any household member have to eat a limited variety of foods due to a lack of resources?		
4. Did you or any household member have to eat some foods that you really did not want to eat because of a lack of resources to obtain other types of food?		

5. Did you or any household member have to eat a smaller meal than you felt you needed because there was not enough food?		
6. Did you or any other household member have to eat fewer meals in a day because there was not enough food?		
7. Was there ever no food to eat of any kind in your household because of lack of resources to get food?		
8. Did you or any household member go to sleep at night hungry because there was not enough food?		
9. Did you or any household member go a whole day and night without eating anything because there was not enough food?		

**Codes for Section D**

**Forestry:**

1. Charcoal making
2. Timber harvesting
3. Hunting
4. (NTFP)
5. Other.....

**Livestock**

1. Cattle herding
2. Goat/sheep herding
3. Chicken keeping
4. Pig keeping
5. Duck keeping
6. Other.....

**Fishing**

1. Using a pond
2. In the river
3. In the ocean

**Agriculture**

5. Cane farming through association
6. Cane farming independently
7. Subsistence farming
8. Other .....

**Employment:**

No number – just specify type of job and who person is employed with (e.g. cane cutter at Company X, clerk at government agency)

**Remittances and pension:**

No number – specify source of pension and remittances (e.g. son in the USA, state pension, etc.)

**Additional supplement for contract farmers at KSCL**

<p><b>1. When did you join your current sugarcane outgrowers association? Enter year and association name.</b></p> <p><input type="text"/></p> <p><b>2. Do you participate in a block farm?</b></p> <p><input type="checkbox"/> Yes, all land on block farm is treated equally and profits are divided</p> <p><input type="checkbox"/> Yes, land on block farm is divided onto individual plots with individual profits</p> <p><input type="checkbox"/> No, was asked but decided not to</p> <p><input type="checkbox"/> No, was not asked or given opportunity</p> <p><b>3. What is your role in the association</b></p> <p><input type="checkbox"/> Regular member</p> <p><input type="checkbox"/> Founding member</p> <p><input type="checkbox"/> Board member</p> <p>If yes, what position.....</p> <p><b>4. Are you a member of a farming group within your village?</b></p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><b>9. Why did you join the association (check all that apply)</b></p> <p><input type="checkbox"/> Referral from other members</p> <p><input type="checkbox"/> Location of association</p> <p><input type="checkbox"/> Founding member</p> <p><input type="checkbox"/> Ability of association to access credit</p> <p><input type="checkbox"/> Ability of association to access inputs</p> <p><input type="checkbox"/> Ability of association to access transportation to mill</p> <p><input type="checkbox"/> Other, please specify.....</p>	<p><b>10. Is your situation better or worse off since joining the association?</b></p> <p><input type="checkbox"/> Better</p> <p><input type="checkbox"/> Worse</p> <p><input type="checkbox"/> The same</p> <p><b>11. Have you changed associations?</b></p> <p><input type="checkbox"/> Yes, please provide name you changed from.....</p> <p><input type="checkbox"/> No</p> <p><b>12. If Yes under 10, why have you changed associations? (check all that apply)</b></p> <p><input type="checkbox"/> New association has better access to credit</p> <p><input type="checkbox"/> New association has better access to inputs</p> <p><input type="checkbox"/> New association has a better relationship to company</p> <p><input type="checkbox"/> New association is better organized</p> <p><input type="checkbox"/> Other, please specify.....</p> <p><b>13. If yes under 10, is your situation better or worse off since joining the new association?</b></p> <p><input type="checkbox"/> Better</p> <p><input type="checkbox"/> Worse</p> <p><input type="checkbox"/> The same</p> <p><b>14. Do you supplement inputs provided by association with your own inputs?</b></p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><b>11. Do you receive extension services or training for your sugarcane farming ?</b></p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Not relevant</p> <p><b>12. If yes under 11, where did you receive extension services from? Check all that apply</b></p> <p><input type="checkbox"/> Sugarcane Outgrower Association</p> <p><input type="checkbox"/> Government extension officers</p> <p><input type="checkbox"/> SBT</p> <p><input type="checkbox"/> KCCT</p> <p><input type="checkbox"/> Other, please specify.....</p>	<p><b>13. Did the income you earn from sugarcane farming enable you to invest in other productive activities?</b></p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes</p> <p>If yes, specify activity.....</p> <p><b>14. Do you have plans to expand your sugarcane farming?</b></p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Undecided</p> <p><b>15. If yes to 14, what is keeping you from expansion?</b></p> <p><input type="checkbox"/> Lack of access to more land</p> <p><input type="checkbox"/> Lack of access to credits</p> <p><input type="checkbox"/> Lack of sufficient resources for cultivation</p> <p><input type="checkbox"/> Not enough suitable land available</p> <p><input type="checkbox"/> Other, please specify.....</p> <p><b>16. If yes to 2, where is the block farm located? Please specify.....</b></p> <p><b>17. If yes under 2, why did you join the block farm?</b></p> <p><input type="checkbox"/> Financial gains from efficiency of block farm</p> <p><input type="checkbox"/> Social pressure to join</p> <p><input type="checkbox"/> Requirement to keep land</p> <p><input type="checkbox"/> Requirement to keep sugarcane farming</p> <p><input type="checkbox"/> Other, please specify.....</p> <p><b>18. If no under 2, why did you not join the block farm</b></p> <p><input type="checkbox"/> Did not want to give up specific areas of land</p> <p><input type="checkbox"/> Did not see that it would be more efficient</p> <p><input type="checkbox"/> Did not want to work with other farmers on that level</p> <p><input type="checkbox"/> Not enough suitable land in one area</p> <p><input type="checkbox"/> Other, please specify.....</p>
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**M. Association Performance (for sugarcane outgrower association members working with KSC only)**

How well did the association perform in the following dimensions?	Tick relevant box				
	Not relevant	Never	Some-times	Mostly	Always
1. The association board takes care of all the labor that is needed for cutting and transport					
2. The association board provides all the inputs needed					
3. The association provides enough inputs needed					
4. The association provides inputs of good quality					
5. The association provides inputs in a timely manner					
6. The association board is able to resolve internal conflicts					
7. The association board is able to resolve conflicts with KSC					
8. The association does not favor some members over others					
9. The association board is transparent and open about how revenues are distributed					
10. The association board is able to exercise good financial management (e.g. in repaying loans)					
11. The association board is open to new members					
12. There is social pressure to elect certain persons as association presidents					
13. When important decisions are made the association board consults the association's general assembly					

<p><b>1. When did you first start selling sugarcane to Mtibwa? Enter year</b></p> <p><input type="text"/></p> <p><b>2. When did you join the Mtibwa outgrowers association? Enter year</b></p> <p><input type="text"/></p> <p><b>3. Are you also a member of TUCO?</b></p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><b>4. When you last sold sugarcane, who did you sell it through?</b></p> <p><input type="checkbox"/> MOA <input type="checkbox"/> TUCO <input type="checkbox"/> To another sugarcane farmer <input type="checkbox"/> Both MOA and TUCO</p> <p><b>3.What is your role in the association</b></p> <p><input type="checkbox"/> Regular member <input type="checkbox"/> Founding member <input type="checkbox"/> Board member If yes, what position.....</p> <p><b>4. Are you a member of a farming group within your village?</b></p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><b>15. Why did you join the association (check all that apply)</b></p> <p><input type="checkbox"/> Referral from other members <input type="checkbox"/> Location of association <input type="checkbox"/> Founding member <input type="checkbox"/> Ability of association to access credit <input type="checkbox"/> Ability of association to access inputs <input type="checkbox"/> Ability of association to access transportation to mill <input type="checkbox"/> Other, please specify.....</p>	<p><b>16. Is your situation better or worse off since joining MOA or TUCO?</b></p> <p><input type="checkbox"/> Better <input type="checkbox"/> Worse <input type="checkbox"/> The same</p> <p><b>17. Do you supplement inputs provided by association with your own inputs?</b></p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><b>18. If yes, which inputs do you supplement with your own?</b></p> <p><input type="checkbox"/> Fertilizer <input type="checkbox"/> Pesticide <input type="checkbox"/> Herbicide <input type="checkbox"/> Harvesting <input type="checkbox"/> Land prep</p> <p><b>11. Do you receive extension services or training for your sugarcane farming ?</b></p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not relevant</p> <p><b>12. If yes under 11, where did you receive extension services from? Check all that apply</b></p> <p><input type="checkbox"/> Sugarcane Outgrower Association <input type="checkbox"/> Mtibwa Sugarcane Company <input type="checkbox"/> Community initiatives <input type="checkbox"/> Government extension officers <input type="checkbox"/> SBT <input type="checkbox"/> Other, please specify.....</p> <p><b>13. When did you last receive extension services or training</b></p> <p><input type="checkbox"/> In the last month <input type="checkbox"/> In the last three months <input type="checkbox"/> In the last 6 months <input type="checkbox"/> In the last year <input type="checkbox"/> more than a year</p>	<p><b>14. Did the income you earn from sugarcane farming enable you to invest in other productive activities?</b></p> <p><input type="checkbox"/> No <input type="checkbox"/> Yes If yes, specify activity.....</p> <p><b>15. Do you have plans to expand your sugarcane farming?</b></p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Undecided</p> <p><b>16. If yes to 15 what is keeping you from expansion?</b></p> <p><input type="checkbox"/> Lack of access to more land <input type="checkbox"/> Lack of access to credits <input type="checkbox"/> Lack of sufficient resources for cultivation <input type="checkbox"/> Not enough suitable land available <input type="checkbox"/> Other, please specify.....</p>
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**Additional supplement for contract farmers at Mtibwa Participant:**

**M. Association Performance (for sugarcane outgrowers working with Mtibwa Outgrowers Association)**

How well did the association perform in the following dimensions?	Tick relevant box				
	Not relevant	Never	Some-times	Mostly	Always
14. The association board takes care of all the labor that is needed for cutting and transport					
15. The association board provides all the inputs needed					
16. The association provides enough inputs needed					
17. The association provides inputs of good quality					
18. The association provides inputs in a timely manner					
19. The association board is able to resolve internal conflicts					
20. The association board is able to resolve conflicts with Mtibwa Sugar Company					
21. The association does not favour some members over others					
22. The association board is transparent and open about how revenues are distributed					
23. The association board is able to exercise good financial management (e.g. in repaying loans)					
24. The association board is open to new members					
25. There is social pressure to elect certain persons as association presidents					
26. When important decisions are made the association board consults the association's general assembly					

Additional supplement for excluded local population members in the Kapunga and MKRS cases

<p><b>1. Did anybody in your household have a contract with Mtenda or Kapunga in the past but is no longer so?</b></p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes, Mtenda</p> <p><input type="checkbox"/> Yes, Kapunga as an employee</p> <p><input type="checkbox"/> Yes, Kapunga as an outgrower</p> <p><b>2. If yes under 1, why did you stop?</b></p> <p><input type="checkbox"/> Contract not renewed</p> <p><input type="checkbox"/> Voluntarily stopped due to lack of sufficient income</p> <p><input type="checkbox"/> Voluntarily stopped because of better opportunities</p> <p><input type="checkbox"/> Voluntarily stopped because of lack of time</p> <p><input type="checkbox"/> Other, specify.....</p> <p><b>3. Is anyone in your household growing paddy?</b></p> <p><input type="checkbox"/> Yes, an independent paddy growing farmer</p> <p><input type="checkbox"/> Yes, a paddy farmer in an association not working with Mtenda or Kapunga</p> <p><input type="checkbox"/> No</p> <p><b>4. If never working with Mtenda or Kapunga, are you interested in a contract with either?</b></p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes, Mtenda</p> <p><input type="checkbox"/> Yes, Kapunga</p> <p><input type="checkbox"/> Yes, either</p> <p><b>5. If yes under 4, why are you currently growing paddy for Mtenda or Kapunga?</b></p> <p><input type="checkbox"/> Cannot become a paddy grower</p> <p><input type="checkbox"/> Cannot get access to capital to start growing paddy</p> <p><input type="checkbox"/> Other, please specify.....</p>	<p><b>6. If you cannot get a contract under 5, why?</b></p> <p><input type="checkbox"/> Contracts with Kapunga or Mtenda is only for village elites</p> <p><input type="checkbox"/> Do not own enough land</p> <p><input type="checkbox"/> Land is too far away from mill to afford transportation costs</p> <p><input type="checkbox"/> Not affiliated with right religious institution/not the same religion as association members</p> <p><input type="checkbox"/> No family who has contracts with Kapunga or Mtenda</p> <p><input type="checkbox"/> Other, specify.....</p> <p><b>7. If no under 4, why are you not interested in becoming a paddy farmer?</b></p> <p><input type="checkbox"/> Risk too high</p> <p><input type="checkbox"/> Income is too irregular/infrequent</p> <p><input type="checkbox"/> Is not profitable enough</p> <p><input type="checkbox"/> Fear of food insecurity</p> <p><input type="checkbox"/> Other, specify.....</p> <p><b>8. Do you receive extension services or training for any agricultural activities you have?</b></p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Not relevant</p> <p><b>9. If yes under 7, where did you receive extension services from? Check all that apply</b></p> <p><input type="checkbox"/> Government extension officers</p> <p><input type="checkbox"/> Companies processing rice</p> <p><input type="checkbox"/> Community initiatives</p> <p><input type="checkbox"/> Other, please specify.....</p> <p><b>When did you last receive extension services or training</b></p> <p><input type="checkbox"/> In the last month</p> <p><input type="checkbox"/> In the last three months</p> <p><input type="checkbox"/> In the last 6 months</p> <p><input type="checkbox"/> In the last year</p> <p><input type="checkbox"/> more than a year</p> <p><b>10. If never an employee (from 1), of Kapunga are you interested in becoming a rice employee?</b></p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes</p> <p><b>11. If yes under 10, why are you currently not a paddy employee?</b></p>	<p><b>12. If no under 10, why are you not interested in becoming a paddy employee?</b></p> <p><input type="checkbox"/> Distance too far/lack of transportation options</p> <p><input type="checkbox"/> Job insecurity</p> <p><input type="checkbox"/> Pay too low</p> <p><input type="checkbox"/> Health/safety hazards</p> <p><input type="checkbox"/> Social stigma</p> <p><input type="checkbox"/> Cannot combine with other livelihood activities</p> <p><input type="checkbox"/> Other, specify.....</p> <p><b>13. If you grow paddy, do you sell to a paddy association that works with Mtenda or Kapunga?</b></p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes, please specify how much in last year.....</p> <p><b>14. Since paddy farmers working with Mtenda or Kapunga have been in your village, have you experienced any of the following positive effects? (check all that apply)</b></p> <p><input type="checkbox"/> Increase in price or amount of other agricultural products purchased by association members</p> <p><input type="checkbox"/> Increase in demand or purchase of non-agricultural services (clothing, stationary goods, etc.)</p> <p><input type="checkbox"/> Improved roads</p> <p><input type="checkbox"/> Improvements in local schools</p> <p><input type="checkbox"/> Other village improvements, please specify.....</p> <p><b>15. Since paddy farmers working with Mtenda or Kapunga have been in your village, have you experienced any of the following negative effects? (check all that apply)</b></p> <p><input type="checkbox"/> Decrease in access to loans</p> <p><input type="checkbox"/> Decrease in land holdings</p> <p><input type="checkbox"/> Decrease in demand for agricultural products</p> <p><input type="checkbox"/> Decrease in demand for purchase of non-agricultural goods (clothing, stationary goods, etc.)</p> <p><input type="checkbox"/> Decrease in road quality</p> <p><input type="checkbox"/> Decrease in local school quality</p> <p><input type="checkbox"/> Other village dis-improvements, please specify.....</p>
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	<ul style="list-style-type: none"><li><input type="checkbox"/> Do not have the connections</li><li><input type="checkbox"/> Employment is discouraged by village (elites)</li><li><input type="checkbox"/> Cannot get the type of job or contract I want</li><li><input type="checkbox"/> Company does not hire in my community</li><li><input type="checkbox"/> Not an association member</li><li><input type="checkbox"/> Other, specify.....</li></ul>	
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Additional supplement for excluded local population members in Mtibwa case

<p><b>1. Did anybody in your household have a membership to MOA or TUCO or was an employee at Mtibwa but no longer has a contract?</b></p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes, MOA</p> <p><input type="checkbox"/> Yes, TUCO</p> <p><input type="checkbox"/> Yes, Mtibwa as an employee</p> <p><input type="checkbox"/> Yes, both an employee and an outgrower in MOA or TUCO</p> <p><b>2. If yes under 1, why did you stop?</b></p> <p><input type="checkbox"/> Contract not renewed</p> <p><input type="checkbox"/> Voluntarily stopped due to lack of sufficient income</p> <p><input type="checkbox"/> Voluntarily stopped because of better opportunities</p> <p><input type="checkbox"/> Voluntarily stopped because of lack of time</p> <p><input type="checkbox"/> Other, specify.....</p> <p><b>3. Is anyone in your household growing sugarcane?</b></p> <p><input type="checkbox"/> Yes, an independent sugarcane growing farmer</p> <p><input type="checkbox"/> Yes, a sugarcane farmer not selling to or working with Mtibwa</p> <p><input type="checkbox"/> No</p> <p><b>4. If never working Mtibwa or in MOA are you interested in a contract with either?</b></p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes, MOA</p> <p><input type="checkbox"/> Yes, Mtibwa</p> <p><input type="checkbox"/> Yes, either</p> <p><b>5. If yes under 4, why are you not currently growing sugarcane for MOA?</b></p> <p><input type="checkbox"/> Cannot become a sugarcane grower</p> <p><input type="checkbox"/> Cannot get access to capital to start growing sugarcane</p> <p><input type="checkbox"/> Other, please specify.....</p>	<p><b>6. If you cannot get a contract under 5, why?</b></p> <p><input type="checkbox"/> Contracts with MOA or TUCO is only for village elites</p> <p><input type="checkbox"/> Do not own enough land</p> <p><input type="checkbox"/> Land is too far away from mill to afford transportation costs</p> <p><input type="checkbox"/> Not affiliated with right religious institution/not the same religion as association members</p> <p><input type="checkbox"/> No family who has contracts with MOA or TUCO</p> <p><input type="checkbox"/> Other, specify.....</p> <p><b>7. If no under 4, why are you not interested in becoming a sugarcane farmer?</b></p> <p><input type="checkbox"/> Risk too high</p> <p><input type="checkbox"/> Income is too irregular/infrequent</p> <p><input type="checkbox"/> Is not profitable enough</p> <p><input type="checkbox"/> Fear of food insecurity</p> <p><input type="checkbox"/> Other, specify.....</p> <p><b>8. Do you receive extension services or training for any agricultural activities you have?</b></p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Not relevant</p> <p><b>9. If yes under 7, where did you receive extension services from? Check all that apply</b></p> <p><input type="checkbox"/> Government extension officers</p> <p><input type="checkbox"/> Mtibwa</p> <p><input type="checkbox"/> Sugarcane outgrower associations</p> <p><input type="checkbox"/> Sugar Board of Tanzania</p> <p><input type="checkbox"/> Community initiatives</p> <p><input type="checkbox"/> Other, please specify.....</p> <p><b>10. When did you last receive extension services or training</b></p> <p><input type="checkbox"/> In the last month</p> <p><input type="checkbox"/> In the last three months</p> <p><input type="checkbox"/> In the last 6 months</p> <p><input type="checkbox"/> In the last year</p> <p><input type="checkbox"/> more than a year</p> <p><b>11. If never an employee (from 1), of Mtibwa are you interested in becoming a Mtibwa employee?</b></p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes</p>	<p><b>13. If no under 11, why are you not interested in becoming an employee of Mtibwa? Check all that apply.</b></p> <p><input type="checkbox"/> Distance too far/lack of transportation options</p> <p><input type="checkbox"/> Job insecurity</p> <p><input type="checkbox"/> Pay too low</p> <p><input type="checkbox"/> Health/safety hazards</p> <p><input type="checkbox"/> Social stigma</p> <p><input type="checkbox"/> Cannot combine with other livelihood activities</p> <p><input type="checkbox"/> Other, specify.....</p> <p><b>14. If you grow sugarcane, do you sell to the following groups?</b></p> <p><input type="checkbox"/> MOA members</p> <p><input type="checkbox"/> TUCO members</p> <p><input type="checkbox"/> Both MOA and TUCO members</p> <p><input type="checkbox"/> to individual sugarcane growers not working with MOA or TUCO</p> <p><b>15. If yes to 14, specify how much sugarcane in the last year you sold.....</b></p> <p><b>16. Since sugarcane farmers working with MOA and TUCO have been in your village, have you experienced any of the following positive effects? (check all that apply)</b></p> <p><input type="checkbox"/> Increase in price or amount of other agricultural products purchased by association members</p> <p><input type="checkbox"/> Increase in demand or purchase of non-agricultural services (clothing, stationary goods, etc.)</p> <p><input type="checkbox"/> Improved roads</p> <p><input type="checkbox"/> Improvements in local schools</p> <p><input type="checkbox"/> Other village improvements, please specify.....</p> <p><b>17. Since sugarcane farmers working with MOA and TUCO have been in your village, have you experienced any of the following negative effects? (check all that apply)</b></p> <p><input type="checkbox"/> Decrease in access to loans</p> <p><input type="checkbox"/> Decrease in land holdings</p> <p><input type="checkbox"/> Decrease in demand for agricultural products</p> <p><input type="checkbox"/> Decrease in demand for purchase of non-agricultural goods (clothing, stationary goods, etc.)</p> <p><input type="checkbox"/> Decrease in road quality</p> <p><input type="checkbox"/> Decrease in local school quality</p>
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	<p><b>12. If yes under 11, why are you currently not working at Mitbwa as an employee?</b></p> <ul style="list-style-type: none"><li><input type="checkbox"/> Do not have the connections</li><li><input type="checkbox"/> Employment is discouraged by village (elites)</li><li><input type="checkbox"/> Cannot get the type of job or contract I want</li><li><input type="checkbox"/> Company does not hire in my community</li><li><input type="checkbox"/> Not an association member</li><li><input type="checkbox"/> Other, specify.....</li></ul>	<p><input type="checkbox"/> Other village dis-improvements, please specify.....</p>
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Appendix D: Photos



Top: KSCL outgrower association members

Bottom: Research Assistant Fariji in front of KSCL sugarcane fields



Top: Kapunga Plantation Limited rice mill tour

Middle: Setting-up for focus group with MKRS contract farmers, Mbarali

Bottom: Kapunga rice stored in company's own storage facility



Top: Kapunga Plantation Limited rice fields

Bottom left: MKRS rice

Bottom right: Research assistants, driver, and author near KSCL



# Declaration of co-authorship

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Co-authors should fulfill the requirements of the Vancouver rules<sup>i</sup>

## 1. Title of article:

Local exchange deals in Tanzanian Rice Investments: Contract farming and economic opportunities

Unpublished working paper manuscript.

Please note: A few pages from the working paper have been integrated into Chapter 5 and Chapter 6 in the PhD dissertation. The pages in Chapter 5 (particularly section 5.2.2 were originally written in collaboration with Faustin Maganga, although changes have been made by the PhD candidate to fit the dissertation, thus the submission of the declaration of co-authorship.

## 2. Declaration of the individual elements

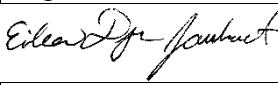


The extent of the candidate’s contribution to the article is assessed on the following scale

- A. has contributed to the work (0-33%)
- B. has made a substantial contribution (34-66%)
- C. did the majority of the work (67-100%)


	Eileen Dyer Jarnholt	Faustin Maganga	Lars Buur	George Schoneveld
1. Formulation in the concept phase of the basic scientific problem on the basis of theoretical questions which require clarification, including a summary of the general questions which it is assumed will be answered via analyses or actual experiments/investigations.	C	A	A	A
2. Planning of experiments/analyses and formulation of investigative methodology in such a way that the questions asked under (1) can be expected to be answered, including choice of method and independent methodological development	C			B

3. Involvement in the analysis or the actual experiments/investigation	C	A	A	A
4. Presentation, interpretation and discussion of the results obtained in the form of an article or manuscript.	C	B	B	A

### Signatures

Date	Name	Title	Signature
14 January 2020	Eileen Dyer Jarnholt	PhD Candidate	
13 Jan 2020	Faustin P. Maganga	Associate Professor	
14/01/2020	George Christoffel Schoneveld	Senior Economist	

### 3 Signatures

Date	Name	Title	Signature
11/01/2020	Wesley Bruce	ass. Professor	

<sup>i</sup>“All persons named as authors must satisfy the authorship requirement. The order of names must be a joint decision taken by all authors. The individual author must have participated in the work to a sufficient degree to be able to accept public liability for the content of the scientific work. Authorship can only be based on substantial contribution with regard to: 1) conception and design or analysis and interpretation of data, 2) drafting the article or revising it critically for important intellectual content, and 3) final approval of the version to be published. *Involvement based only on obtaining funding for the work or collecting data does not qualify for authorship, neither does general supervision of the research group in itself qualify as authorship.* If the authorship is collective, key persons who are responsible for the article must be identified. The editors of the scientific periodical may ask authors to account for their part in the authorship.”



