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Enclosed Land and Deprived Water. A Study of Impacts Resulting from a Large-Scale Agricultural Investment in Mbarali, Tanzania.

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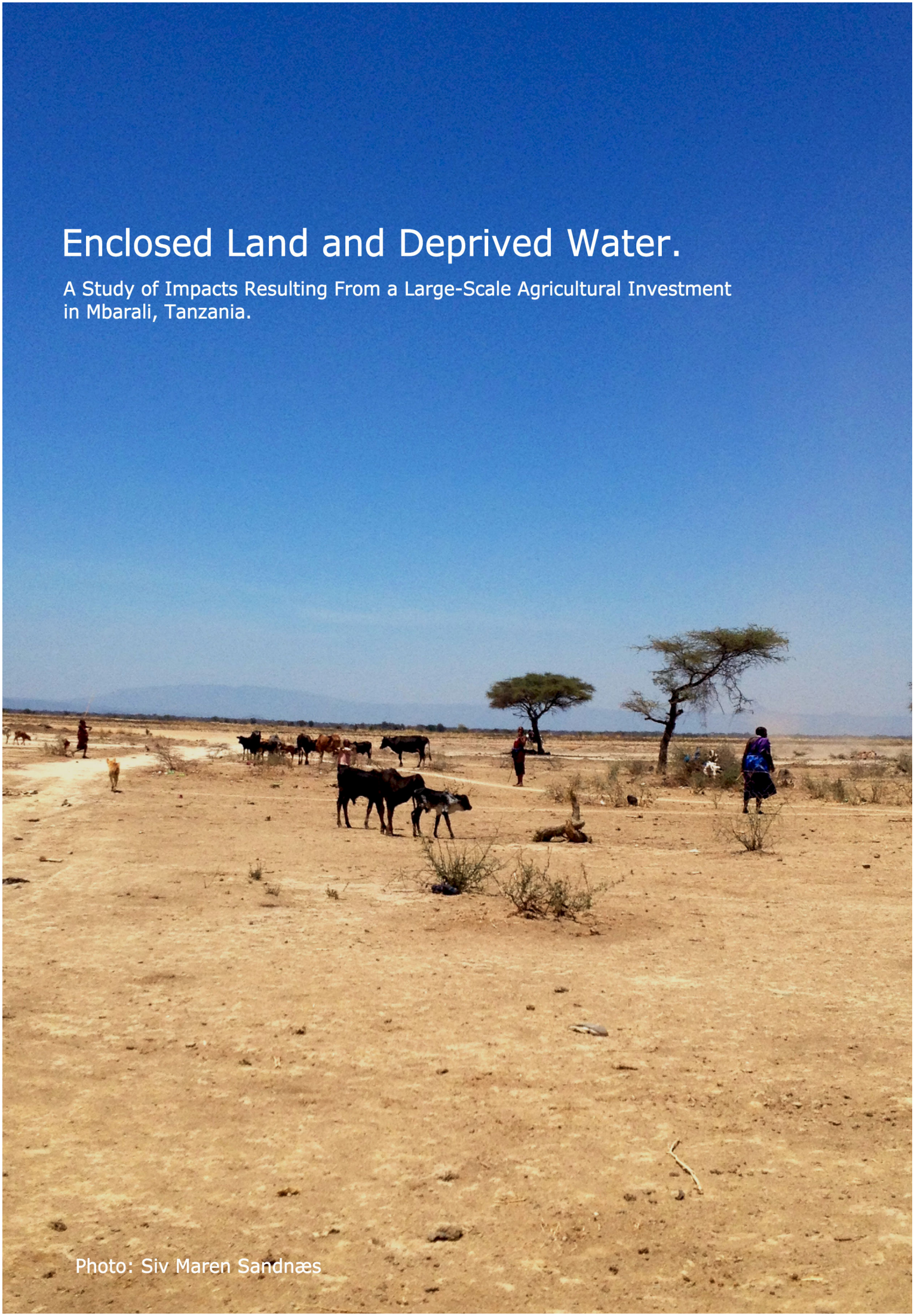

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Declaration

I, Siv Maren Sandnæs, declare that this thesis is a result of my research investigations and findings. Sources of information other than my own have been acknowledged and a reference list has been appended. This work has not been previously submitted to any other university for award of any type of academic degree.

Signature……..
Date……

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Abstract

This thesis examines the implications posed to local livelihoods and regional ecosystems by a large-scale agricultural investment in the Kapunga area, localized in the Usangu plains within the Mbarali district, Tanzania. The study contributes to a growing body of research on impacts of land acquisitions, providing a case study with a particular focus on water issues impacting livelihoods and ecosystems as well as issues of land enclosure. The thesis explores how local populations are experiencing the presence of a large-scale rice farm in their area, from the establishment of the farm under state ownership in 1991 to privatization in 2006 and to the present. Further, as the Usangu plains is an area of ecological value comprising the upper catchment of the nationally important Great Ruaha River Basin and Rufiji River Basin, basin-wide ecological impacts of such large-scale agricultural investments are also examined.

The study is based on primary findings gathered during a fieldwork in the Kapunga area in the fall of 2014, qualitative research methods were applied primarily by using semi-structured interviews. Local farmers, pastoralists and fishers were interviewed as well as some particular key informants. Primary findings are combined with secondary literature to give a comprehensive exploration of relevant issues. The empirical findings are coupled with a theoretical framework based on the theory of *accumulation by dispossession*, supplied with the *theory of access* and *legal pluralism*. Unfolding processes of dispossession of productive resources in the study area and describing how the investor is enabled access and control over resources in which local populations are dependent on. These findings are further discussed in the current Tanzanian policy context, which show a clear tendency of facilitating for large-scale agricultural investment amongst other through the SAGCOT initiative.

The thesis reveals that livelihoods in the Kapunga area are deprived of access to adequate water, and subjected to increased competition over land areas due to the large-scale agricultural investment present in their proximity. Basin-wide impacts of large-scale agricultural investments in the study area are evident in reduced dry season water flow in the Ruaha River, which adversely affects important wetlands, biodiversity and not least other water users in the basin. By intensifying competition over resources such as land and water, large-scale agricultural investments in the study area lead to dispossession of resources on local, regional and national levels.

TABLE OF CONTENTS

List of figures

Abbreviations

AMCO – Chimala Agricultural and Marketing Cooperative
ASDP – Agricultural Sector Development Program
ASDS – Agricultural Sector Development Strategy
BIT – Bilateral Investment Treaties
CAADP - the Comprehensive Africa Agriculture Development Programme
CEDAW - Convention on the Elimination of All Forms of Discrimination Against Women
CESCR – Convention Of Economic, Social and Cultural Rights
ETG – Export Trading Group Co. Ltd
FAO – United Nations Food and Agricultural Organization
GDP – Gross Domestic Product
HCHR – High Commissioner for Human Rights
ICESCR - International Covenant of Economic, Social and Cultural Rights
IFC – International Finance Corporation
ILC – International Land Coalition
IMF – International Monetary Fund
IWRM – Integrated Water Resources Management
LSAI – Large Scale Agricultural Investments
LSLI – Large Scale Land Investments
MKUKUTA – National Strategy for Growth and Reduction of Poverty
MNC – Multinational Corporations
NAFCO - National Agricultural and Food Corporation
NAFSN – The New Alliance for Food Security and Nutrition
NAWAPO – National Water Policy
NEPAD – the New Partnership for African Development
NORAD – Norwegian Agency for Development Cooperation
PPP – Public Private Partnership
RBWB – Rufiji Basin Water Board
RBWO – Rufiji Basin Water Office
RIPARWIN - Raising Irrigation Productivity and Releasing Water for Intersectoral Needs
RUBADA – Rufiji Basin Development Authority
SAGCOT – Southern Agricultural Growth Corridor
SAP – Structural Adjustment Programs
SMUWC - The comprehensive Sustainable Management of the Usangu Wetland and its Catchment
SPILL - strategic plan for the implementation of land laws
TANESCO – Tanzania National Electrical Supply Company
TIC – Tanzania Investment Center
UDHR – Universal Declaration of Human Rights
URT – United Republic of Tanzania
USAid – United States Agency for International Development
WEF – World Economic Forum
WRMA – Water Resources Management Act
WTO – Word Trade Organization
WUA – Water User Associations

1. Introduction

Large-scale investments in land have gained increased public attention over the last decade although they are not a new phenomenon. Land investments were common in the nineteenth and twentieth centuries but since decolonization from the 1960s onwards, this development diminished (Cotula, 2012a). However, a recent surge in investments in land is evident and the pace and dynamics of the trend as well as the size of recent land acquisitions distinguishes this wave from such developments in the past. For example, the US company Dominion Farms has acquired 30,000 ha in Nigeria; long-term leases often spanning for periods such as 49 or 99 years also appear to be part of the current trend (Franco, Borras Jr, et al., 2013). The global financial crisis of 2007/2008 and subsequent food price crises spurred what Anseeuw et al. (2012) have termed a *global land rush*. After a time of decreasing, food prices have again started to increase and food production has been perceived as a good investment opportunity. At the same time rising demand for energy and talk about 'peak oil' has led to increased investment in land for biofuel production. Further, a growing global population with higher standards of living and changing diets as well as increasing urbanization are some factors feeding into the mounting demand for food and agro-fuels (Rulli, Saviori, & D'Odorico, 2013).

The global population is estimated to reach a staggering nine billion by 2050; according to the UN this entails an increase in global food production by 70 per cent in order to avoid widespread food insecurity (FAO, 2009). The increasing demand for food thus represents favorable business opportunities for investors and agribusinesses (Anseeuw, Wily, Cotula, & Taylor, 2012; Cotula, 2012a). Ensuring global food security for a growing global population supports arguments for large-scale agricultural investments. On the other hand, estimates from the UN show that about 70 per cent of the people currently experiencing food insecurity and hunger worldwide are involved in food production, either as smallholder farmers, or landless agricultural workers (WFP, 2015b). A report composed by GRAIN has examined the role of small-scale farmers in global food production. It has found that: smallholders' access to land is diminishing, small-scale farms are getting smaller and land is generally being concentrated in fewer hands the world over. Small-scale farmers account for about 70 per cent of global food production, however they are "currently squeezed onto less than a quarter

of the world's farmland" (GRAIN, 2014, p. 4) Anseeuw et al (2012) note that small-scale farmers in the global South have previously experienced relatively few threats to their sustained access to resources. Therefore weak property rights to resources have largely been unproblematic, however the current wave of commercialization of land is now causing increasing dispossession of resources for rural dwellers. Resource management and agricultural policies are thus paramount in tackling rural poverty and food insecurity. "Decisions over land use and ownership carry great potential for promoting empowerment, sustainable livelihoods and food production systems, and dignity. Bad decisions over land can equally expand and entrench poverty, inequality and disempowerment" (Anseeuw et al., 2012, p. 9).

A Brief Account on Land Investments: Characteristics, Drivers and Impacts

Land is acquired by different actors and for different purposes; large-scale land investments (LSLIs) can for instance include sectors such as: real estate, infrastructure, industry, logging, mineral exploitation, environmental conservation, as well as agriculture or forestry. Investments in farmland often demand the largest areas, however other less spacious land acquisitions can nevertheless represent large impacts to local populations and ecosystems (Schoneveld, 2011). This thesis will focus on acquisitions of farmland, so-called Large Scale Agricultural Investments (LSAIs). Agriculture absorbs over 80 per cent of anthropogenic water abstraction globally, and water has been identified as a major driver in the surge of LSAIs. Many of the commercial crops produced on a large-scale such as sugar and rice depend on irrigation and thus imply large-scale use of water resources (Rulli et al., 2013; Woodhouse, 2012). Several cases of LSAIs have led to local populations experiencing reduced access to water resources; for instance in Iringa, Tanzania, LSAIs have led to contamination of water sources in which a population of 45,000 people depend on (Arduino, Colombo, Ocampo, & Panzeri, 2012). In Sudan large areas of land under private investment is located on the banks of the Blue Nile, which provides vital water to an arid region. The expansion of large-scale agriculture in this region has led to deprivation of water and land access for local residents. In turn, this has rendered them increasingly dependent on food aid although Sudan is a major producer and exporter of food crops (Rulli et al., 2013).

Food production as either a business opportunity or for ensuring availability of food is, as mentioned, contributing factors driving the rush for farmland. Investors representing states who are experiencing a decline in food self-sufficiency – such as the Gulf States, have resorted to investing in foreign farmland in order to safeguard national food security. Deteriorating ecological conditions such as water shortages in Saudi Arabia for instance, cause national food production to decline and make these states dependent on food imports (Cotula, 2012a; Franco, Kishimoto, Kay, Feodoroff, & Pracucci, 2014). As global food markets have proven to be unstable with fluctuating prices, outsourcing national food production through acquiring agricultural land and accompanying resources in foreign countries has been promoted as a solution to increase food security in these countries (Tortajada, 2013). However, such land acquisitions can also compromise food security for the local populations in host countries. They risk causing increased competition over land, deteriorating land rights and loss of access to productive resources; this further marginalizes rural and often poor populations and undermines traditional farming practices as land is commercialized (Anseeuw et al., 2012).

There has been a lot of focus on Asian investors in debates on land investments, however, European and American investors are also active players. European investors have for instance been tied to the increased interest in biofuel investments in African countries. Moreover, African investors are also partaking in the rising interest in African land. South African investors are increasingly involved in several land investments in the African region, and in Ethiopia, national elites obtain 60 per cent of land acquisitions (Cotula, 2012a). In some cases there can be several investors of different character and national origins involved in the same investment; this makes identifying the sources of the capital invested in such projects unclear and difficult. Although information about the investors is sometimes limited, evidence shows that private companies account for the majority of land deals rather than government entities. However, governments do play a crucial role in supporting agribusinesses in acquiring land (Anseeuw et al., 2012; Cotula, 2012a, 2012b; ILC, 2015).

Exactly how much land acquired by private investors is difficult to establish; different studies provide contrasting estimates based on varying indicators. A study of media reports featured on the International Land Coalition (ILC) blog showed that land deals in Africa in the period 2008-2010 covered between 51 and 63 million ha. Whereas a review of reports presented on

GRAIN's blog showed that land deals covering 56.6 million ha worldwide could be documented during the period of 2008-2009 (Cotula, 2012a). The ILC has developed an interactive database called the Land Matrix in order to record land acquisitions worldwide and promote transparency and accountability in land investments[1]. The latest number given (as of 27/08/2015) in the Land Matrix is 34.4 million ha of land acquired through 1,049 documented deals worldwide (ILC, 2015). An exact overview of the number of land deals conducted and the area of land enclosed is difficult to establish as contracts and title deed documents are often unavailable to public scrutiny (Cotula, 2011).

Africa is a popular target for LSLIs, although it is progressively happening in all world regions. The World Bank has estimated that during 2008 and 2009, 203 investors "expressed an interest in 56.6 million ha globally, of which 39.7 million ha were located in Africa" (Schoneveld, 2011, p. 1). Rural poverty has been an evident issue for decades in Sub-Saharan Africa and agricultural policy has been attributed to prolonging the situation. A large prevalence of smallholders characterizes African agriculture, which is often perceived as backwards and unproductive by governments and donor agencies. Many African governments have been looking for ways to modernize the agricultural sector which has provided room for the influx of private investment (Pedersen, 2010; Woodhouse, 2012). Host governments are often motivated by the notion that private investment will contribute to increased development in terms of strengthened infrastructure and modernization of the agricultural sector. As a result, this would represent a 'win-win situation' to the investor and the host country (Da Và, 2011). Nevertheless evidence shows that such developments often fall short of reaching such expectations: "[Land acquisition] is not agricultural development, much less rural development but simply agribusiness development" (GRAIN 2008 in Da Và 2011, p. 19).

According to the Land Matrix, Ethiopia seems to be the African country most affected by land acquisitions with a documented number of 86 deals. According to GRAIN (2012), the country has leased out roughly 32 per cent of its total land area to private investors; Mozambique, Ghana, Nigeria and Tanzania are also countries with large amounts of documented land investments (ILC, 2015). Locher and Sulle (2013) suggest that Tanzania

[1] The reliability of the data provided in the Land Matrix is not totally valid, as pointed out by Locher and Sulle (2013). For instance, the Kapunga case of which this thesis is based on was not found in the Land Matrix database.

might be one of the top ten countries in the world in terms of the amount of land under current foreign investment. Tanzania has a occurrence of natural resources and large areas of what is perceived as idle land; it is "considered to be a country of untapped potential for enhanced food production and economic growth" (Bergius, 2015, p. 4). There is an increasing interest in Tanzanian land and Locher and Sulle (2013) estimate that roughly: 1,000,000 ha of land are covered by foreign land deals, 20,000 ha covered by land investments from national investors and 37,000 ha covered by deals from investors of unknown origin.

1.1 Thesis Objective

Although LSAIs have received mounting criticism for adversely affecting livelihoods in host countries, such investments continue to happen. In Tanzania there have been several examples of LSAIs harming local livelihoods[2], however the Tanzanian government is keen to increase the level of private agricultural investment. Through the Kilimo Kwanza policy and SAGCOT facilitation program extensive areas of land have been identified as suitable for agricultural investment and are offered to private investors (Kaarhus, 2010). One of these areas - the Mbarali cluster located within the Mbarali district, is an area characterized by extensive irrigated rice farming of both large and small-scale (Milder, Hart, & Buck, 2013). The Mbarali cluster is located within a water stressed water basin; irrigated farming has been identified as a main cause of the deteriorating water situation. I will look at the experiences from one of the first large-scale rice plantations established in the 1990s in the Mbarali district - the Kapunga estate.

What is particularly evident in the Kapunga case is how the large-scale operations on the Kapunga estate affect the water situation in the area, especially local people's access to adequate water for domestic use as well as more extensive impacts to the whole water basin. The term *land grabbing* has re-emerged with the recent land rush, representing a critical position underlining that land acquisitions in reality imply powerful actors acquiring control over resources. Moreover, as environmental impacts of LSAIs are becoming increasingly recognized, the term *water grabbing* has also been recurrently mentioned in accounts of

[2] See for instance: Arduino et al. (2012), Johansson (2013) and Nelson, Sulle, and Lekaita (2012)

LSAIs. The use of this term recognizes the inherent impacts posed to aquatic ecosystems and the people depending on the water from these ecosystems.

By examining the case of the Kapunga estate, this study's objective is to assess the impacts LSAIs can pose to livelihoods and ecosystems. Lessons from this case can be useful in the larger debate regarding LSAIs but in particular, to the current policy environment in Tanzania where extensive areas of arable land are made available for private agricultural investment. The study will focus on local experiences – how local residents' lives have been affected by the establishment and presence of a large-scale private estate, and further on regional impacts- specifically how the aquatic ecosystem in the Ruaha River Basin is affected by such large-scale irrigated rice farming. Rulli et al. (2013) point out that although accounts of land grabbing are being increasingly researched and documented, the water grab accompanying LSAIs lacks documentation. This thesis will provide an account of concrete impacts resulting from LSAIs on both livelihoods and ecosystems and thus contribute to the growing body of documented research on land and water issues.

Research Questions

In order to meet this objective, a set of research questions guide my study and analysis. These are formulated as follows:

- **How are local livelihoods in the Kapunga area affected by the Kapunga estate?**
- **What basin-wide implications to ecosystems can be related to LSAIs - such as the Kapunga estate?**

My analysis seeks to explain what happens and how this happens in this particular case study; it uses a theoretical framework largely based on Harvey's theory of *accumulation by dispossession* coupled with elements from *theory of access* and *legal pluralism*. The theoretical framework will examine how structural issues give room for LSAIs to operate in a way that jeopardizes the basis of local livelihoods on ecosystems.

1.2 Thesis Structure

After this introductory chapter, chapter two will give an overview of the research framework utilized in conducting this study. Further, chapter three will give an account of the relevant policy context governing LSAIs in Tanzania. The state is an important actor in facilitating the development of the agricultural sector; the regulative framework provided by the government is fundamental in facilitating LSAIs in the country. Moreover, the government of Tanzania also has to relate to a framework of international policies - such as the human rights convention and accompanying agreements, which are also relevant in the policy context framing LSAIs. This chapter will function as a background for the rest of the thesis.

Chapter four will present the theoretical framework that is later applied to the findings in chapter five, and further guides the analysis in chapter six. These three chapters together compose the main section of this thesis. They examine the Kapunga case by looking at the study area and the history of agriculture there, as well as see how agricultural activities have developed from merely small-scale farming to the additional occurrence of several large-scale rice farms. This development has happened because of favorable agro-ecological conditions in the area coupled with governmental efforts of development in the agricultural sector. The section further moves on to look at how this development has affected local livelihoods. The Kapunga estate was initially established as a state-owned area in the 1990s before being privatized in 2006.

The change in ownership has posed a number of challenges to local livelihoods that are discussed in chapter six. This chapter also looks at the basin-wide impacts of large-scale irrigated agriculture in the study area; it further embarks on a discussion of the role of the state in facilitating such developments which compromise the basis of local livelihoods and ecological conditions in the Ruaha River Basin. Chapter seven will provide a conclusion, it will here become evident that the enclosure of land in the Kapunga area has affected people's access to land and caused further competition over land resources. Deteriorating access to water is the most distinct impact caused by the privatization of the Kapunga estate. On paper, state legislation recognizes the rural population's customary rights to resources; however, a *de facto* priority to formally acquired rights and a weak enforcement of this legislation, makes dispossession of resources possible.

2. Research Framework

Research must be guided by a methodological approach and research method, which need to coincide with the subject of inquiry and the questions to be answered. This research is conducted by using a qualitative research approach. Qualitative research includes the assumption that social reality is constructed by individuals and that a qualitative research approach can capture processes of social construction *(*Boeije, 2009*)*

> Quality refers to the what, how, when, where and why of a thing – its essence and ambience. Qualitative research thus refers to the meanings, concepts, definitions, characteristics, metaphors, symbols and descriptions of things, the extents and distributions of our subject matter. (Berg & Lune, 2012, p. 3)

This study aims to capture people's experiences and learn from their stories and understandings, which coincides with a constructivist approach, an ontological stance often associated with qualitative research. Constructivism emphasizes that human beings have individual understandings of the world and that multiple realities exist (Boeije, 2009). Exploring local narratives on impacts posed by LSAIs, such as the Kapunga estate, is thus beneficial in understanding the complex consequences of such developments. As Berg and Lune put it, "To understand our lives we need qualitative research" (2012, p. 3).

2.1 Research Design

The research design is a plan to guide how the research will be undertaken. Such a plan can be detailed or more flexible but should provide an idea on what form of information and the type of data to be collected, how the data collection will be conducted and then analyzed, and what theories guide the research. Further practical issues such as budgets and research permits should be considered (Berg & Lune, 2012). This research is designed around a case study in order to explore the issues related to LSAIs in more depth. Various definitions have been applied to explain what a case study is and as Berg & Lune note a case study can be applied to many different studies, it is an approach "… capable of examining simple or complex phenomenon, with units of analysis varying from single individuals to large corporations and businesses to world-changing events." (Berg & Lune, 2012, p. 325). A case study requires a deep examination of a case and is thus suitable in studies where personal experiences and historical context are relevant. The case study approach is often applied to *post-facto* (after the event) research rather than in research examining on-going processes

(Berg & Lune, 2012). The case study approach is used in this research to thoroughly explore the impacts and consequences of the establishment and subsequent privatization of a large-scale rice farm and then apply the results from this particular case in a more general discussion around LSAIs and agricultural development policies in a broader context.

This research has been conducted in a flexible and dynamic matter, allowing room for adapting to changes and new information that emerged along the way. The same flexible approach has been used in applying theory. A form of grounded theory has been applied, where the findings have been the starting point for exploring an appropriate theoretical framework, an approach basing the development of theory on the existing empirical findings (Thagaard, 2009). However, the analysis has not embarked on the complex task of developing new theories, but it has drawn on relevant existing theories in order to explain and analyze the results from the research.

2.2 Research Tools

The findings in this research are primarily derived through fieldwork undertaken in Tanzania during the autumn of 2014. However, secondary literature and findings are also playing an important role in supplying information where primary findings had shortcomings or simply benefitted from confirmation from external accounts. Semi-structured interviews were the primary method of data collection used. The semi-structured (or semi-standardized) interview provides some structure to the interview through the use of an interview guide (*See appendix I for interview guides*), while at the same time allows the researcher to deviate from the guide to probe or follow up on interesting information that may emerge. The semi-structured interview gives room for adjusting the language and wording of the questions to be more familiar to informants; this can be of great importance in order to acquire the information the researcher is searching for (Berg & Lune, 2012; Bernard, 2011; Desai & Potter, 2006).

In addition to interviewing informants, an important part of the research was observation. By merely spending time in the study area, observing people's actions and interactions did provide a lot of information and basic understanding about the informant's lives and situations. In this research spending time observing the physical features of the environment was important, especially looking at the paddy fields and the irrigation canals and how the

local people used these canals for different purposes was important. In spending time observing the area and the inhabitants, I also embarked on informal conversations that were useful to my study. Such conversations differ from the semi-structured interviews as they happened without an interview guide and often not on my initiative as a researcher, but rather by villagers who were interested to know about me as an outsider - and thus my research too. Bernard (2011) calls this method of data collection informal interviewing – conversations and encounters that happen during a day in the field and that might be fruitful as they can uncover new topics of interest that might have been overlooked by the researcher.

As I was doing research in a foreign country and unfortunately do not speak Kiswahili, I used an interpreter to conduct most interviews, however, some key informants spoke English and could easily answer my questions directly. Using a translator can be challenging as questions and information has to pass through an extra point in the line of communication, which might to an extent influence the information. "Translators are not simple ciphers without political and social views of their own. They might find it hard not to betray this is in their translations, presenting one side's position with more conviction and elaboration than the other… " (Desai & Potter, 2006, p. 176). On the other hand, as an outsider it can be beneficial to have someone with local understanding adjusting questions and language that in some cases may be considered culturally inappropriate. As I was doing research within a limited timeframe it proved beneficial to have a Tanzanian interpreter accompanying me and his role became more of a research assistant rather than merely a translator as he had the knowledge and experience on for instance who to contact in matters of obtaining research permits and generally on how to gain a foothold in a new and unknown community. A task that would have been considerably more time and resource demanding had I been alone as an outsider.

2.3 Sampling Procedure

The findings in this study are primarily based on my visit to four wards and within these wards about five villages in the Mbarali district. These villages are located in close proximity to the Kapunga estate, but in varying distance from the estate borders, and the residents of these villages have different experiences and relations to the estate and its management.
A nonprobability sampling approach was used to acquire informants in the field.

Nonprobability samples are useful in studies with a limited number of informants. "Most studies of narratives are based on fewer than 50 cases, so every case has to count. This means choosing cases on purpose, not randomly" (Bernard, 2011, p. 143). In order to obtain information and experiences from different actors in the community informants were chosen based on their backgrounds, and location in the different villages as well as on availability. Most informants were therefore broadly classified into three categories: farmers, pastoralists and fishers. However, during interviews it became evident that most pastoralists and fishers were in fact also farmers. This nonprobability sampling approach can also be termed convenience sampling as the sample relies on available and easily accessible informants. Convenience sampling can be a risky approach as it can in some instances entail that informants are chosen primarily on availability rather than background and qualities (Berg & Lune, 2012). However, the sampling approach used in this research had as primary concern to identify informants based on the predetermined categories and secondly on availability.

In addition to the categories of informants mentioned above some key informants and specialized informants were interviewed. Key informants are in this case people with special knowledge that can provide particular information. In planning my research I knew in advance that I wanted to talk to some key informants such as the village chairman and some elderly villagers who could provide more information about the village and the community from a different perspective than general members of the community. Further, what Bernard (2011) calls specialized informants were also interviewed. These informants were chosen based on their profession and specialized competence in issues related to my research, such as a representative from the management team at the Kapunga estate, some representatives from the Rufiji Basin Water Office, a representative at the Ministry of Agriculture and the Ministry of Water.

2.4 Coding and Analysis

Analyzing data acquired through qualitative research does not require a rigid method, as opposed to quantitative data (Berg & Lune, 2012). Analyzing the data entailed identifying patterns and trends in the information collected and apply these patterns together with theory to answer the research questions, similar to what Berg and Lune (2012) calls 'content analysis'. In this research the approach used was based on the set of research questions that

were also used to guide the interviews. The transcribed interviews were color-coded based on the information relevant to the different research questions. This made it easier to find the evident patterns in the information, which was useful for the analysis. Some transcription was done from day to day, while most of the analysis was undertaken after the fieldwork. However, spending some time at the end of the day to go through some of the data proved valuable as it helped me remember more information that could be useful for the next interview as well as challenging some of the inherent assumptions I as a researcher had. For instance, I expected all informants to say that they were extremely unhappy with the presence of the investor, but some informants did in fact not express this view, rather they didn't have any particular opinion about the investor and its activities. Nevertheless these experiences were also valuable information that told me that the farther away from Kapunga estate the informants lived, the less of an opinion they had about the investor and the estate management.

2.5 Challenges and Limitations

One of the major challenges of this research was identifying an appropriate case study. The research was initially planned with a different case in mind, however in the last minute it became clear that the initial case study would not be as relevant. This last minute adjustment left little time to gather background information. Although the research ended up with a more relevant and interesting case study, having more time in advance to do background research on the final case could have made the field work more efficient and maybe even provided better data.

Time to plan and execute fieldwork is important, and being able to spend more time in the field could have been beneficial to the research particularly having more time to spend on observation could have provided interesting information. I had to leave the study area just before the rainy season began, which prohibited me from observing the changes from the dry season to the wet season. It could have been interesting to observe cultivation activities in action, and further being able to visit the area during harvest would also provide first-hand information useful to the research. Moreover several informants mentioned how the water situation was different in the wet and the dry season, fieldwork in both seasons could have given a more detailed account on the water situation facing the people in the Kapunga area.

Further, some factors might have influenced the information provided by informants. First, as a researcher one is always an outsider and the information given to an outsider will most probably differ from the information given to someone the informant has established trust with. Moreover, I was not only an outsider I was also a foreigner and a *Mzungu* (a white person). Some informants had never spoken to a Mzungu before and some seemed affected by this, both positively and negatively. An interview represents a social interaction between the researcher and the informant, and the appearance and presence of the researcher may affect the informants' behavior. "This applies to the researchers personal and external characteristics such as gender, age and social status" (Thagaard, 2009, p. 103). Second, during several of the interviews there were more people present than I had wished. The best situation would be if during the interviews it was only the informant, the translator and myself. However, while traveling around the area we always had a local guide with us. The guide was useful in making arrangements with informants, however having more people than necessary attending the interviews might affect the information provided by the informant. Sometimes interviews were done outside, and people from around would come and listen in and in some instances even comment on the questions and answers provided. In some cases this proved quite interesting, and as most of the issues I talked to informants about were not of a sensitive matter, some of these encounters could turn into curious discussions with more than one informant.

Lastly, researching LSLIs does present certain challenges as information on land investments is often not publicly available (Cotula, 2011), an issue also affecting this research. As information about the contract between the investor and the government is unavailable, as well as other relevant documents regarding the privatization of the Kapunga estate, a lot of relevant information is left in the dark. Accessing the contract would for instance have provided an insight into issues such as the obligations of the investor to provide water or other services to Kapunga village. The available information on this issue is currently based on claims from different accounts.

2.6 Ethical Considerations

The type of research conducted in this study involves and requires contact between the researcher and informant and in this relationship the researcher has a responsibility to conduct the research in line with ethical precautions. An overarching ethical principle is that the information provided by informants should not in any account cause harm to the informant (Berg & Lune, 2012; Thagaard, 2009). Informed consent is thus a main foundation for research based on informants or participants. "Informed consent means the knowing consent of individuals to participate as an exercise of their choice, free from any element of fraud, deceit, duress or similar unfair inducement or manipulation" (Berg & Lune, 2012, p. 90).

During fieldwork many people were interested in my research topic, and it was widely known what the purpose of my visit to the area was. Every interview started with a clarification of who I was, where I came from and how the information gathered would be used. It was important to me as the researcher to emphasize that I was not from the government or from an aid-organization; my sole purpose was to listen and learn from the informants. Several informants were interested in knowing what would come out of this research, if by telling me about their problems they would be solved. In answering this question, which I was regularly asked, I was very clear on the fact that I was not in the position to solve their problems. The only thing I could offer was to write about their situation and thus make the information accessible to the public. All informants accepted this, but one, who said that researchers had been there before and nothing had changed, so he did not see why he should spend his time providing me with information. Confidentiality is another fundamental principle in protecting informants from any harm posed by participating in research. This principle entails that all information provided by informants must be treated with confidentiality. This principle entails that all informants must be anonymized so that the information provided cannot be traced back to the informant (Thagaard, 2009). Many of my informants started by giving me their names as a greeting and introduction to the interview. However, I ensured them that their names would not be written down or used in the research. This principle is more difficult to follow in terms of key- and specialized informants, who are chosen on account of their position or status. Although names are not given when referring to these informants, information such as which organization they represent or the position within the village is

provided in order to legitimize the information. However, these informants knew that they were speaking as representatives from an organization or based on their position.

3. Background: Agriculture and Policy Context in Tanzania

LSAIs are not made in a political vacuum, there are a number of policies and legislations in host countries as well as regulations on international and regional level that govern such investments. This chapter will provide an overview of the policy context governing agricultural development in Tanzania. Starting with looking at the central position the agricultural sector holds in the country and a brief historical account of agricultural development since colonial times to present day. Further the current policy context will be explored by looking at the land reform introduced in the late 1990s to early 2000s, which are the legal basis for land rights in Tanzania. Water management will also be explored, as the legal structure governing water management is highly relevant in the discussion of rights to resources in the Kapunga area and the country as a whole. Further, the most recent agricultural policies shaping the current context within Tanzania will be discussed with a focus on the SAGCOT initiative. Finally the chapter will address some social standards and alternatives such as the human rights, with an emphasis on the human right to food and water as two elements in the human rights framework that often are compromised in processes of land acquisitions and are likewise highly relevant in the Kapunga case. In this section food security and food sovereignty will be briefly explored as concepts that can add some nuance to discussions of agricultural development policies.

Tanzania is a nation built largely on agriculture. 74 per cent of the total work force is involved in agricultural activities, 72 per cent of the population is rural and agriculture contributes to 30 per cent of total GDP (FAO, 2014). Most agriculture is done small-scale with an average farm size of 0.2 -2.0 ha per household. 70 per cent of farming activities is done with the use of hand hoes, 20 per cent by ox-ploughs and only 10 per cent with tractors (Baha & Sulle, 2013). The country's production potential is high with climatic zones favoring a range of crop varieties, a relative abundance of water and fertile soils but agricultural activities are vulnerable to climatic variations. The agro-biotic variety includes 47 recorded commonly cultivated plant species including cereals, legumes, oil crops, roots and tuber, fiber crops, beverage crops (coffee, tea, and cocoa) and other crops (i.e. sugar cane, tobacco, pyrethrum and cashew nut) (Byers, 2012).

Tanzania is self-sufficient in food production, however food deficits occur on local household levels (WFP, 2015a). There is also alarmingly high levels of food insecurity, according to

Haug and Hella (2013), citing a 2012 World Bank study revealing that 34 per cent of the Tanzanian population was unable to meet dietary energy requirements. The government has had to import food during dry years, but has been able to avoid the occurrence of famines and the need of food relief, in times when this has been occurring in neighboring countries (Cooksey, 2012; Haug & Hella, 2013) Malnutrition and undernourishment is still a serious problem, Tanzania's National Nutrition survey of 2015 showed that 35 per cent of children under five were stunted (WFP, 2015a). The Millennium Development Goal 1 of halving the population suffering from hunger and poverty by 2015 has been declared not achievable by the government of Tanzania (Haug & Hella, 2013). Despite an overall high economic growth (7 per cent) in the latest years, reduction in poverty and hunger has not followed this trend, especially in rural areas. This is evident when looking at the modest growth rates (about 4 per cent in the period 2001 - 2010) in the agricultural sector compared to the overall growth of the economy (Haug & Hella, 2013). A challenge for the Tanzanian agricultural sector is to utilize its agricultural potential for poverty reduction and growth "without compromising food security or the rights of smallholders and pastoralists" (Kaarhus, 2010, p. 29). Despite emphasis on the necessity of growth in the agricultural sector going back decades, reflected in poverty reduction strategies and agricultural policies, there is still a low-factor productivity in the sector – "reflected in high levels of food and income poverty" (Cooksey, 2012, p. 5).

During colonization Tanzanian agriculture was gradually introduced to the global commodity market (Cooksey, 2012). The colonial powers saw the agricultural potential of the region and regarded their colonies as suppliers of raw materials for the European and North-American markets. The colonial governments decided what crops should be grown based on demands in the global commercial market. Popular crops were Sisal, Cotton, Tea and Coffee (Mapolu, 1990). After independence in 1961 the Tanzanian state focused largely on rural development. At the time, 95 per cent of the population was rural and the state sought to maintain an export-led agricultural production by making rural communities' agricultural production more effective. This was done by following advise from the World Bank of so-called improvement and transformational approaches. These approaches aimed to increase output within the existing households through extension services as well as transforming agriculture by resettling villagers who wanted to engage in modernized farming into schemes, cultivating under supervision and direction of officials. These approaches emphasized cash crops for export and moved away from producing food crops, which eventually made the state dependent on food imports. By mid 1960s it was evident that these approaches did not

deliverer the expected benefits. Many farmers withdrew from these transformationalist farming schemes as they felt alienated from both the control of the productive resources and the outputs and solely functioned as supply of labor (Mapolu, 1990).

Julius K. Nyerere, Tanzania's first president after independence in 1961 was highly devoted to rural development. His primary concerns were addressing problems of underdevelopment in agriculture and the fact that the rural population was among the poorest in the country. Nyerere was inspired by socialist ideologies and introduced the *Ujamaa* – African socialism. In 1967 Nyerere launched the Arusha declaration, which established the guidelines and economic blue print of Ujamaa. Central in the Arusha Declaration was the acknowledgement of the important role of agriculture in the country's development and thus the need for improvements in the agricultural sector. A general nationalization of the economy and the major means of production was another key message of the declaration (Mhando, 2011). This initiated the establishment of several state owned enterprises such as large state-owned farms and plantations.

The Arusha declaration also launched the establishment of Ujamaa-villages, a program where rural peasants scattered over large remote areas were required to move into more centralized villages. The Ujamaa villages were supposed to function as hubs for agricultural production and agricultural co-operatives. This process has later been criticized for reinforcing a class-society where the peasantry was controlled by state elites, as noted by Mapolu (1990): "Villagization marked the apex of the bourgeoisies attempt to put rural production under control" (Section: Failure of villagization projects, Para 8). The Ujamaa villagization program effectively rendered customary rights to land and water resources as old clan systems were dissolved and people settled into constructed villages (Sokile, Kashaigili, & Kadigi, 2003).

Despite Nyereres efforts to enhance the agricultural sector and stimulate growth in rural areas, results were not looking promising. Villagization did not deliver the anticipated outcome, instead of the expected increased agricultural crop output, food imports rose and both subsistence food and export production declined during the period of 1972-1980. The late 1970s saw an emerging economic crisis spurred by both external factors such as fluctuating prices on the global market, and internal factors such as struggles between bureaucratic elites seeking to advance own interests and peasant populations wanting to

maintain a traditional lifestyle (Mhando, 2011). The economic downturn led to increasing pressure from external actors to initiate economic liberal reforms, but Nyerere did not want to give in to outside pressure, as he believed it would compromise Tanzania's national sovereignty. Nyerere resigned as president in 1985 and the change in leadership finally opened up for increased international influence. Structural Adjustment Programs (SAPs) were adopted as prescribed by the World Bank and IMF (Hyden & Karlstrom, 1993; Wobst, 2001). A period of market liberalization with increasing emphasis on the role of the private sector and a subsequent withdrawal of the state's role in the agricultural sector originated in this period and is still highly relevant as will be further evident in sections below.

3.1 Current Policy Context

Land Management

As a result of a growing number of conflicts over land and the lack of clearly defined land rights the government of Tanzania passed a land reform consisting of the Land Act and the Village Land Act in 1999-2000. The aim of the reform was to increase tenure security by establishing a clear framework for land rights, and to facilitate a market for land (Pedersen, 2010; Sulle & Nelson, 2009). The Land Act proclaims the Tanzanian president as the trustee of all land within the nation. The Act established three categories of land: reserved land, village land and general land. Reserved land is protected land such as national parks, game reserves, forest reserves, marine parks or marine reserves. This category makes up about 28 per cent of total Tanzanian land. Village land is land within the demarcated boundary of a village. Tanzania has over 10.000 formally recognized villages. And this category makes up almost 70 per cent of Tanzanian land (Tenga & Kironde, 2012).The legal framework of village land management is provided within the Village Land Act. Village land is vested under the authority of the village councils responsible for the management of this land. As management is vested within the village it is managed under customary arrangements and institutions and thus give customary land rights a formal recognition in state regulations (Sulle & Nelson, 2009). General land is all land that does not fall in under the two former categories. It only makes up about 2 per cent of total land area in Tanzania and consist primarily of urban areas. General land is under the authority of the Commissioner of Lands, and is in principle the only land available for acquisition by private investors (Sulle & Nelson, 2009; Tenga & Kironde, 2012).

Although these three categories seem quite clear there are exceptions making the implementation of the land reform more complex. For instance, as the president is the trustee of all land within the country, the president can expropriate preserved or village land and convert it to general land - and thus make it available for acquisition - if it can be argued that this is to the benefit of the nation. Therefore village land can for instance be expropriated for development projects, such as the establishment of large-scale farms, argued to contribute to economic growth. Within village land there are conditions of land tenure that must be met, for instance land that is not permanently occupied or under cultivation may be considered idle and thus expropriated by the government and transformed to general land. Although such land can be distinguished as idle by the state it may be important for local livelihoods for instance for hunting and gathering, as pasture for livestock, used for seasonal cultivation or set aside for future generations (Anseeuw et al., 2012; Sulle & Nelson, 2009). Prior to expropriation of such land it is required that all affected citizens must be given an opportunity to put forward their views on the land transfer. These should be taken into account and included in a report of the land transfer prepared by the commissioner of lands. Further, affected individuals shall receive compensation if they have legitimate rights to the expropriated land; compensation is required to be given within six months after the land transfer (CHRAGG, 2012).

Although the land reform established a comprehensive set of land legislation, there have been evident shortcomings in its implementation. Pedersen (2010) addresses challenges of implementation, particularly pointing to the lack of a proper implementation plan, which has led to slow implementation of the reforms especially in rural areas. It took five years from the passing of the land acts, to the 'strategic plan for the implementation of land laws' (SPILL) was finalized in 2005. However, the implementation plan has been criticized for emphasizing economic growth and increased productivity and profitability of the agricultural sector over smallholders' development, focusing on commercialization of land. The plan clearly mentions smallholders and pastoralists as unproductive and not contributing to growth in the agricultural sector. "Such views, the critics fear, could lead to further expropriation of land for investment purposes" (Odgaard 2006 in Pedersen 2010, p.8). This notion of the contribution of smallholders and pastoralists to national development as insignificant rationalizes the process of expropriating village land to general land for the purpose of re-distribution to private investors (Sulle & Nelson, 2009).

Water Management

Similar to land management, water management in Tanzania consist of a duality of statutory ordinances and customary laws and informal institutions, and just as with land, the president is the trustee of all water resources within the country and it is thus the responsibility of the president that these are managed responsibly to the benefit of the Tanzanian citizens (URT, 2009). This was acknowledged already in the Water Ordinance of 1948 passed by the British Colonial Rule, which recognized the rights of native civilians to "obstruct, abstract, or use water in accordance with their native law and custom" and define rights and ownership of the use of water as well as establishing institutions for water supply in urban and rural areas (Liheluka, 2014, p. 9). The current Water Resources Management Act (WRMA) of 2009 recognized customary rights as "… in every respect of equal status and effect to a granted right…" (URT, 2009). However, there is still an evident imbalance in the actual recognition of customary arrangements and statutory rights (Sokile et al., 2003) *(This will be further discussed in chapter 4).*

The Water Utilization (Control and Regulation) Act of 1974 was until 2009 the supreme law on water management in Tanzania regulating rivers, streams and internal lakes. The law declared all water bodies to be of the property of the United Republic of Tanzania (Maganga et al. 2004). The River Basin Management Approach, an amendment to the Water Utilization Act of 1974 passed in 1981, later divided the country into nine water basins and established the foundation for water management on basin level, with governing basin water boards (BWB) and basin water offices (BWO) (Sokile et al., 2003). Delineating water management along hydrologic boundaries is a central concept of Integrated Water Resources Management (IWRM) introduced to Tanzania in the 1990s by foreign donors (Van Koppen & Tarimo, 2014).

IWRM was later adopted in the National Water Policy (NAWAPO) of 2002 and the subsequent WRMA of 2009 by emphasizing key elements of IWRM including decentralization of water management, cross-sectoral management of water resources, and by introducing water user fees in line with the principle of 'water as an economic good', one of a set of principles underlining the IWRM discourse[3]. The objective of NAWAPO is to

[3] The Dublin principles were formulated at the International Conference on Water and the Environment in Dublin in 1992. The four principles are:

"develop a comprehensive framework for promoting the optimal, sustainable and equitable development and use of water resources for the benefit of all Tanzanians, based on a clear set of guiding principles" (URT, 2002). Further a number of more specific objectives are mentioned in the policy amongst other, to develop equal and fair procedures in access and allocation of water resources, ensuring that social and productive sectors as well as the environment receive adequate share of water, to improve management and conservation of wetlands, to raise public awareness and broaden stakeholder participation in the planning and management of water resources, to mention some of the most relevant objectives.

The WRMA passed in 2009, provide an institutional and legal framework for sustainable management and development of water resources. Amongst other things, the Act confirms that water for domestic use should be of first priority in water allocation, environmental flow second and water for economic development third priority. The Act also emphasizes that water shall be,

> … used, developed, conserved, managed and controlled in ways which take into account the following fundamental principles, including – a) meeting basic human needs of present and future generations; b) promoting equitable access to water and the principle that water is essential for life and that safe drinking water is basic human right … (URT, 2009)

According to the WRMA all water users that abstract or uses water from surface or groundwater resources should derive a formal water user permit in accordance with the WRMA. Permits are issued by the respective BWB. On local levels these can be acquired through Water User Associations (WUAs), which according to the act has the mandate to manage water use on village and ward level (Kramm & Wirkus, 2010). The establishment of WUAs is supposed to ensure empowerment and participation of local level water users by acting as mediators in conflicts and facilitating for participation of local users in water governance. The WUAs should participate in the preparation of water utilization plans,

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1) Fresh water is finite and considered a vulnerable resource, which is essential to sustain life, development and the environment.

2) Water development and management should be based on a participatory approach, involving users, planners and policy-makers at all levels.

3) Women play a central part in the provision, management and safeguarding of water.

4) Water has an economic value in all its competing uses and should be recognized as an economic good.

conservation and protection of water sources and catchment areas, enforcement of the law and implementation of conditions of water rights, and control of pollution. Further WUAs should be represented in BWBs and catchment committees (URT, 2002).

Allocation of water user rights and the governance of these, including collection of fees, monitoring of water abstraction, pollution control and resolution of conflicts among users are the responsibility of the basin level management, through the BWB and BWO. Further, district councils are responsible for planning and development of water resources in accordance with basin plans, protection and conservation of natural resources in villages and wards, establishment of by-laws regarding water resources and conflict resolution in accordance with established laws and regulations. In addition the district councils make assessments of water demands of their respective districts, and participate fully in the preparation of basin plans through representation in the BWB (URT, 2002).

There have been some evident shortcomings in Tanzanian water management. It is particularly challenging to implement an IWRM framework in an environment where customary arrangements are prevalent as is the case in many parts of rural Tanzania. According to Sokile, Mwaruvanda, and Van Koppen (2005) there is no actual mechanism that integrate formal and informal rights. Especially implementing a system for payment for water usage in line with the IWRM principle of recognizing the economic value of water. Communities who have historically accessed water for free seem to have a hard time accepting that access to water is a service that requires payment. The fact that a large number of water users, both domestic and smallholder irrigators do not have a formal water use permit also makes planning and monitoring of water use challenging (URT, 2012).

Further, implementation of policies and enforcement of legislation is challenged by the lack of financial resources. In an interview with an officer at the Rufiji Basin Water Office (RBWO), lack of financial resources were mentioned as one of the main challenges for the office and was stated as a reason for the lack of sufficient data on water flow, water quality and monitoring of water abstractions (Interview 47). Sokile et al. criticizes Tanzanian water management pointing to the lack of institutional coherence. “The institutions that are involved in water management are loosely connected and lack basic coordination and are often at the periphery of the water management agenda divorced from the water management programs.” And within this messy institutional framework the “unique role of the informal,

community-based institutions" are not adequately integrated (2003, p. 1018). Adding to this is the issue of institutions having overlapping responsibilities and mandates, for example in the Rufiji basin the Rufiji Basin Development Authority (RUBADA) - a government organization working to promote development projects in the Rufiji basin within the sectors of energy, agriculture, fisheries, forestry, tourism, mining, industry, transport and environment (RUBADA, 2015) - has overlapping mandates and at times conflicting purpose with the RBWO. Such inter-institutional conflicts can cause ineffectiveness and gaps in management (Sokile et al., 2003). On lower level, WUAs has not proven to achieve the desired outcomes, and there is still a major number of water users in rural Tanzania that are not part of WUAs and such are left out of participating in decisions of water management. Moreover, a clear lack of intra-sectorial coordination is an issue leading to competition among different water users; especially evident in the Ruaha river basin is coordination between irrigators, pastoralists, and domestic users as well as hydropower generation and environmental flow (RBWO, 2013).

3.3 Agricultural Policies

A number of development policies, strategies and programs addressing Tanzania's agricultural sector have been launched over the last decades (Leyaro & Morrissey, 2013). A common strand in these has been an emphasis on increasing productivity through modernization and commercialization of the sector. This was emphasized in the SAPs undertaken in the 1980s - initiating a period of economic liberalization still persisting. In the late 1990s, the National Strategy for Growth and Reduction of Poverty (MKUKUTA) was launched as a poverty reduction strategy emphasizing the same notion of rationalization of agriculture as paramount to poverty reduction (Cooksey, 2012; Coppolillo, Demment, Mbano, Bergin, & Forrest, 2006). Another relevant development in the 1990s was the National Investment Promotion Policy (1996) and the passing of the Tanzania Investment Act (1997), which opened up for foreign and private investment in nearly all sectors. The investment act provides a legal framework for private actors facilitating benefits of private investment such as guarantees against state expropriation amongst other things. The Act also established the Tanzania Investment Center (TIC) with the intention of assisting investors with information on issues of for instance land acquisitions and taxes (OECD, 2013). TIC has

amongst others established a land bank comprising over 2.5 million ha of land available for investors to apply for (Sulle & Nelson, 2009).

Similar emphasis on private sector involvement was apparent in the Agricultural Sector Development Strategy (ASDS), the following Agricultural Sector Development Program (ASDP) and more recently in the *Kilimo Kwanza* (Agriculture First) policy. Throughout all of these policies and strategy papers, there has been a somewhat varying emphasis on the role of the state's role in the process. In the ASDP the state was supposed to have a leading role in implementation, for instance through provision of public goods, whereas donors would contribute as funders (Cooksey, 2013). In the more recent Kilimo Kwanza, launched in 2009, the private sector is given a leading role as implementers while the state shall act as facilitator by creating a "conducive environment for investors as well as to coordinate and to show the available opportunities for agricultural investments" (R. Mbunda, 2011). For instance through identifying land appropriate for investment, which in large is done through a process of converting village land to general land. According to (Baha & Sulle, 2013) there are plans within Kilimo Kwanza to increase the total area of general land from about 2 per cent to 20 per cent. Kilimo Kwanza was formed by the Tanzania Business Council, which is chaired by President Jakaya M. Kikwete. It was described as Tanzania's vehicle to a green revolution (TNBC, 2009) recognizing that former strategies to develop the agricultural sector had not been successful. Kilimo Kwanza set an ambitious target of 10 per cent economic growth in the agricultural sector, as the previous years growth rate of around 4 per cent have not been sufficient to deal with the widespread poverty in the country (R. Mbunda, 2011).

SAGCOT

The first large initiative launched under Kilimo Kwanza was the Southern Agricultural Growth Corridor (SAGCOT) a public private partnership (PPP), established in 2010, consisting of a range of partners from private and public sector such as the agribusiness companies Yara, Monsanto and Bayer, as well as other MNCs such as Unilever, Nestle and Cargill, donor organizations such as USAid, NORAD and the government of Tanzania, to mention a few of the to date 53 partners. Over half of the SAGCOT partners are from the private sector. The initiative was born at the World Economic Forum (WEF) on Africa in 2010 and came from a broader emphasis on the establishment of agricultural growth corridors

in Africa driven by international actors. The fertilizer company Yara issued the initial proposal, which testifies to an extensive global trend emphasizing private sector-led agricultural investments (Twomey, Schiavoni, & Mongula, 2015).

SAGCOT's stated objective is "to foster inclusive, commercially successful agribusinesses that will benefit the region's small-scale farmers, and in so doing, improve food security, reduce rural poverty and ensure environmental sustainability" (Twomey et al., 2015, p. 39) the approach to achieve this objective involves clusters of land defined as "geographic concentrations of interconnected companies, specialized suppliers, service providers, and associated institutions" (SAGCOT, 2011b, p. 3). The growth corridor presented in SAGCOT covers seven regions, making up around one third of Tanzania's total land area, with high agricultural potential, and relatively good existing infrastructure (Twomey et al., 2015). It has been suggested that around 20 per cent of Tanzanian land can be made available for agribusiness as large areas of land is considered underutilized or unoccupied (Tenga & Kironde, 2012), realizing this will entail converting large areas of village land to general land.

The stated focus on smallholder's development has been criticized, pointing to a clear emphasis on large-scale development within SAGCOT plans. As Twomey et al (2015) point out; small-scale farmers are regarded as potential components of large-scale commercial schemes rather than being the primary targets of investments. There is also an apparent execution of a top-down approach within the SAGCOT scheme (Bergius, 2014). Similar to previous agricultural policies, the language used to describe small-scale agriculture within SAGCOT is characterized by a notion of inferiority compared to large-scale schemes. And as mentioned above, a notion of large areas of land available for private investment is being promoted although this land is in fact largely village land (SAGCOT, 2011b; Tenga & Kironde, 2012). Further, the SAGCOT 'greenprint', a plan to introduce sustainable agricultural methods and support green growth, has been criticized as 'green washing'(Bergius, 2014). The general concept converting more land to commercial agricultural production entails compromising ecosystems in ways that is difficult to argue as environmentally sustainable. Changes in land use and an increase of cultivated land has already been identified as contributing to degrading ecosystems in Tanzania *(see chapter 6.)* The 'greenprint' does propose introducing sustainable agricultural methods such as

conservation farming, precision agriculture, sustainable rice intensification and (certified) organic agriculture, however the previous success of such projects in Tanzania has not been convincing. Giving reason to question whether the motivation behind SAGCOTs 'greenprint' is merely to gain external legitimacy or to actually allocate resources to strengthen efforts of sustainable agriculture to benefit local communities and ecosystems (Bergius, 2014).

International Actors and Initiatives

International actors have been active in promoting the liberalization process in Tanzania since the 1980s. Recent international and regional agreements and initiatives that have contributed to the drive towards increased privatization in the agricultural sector are for instance the Comprehensive Africa Agriculture Development Programme (CAADP), an initiative by the New Partnership for African Development (NEPAD) and the African Union to create a development initiative for Africa by Africans, as opposed to previous externally crafted programs; The New Alliance for Food Security and Nutrition (NAFSN) a G8-led project, endorsing CAADP, facilitating for new investments and regional trade agreements arranging for multinational corporations to take a role in the development discourse (Cooksey, 2013); the mentioned WEF, and moreover, the WTO framework is facilitating for foreign private land acquisition and Bilateral Investment Treaties (BITs) have as well been on a rise in later years as a facilitation mechanism for foreign LSLIs (Cotula, 2012b, 2013).

3. 4 Social Standards and Alternatives

LSLIs have in several instances led to human rights violations (see for instance Cotula 2014). Human rights are designed to protect fundamental needs essential to human dignity. They are universal and thus apply to all human beings under international law and national constitutions (Cotula, 2014). States are obliged to adhere to the universal declaration of human rights (UDHR) and national policies and legislation should be in compliance of the UDHR. The human rights can thus be used as a framework for exploring problems related to dispossession and displacement arising from LSLIs. Issues of human rights violations related to LSLIs often evolve around loss of access to land and resources although a self-standing human right to land in general terms has not been recognized. Recent suggestions on

acknowledging the right to land for small-scale farmers and landless people within the UN Declaration of Rights of Peasants are however being deliberated (Golay & Biglino, 2013). However, a number of human rights are already relevant to the protection of land rights and rights to productive resources, and it is widely accepted that access to land and protection of people's rights to land is necessary to fulfill several human rights (Cotula, 2014).

The former UN special rapporteur on the right to food Olivier de Schutter composed a set of minimum principles and measures to guide land investments in order to address human rights challenges of LSLIs, avoid human rights violations and ensure that such investments are beneficial to all parties involved. The list of 11 principles present a set of minimum obligations that states must meet based on human rights instruments and should be taken into account by both governments and investors, as well as the home state of private investors, in order to ensure that LSLIs are executed responsibly and ensure a favorable outcome for all affected actors particularly local populations. The principles are based on existing requirements by international human rights instruments and should be helpful in guiding formulation of policies governing LSLIs (De Schutter, 2009, 2011) *(See Appendix 2 for the set of 11 principles).*

Accepting these principles in itself is not sufficient to ensure that land acquisitions are conducted in a just and mutually beneficial manner, a point that has also been recognized by De Schutter. The principles represent a set of minimum standards to be adopted, De Schutter further emphasizes that in order for LSAIs to be responsibly executed they must involve local stakeholders and take into account the concerns and opinions of local populations, civil society groups and farmers organizations (Deng et al., 2010)

The Right to Food

The right to food is one of the particular human rights that frequently have been compromised and violated due to processes of dispossession and is of great relevance in discussions of access to land (Wisborg, 2013). Rural people's ability to feed themselves and their families is highly dependent on access to land, not only for cultivation but also access to forests and bushland for hunting and gathering food, grazing and for livestock or water sources for fishing. Land that is not under permanent cultivation can easily be labeled idle and thus rendered suitable for commodification (Cotula, 2014). The right to food was first recognized

in the UDHR under the International Covenant of Economic, Social and Cultural Rights (ICESCR) article 11, "The States Parties to the present Covenant recognize the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing and housing, and to the continuous improvement of living conditions…" (ICESCR, 1976).

The FAO requested a better definition of the right to food in 1996 and the Right to Food guidelines was established in 2002 to strengthen commitments in the context of national food security and refine the right to food. Emphasizing that states must ensure national food security by fulfilling human rights obligations under international law. States party to the Covenant on Economic Social and Cultural rights "have the obligation to respect, promote and protect and to take appropriate steps to achieve progressively the full realization of the right to adequate food" (FAO, 2004). The FAO guidelines entail a range of aspects of relevance to states to fulfill the right to adequate food and ensure national food security, however, the most comprehensive one is guideline number 8: 'Access to resources and assets'. Guideline 8 covers amongst others, the importance of access to land and water for safeguarding food security. In relation to access to land, states must establish legislation protecting the full and equal right to own land and promote sustainable use of land areas. Access to water in sufficient quantity and quality is emphasized as fundamental to life and health and sustainable use and allocation amongst users should be prioritized by states.

Further, guideline 8 addresses the importance of sustainable management of resources and the importance of national policies, legal instruments and supporting mechanisms that promote sustainable food production in line with the carrying capacity of ecosystems and conducted with a long-term perspective (FAO, 2004). CESCR later refined the definition of the right to food in its general comment 12 (1999) as: "The right to adequate food is realized when every man, woman and child, alone or in a community with others, has physical and economic access at all times to adequate food or means for its production" declaring that the right to food is ensured through the provision of access to productive resources such as land, water, seeds, forests, fisheries etc. "Former UN Special Rapporteur on the Right to Food Olivier De Schutter emphasizes that the right to food is not about a right to be fed, or a right to minimum portion of calories, but rather a *right to feed oneself"*, which can be done either through having access to productive resources to grow one's own food, or through having the resources to buy food (De Schutter 2014 in Twomey 2015, p. 17).

The right to food has been incorporated in several national constitutions during the last decades, and the guidelines to the right to food, although voluntary, promote a strong political commitment to implementation (Golay & Biglino, 2013). Tanzania has not recognized the right to food in its constitution, but has ratified the CESCR, recognizing that the state has an obligation to respect, protect and fulfill the right to food for its population (Haug & Rauan, 2001). Within this obligation the state should ensure that it does not compromise this right towards its people, that enterprises do not deprive individuals of their access to adequate food, and that the state should facilitate for peoples ability to provide adequate food for instance through providing access to productive resources such as land and water (Golay & Biglino, 2013). Nevertheless, the legal framework of the right to food rests on voluntary guidelines and thus does not represent a solid legal value (Cotula, 2012b), the fact that the Tanzanian state has not adopted the to food in its national policies implies a weak sense of obligation towards the right to food.

Food Security

Food security is intimately linked to the human right to food, although food security is a different concept. As Twomey et al. (2015) puts it, food security lacks the legal framework supporting the human right to food approach. However, it is useful to briefly explore the concept, as it is essential when talking about people's livelihoods. Food security was defined in 1996 by the World Food Summit in Rome,

> Food security, at the individual, household, national, regional and global levels is achieved when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. (FAO, 1996)

Food security is founded on four key factors, namely: *availability* of food, *access* to food, *utilization* of food and *stability* of food provision, each with a set of associated indicators (FAO, 2015).

Food security is used in argumentation in support of land acquisitions by foreign and private actors, as well as against such investments. States that are struggling to be self-sufficient in food production due to for instance declining natural resources – such as water – have

increasingly outsourced own national food production by acquiring large areas of farmland in other countries. The gulf states, China and India are examples of states acquiring large areas of land in other countries to contribute to their own national food security (Deng et al., 2010). On the other hand there is a clear correlation between losing access to land and water and decline in food security for local people in host countries. The need to strengthen food security is also used as an argument to increase large-scale commercial farming in order to meet a growing population globally, while on the other hand this exact emphasis is said to threaten food security on household level among rural smallholders. However, food insecurity is as noted by Sen not necessarily about lack of food, rather it is about lack of access to food (Sen, 2001). On a global level there is not a shortage of food, however it is the distribution of food that is skewed, for instance, a large portion of the people experiencing food insecurity in the world are in fact food producers themselves (Aabø & Kring, 2012; WFP, 2015b). The situation is similar in Tanzania. A study by the World Food Program shows that people with livelihoods based on agricultural activities were more likely to be food insecure than non-agricultural based livelihoods. In 2010-2011 approximately 730,000 households amounting to 8.3 per cent of all households in Tanzania were food insecure[4], showing a slight decrease from 9.8 per cent in 2008-09 (WFP, 2012). This situation indicates that policy choices are of great importance in ensuring food security, particularly securing sustainable management of productive resources. State governments have a responsibility to ensure that people's right to food are not compromised, thus ensuring that food security is not threatened. In a political context where international and private actors have a large influence on the national policy context this can be challenging.

Food Sovereignty

Food sovereignty was a concept introduced by La Via Campensina at the World Food Summit in 1996; it was an effort to refine the definition of food security existing at the time. La Via Campensina saw a need to place emphasis on social control in the food systems, which at the time was seemingly avoided in the discourse of food security. Food sovereignty addressed the increasing corporate control of the food system, a trend that was perceived as

[4] Using the indicator 'poor dietary intake' which identifies those households that are lacking both sufficient calorie quantity and that are not consuming enough types of food (WFP, 2012).

detrimental to food security. Concerns about the consequences of structural adjustment, liberalization policies and the shift from local food production and consumption to export oriented food production (Wittman, 2011) gave rise to the notion that food sovereignty should be a precondition to ensure food security:

> Food sovereignty is the right of each nation to maintain and develop its own capacity to produce its basic foods respecting cultural and productive diversity. We have the right to produce our own food in our own territory. Food sovereignty is a precondition to genuine food security (Via Campesina 1996 in Patel 2009, p. 665).

The definition of food sovereignty has evolved and changed over time, and although it can be framed using slightly varying language, the core concept is undoubtedly one that involves empowering the grassroots through addressing people's ownership and rights to resources and means of production as well as structural issues of democracy and governance (Patel, 2009). Food sovereignty can be seen as a "critical alternative to the concept of food security" (Wittman, 2011, p. 87) emphasizing local populations control over productive resources as well as local markets, culture and modes of production. Whereas food security address the situation arising from lack of access to food, the food sovereignty approach address the underlying issues causing this problem, namely deteriorating property rights and access to resources, moreover a lack of control of systems of food production and consumption (Wittman, 2011). The right to food, food security and food sovereignty thus largely coincides, but the UN-based right to food approach as well as food security discourse has been criticized for failing to recognize the structural issues framing the individual's access to food. Food sovereignty inherently have a stronger bottom-up approach, placing food producers and peasant populations at the center, in contrast to liberalized policies and strategies promoted by international and state actors (Patel, 2009; Wittman, 2011). Food sovereignty entails a call for policies securing rights to and control over productive resources in the hands of local food producers as well as access to markets with fair conditions no matter the size or scale of their production or capital

The amount of land under cultivation has increased globally since the 1960s; however, peasants are steadily loosing access to arable land. The trends show that land is increasingly being concentrated in fewer hands. The food sovereignty discourse is thus relevant in discussions on LSAIs representing an alternative approach to achieve increased food production in line with the increasing global population. Food sovereignty inhibits a notion of ecological sound and sustainable food production, which has led to increasing focus on agro

ecological farming methods emphasizing conservation of biodiversity and ecosystem services through, amongst other, diversified crop production, as opposed to large-scale monocrop cultivation typical for LSAIs. Proponents of such methods argue that agro-ecological farming models can lead to higher productivity as well as better resilience towards climate change. Hence agro-ecological methods could be a more sustainable and feasible way to address concerns over rising global food insecurity (Wittman, 2011).

The Right to Water

The right to water is central in issues relating to LSLIs, particularly in relation to agricultural investments accompanied by irrigation schemes. Such large-scale schemes demand large amounts of water, affecting available water resources for other users in the area. Additionally, the use of agrochemicals associated with large-scale intensive agriculture can result in the pollution and degradation of water sources and thus also compromise the *human right to a healthy environment* and the *human right to health* These impacts can largely compromise smallholders' access to water for agricultural and domestic use (Cotula, 2014). The right to water has not been explicitly acknowledged as a self-standing human right in international treaties but the access to safe drinking water do hold specific obligations under international human rights law. The necessity of basic water requirements to meet fundamental human needs has been recognized since the 1977 United National Water Conference in Argentina. Subsequently the right to water has been referred to in several plans of action such as the Agenda 21. The right to water has been accepted as part of *the right to an adequate standard of living* as well as *the right to health adequate housing*, right to food and not least, as an implicit element in the fundamental *right to life*. Regional declarations such as the Abuja Declaration of 2006, adopted at the first Africa-South America Summit, declared that state leaders would promote the right of its citizen's access to clean and safe water and sanitation. The declaration is not legally binding but reflect a political statement to the recognition of the human right to water (OHCHR, 2010).

ICESC defined the right to water as "the right of everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses" in its general comment No 15 adopted in 2002. The committee emphasized states responsibilities in fulfilling the right and that water must be defined not merely as an economic good but as a

social and cultural good (Mehta, 2014). In 2007 the High Commissioner for Human Rights concluded that access to safe drinking water and sanitation should be recognized as a self-standing human right. The HCHR mentions some key aspects in defining what the right to water specifically involves. These are rights to freedom – including, prohibition on unlawful pollution of water resources, non-discrimination on access to water and non-interference with access to existing water supplies; rights to entitlements – including, amongst other, access to a minimum amount of safe water to sustain life and health and participation in water- and sanitation-related decision-making at national and community levels; water for personal and domestic use must be safe and acceptable -including that water must be free from parasites and microbes or other harmful substances as well as being of an acceptable color, odor and taste. Another relevant key element is the physical accessibility of water and sanitation – including that water must be within safe reach for all sections of the population and in close proximity to, or at a reasonable distance from, each house (OHCHR, 2010).

In July 2010 A UN General Assembly resolution recognized the human right to water and sanitation for the first time. Following up on this, in September the same year, a UN Human Rights Council resolution confirm that

> … the right to water and sanitation are part of existing international law and confirms that these rights are legally binding upon States. It also calls upon States to develop appropriate tools and mechanisms to achieve progressively the full realization of human rights obligations related to access to safe drinking water and sanitation, including in currently un-served and underserved areas (UN-Water, 2015).

Achieving this was not effortless as powerful actors such as the United States and Canada wanted to maintain a attention on water as an economic good rather than a human right in supporting actions of commodification and privatization of water (Mehta, 2014).

Further, central human right treaties do also entail specific obligations on access to safe drinking water, amongst other the Convention on the rights of the child Arts. 24 and 27 (3), The Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) art 14 (2), the African Charter on Human and Peoples Rights and, as mentioned, the ICESCR, all ratified by Tanzania assigning a responsibility on the Tanzanian state to fulfill the right to water. Although international human rights instruments generally has not been adequately implemented in national legislation, access to clean and safe water is recognized as a basic need and a right for all human beings in the NAWAPO of 2002 and the

WRMA of 2009 (Nkonya, 2011). However, as Mehta (2014) point out, there is a gap between human rights talk and action especially evident in the tension between a states commitment to rights and the frequently prevailing market-based mechanisms - adversely affecting vulnerable peoples right to water.

Implementing the human right to water is challenging, although it enjoys global recognition there are still uncertainties to what the concept entails, for instance in terms of the amount of water needed to fulfill a basic human right to water and whether the right is applicable in matters beyond domestic issues, such as water for agriculture for instance. Access to water for agricultural production is intimately linked to access to land revealing an important nexus between land and water rights (Mehta, 2014).

4. Theoretical Framework

Applying a theoretical framework is a way of systemizing phenomena by using theories as tools to explain reality (Berg & Lune, 2012). This chapter will explore a theoretical framework composed to explain the findings of this thesis and guide the analysis presented in the chapter below.

The increasingly evident trend of LSLIs by private and often foreign investors has frequently been discussed in light of Harvey's theory of accumulation by dispossession. A theory evolving from Marx's primitive accumulation, applied to the eviction of peasants by wealthy landlords in the English countryside in the 1500-1800s. Further Marx used this theory to analyze the inherent nature of capitalism as a process of separation of producers and the means of production. Anseeuw et al. explains dispossession as "an involuntary loss of land and resources by those who formally possessed them" (2012, p. 50). Accumulation by dispossession sets out to explain how common property is obstructed by capitalism through privatization of resources such as agricultural land (Harvey, 2003). The well-explored and applied theory has proven to be suitable as a constructive and explanatory framework of processes inherent in land acquisitions (Cáceres, 2015; Fairhead, Leach, & Scoones, 2012; Larsen, 2012; Makki & Geisler, 2011; White, Borras Jr, Hall, Scoones, & Wolford, 2012). The analysis and findings in this paper will thus be discussed in light of Harvey's theory of accumulation by dispossession while supplemented with additional theoretical perspectives drawn from theory of access and legal pluralism. The chapter will end with briefly looking at the grabbing discourse, which has emerged as a common language in discussions of LSLIs.

4.1. Accumulation by Dispossession

Accumulation of capital is according to (Harvey, 2001) the engine in the capitalist power, and at the center of Marx's theory of growth. In order to maintain capital accumulation new areas of capital production frequently needs to be explored. Expanding markets have been one way of postponing the inevitable crises of capitalism, triggered by overproduction, under-consumption and failure to absorb the generated output. As long as capitalism (production and consumption) can be expanded to new markets around the world crises can be avoided. Harvey calls this tendency of confronting crises with exploiting new

geographical locations for the establishment of new markets and new resources as 'spatial fix' (Robbins, Hintz, & Moore, 2013). This was also identified by Luxembourg as central to imperialism – namely coercive trade with non-capitalist territories (Luxembourg in Harvey 2003). In addition to averting capital crises, expanding to new markets especially in developing countries serves as a way of accumulating cheap inputs such as natural resources and labor (Harvey, 2003).

Essential to the neo-liberal project is "the corporatization, commodification and privatization of hitherto public assets" (Harvey, 2005, p. 33). Such assets can be common property resources such a land and water, changing property rights of these essential resources by privatization or commodification can lead to forceful evictions of peasant populations, suppression of indigenous forms of production and consumption, and thus deprivation of livelihoods. Privatization is defined in the Oxford Dictionary of Social Sciences as "the sale of public assets or the practice of contracting out their management to the private sector." (Calhoun, 2002, p. 385). Harvey highlights Arundharti Roy's opinion on privatization:

> [Privatization] entails the transfer of productive public assets from state to private companies. These are the assets that the state holds in trust for the people it represents … To snatch these away and sell them as stock to private companies is a process of barbaric dispossession on a scale that has no parallel in history (In Harvey 2005 p.34).

The IMF and the World Bank have promoted neo-liberal aid policies since the 1980s as conditions for loans and later for debt relief. This was materialized as SAPs in a number of developing countries including Tanzania and other sub-Saharan African states. Many of these countries had lower GDP per capita in the early 1980s than before independence, a situation worsened by declining terms of trade, high debts and declining demand for their goods. The only evident solution seemed to be the adoption of SAPs intended to reduce state expenditure and facilitating for repayment of debts through macroeconomic adjustments such as trade liberalization, privatization policies and reducing the civil service workforce (Moyo, 2009). The expansion of neo-liberal policies opened up new spaces for capital accumulation and thus also worked as a means to reduce crisis of capital, by offering new areas for over-accumulated capital to be absorbed in (Harvey 2003). The recent surge in land acquisitions seem to be tightly related to a capital crisis of fuel, food and finance. Food importing countries such as the gulf-states have invested heavily in African land for the production of food for their own national markets. As these states experience deteriorating environmental

conditions such as lack of water, food production is outsourced on accumulated foreign land and resources to avoid crisis (Bush, Bujra, & Littlejohn, 2011).

Features of primitive accumulation described by Marx are still very much relevant of contemporary capitalistic processes. Marx described the features such as commodification of rural land and conversion of common property to private property as well as suppressing the rights of peasant populations as primitive accumulation. It was a process of separating the producer from the means of production and thus acquiring assets such as land and resources and creating a reserve of cheap surplus labor to be channeled into the private domain (Benjaminsen & Bryceson, 2012). Similar processes - enclosing land areas, converting previously common resources to private property, displacement of rural populations, privatization of national industries and the replacement of family agriculture with agribusiness were noted by Harvey as increasingly relevant in 2003 and still are today. Likewise is the role of the state in supporting processes of accumulation by dispossession "even against popular will". This is especially evident in the recent global land rush spurred by the world food crisis of 2007/2008 (Wolford, Borras, Hall, Scoones, & White, 2013). Privatization of assets and the adoption of institutional frameworks supporting capital accumulation have to be implemented by the state apparatus, and hence regulatory frameworks designed to protect labor and environment is frequently undermined by processes of capital accumulation (Harvey, 2003). Harvey noted that capital accumulation is an ongoing process and proposed the term accumulation by dispossession (Benjaminsen & Bryceson, 2012).

Wolford et al. (2013) point to the same tendency, "The scale and velocity of land acquisitions over the past decade makes 'old' agrarian questions of imperialism, political power and modes of production and reproduction relevant again". The relationship between capital and the state needs to be re-examined - state actors are involved in land acquisitions contradicting the typical separation between the two (Wolford et al., 2013, pp. 197-198). Developing countries might be particularly exposed to such processes, especially afflicting rural areas, as there is less capacity and resources to secure national development without external inputs, such as capital. Decades of foreign debts, SAPs and reliance on market technologies have reduced the ability of the state apparatus to regulate such processes in favor of its own populations (Wolford et al., 2013). Attracting foreign capital also opens up opportunities of personal gain for national elites through business activities and political patronage (Cotula,

2012b).

4.2 Access

Accumulation by dispossession explains how capital accumulation can result in dispossession of people's access to land, water and other resources. It also shows how this process channels wealth to the privileged elites, who are able to derive certain benefits from resources through accumulation by dispossession, creating and maintaining a distinction between the fortunate elites and the less fortunate, e.g. rural populations. Ribot and Peluso (2003) define 'access' as the ability to derive benefits from things - 'things' in this case being natural resources. Their theory of access offers a grounded analysis of who actually benefits from things, and through what processes they are able to do so, "...*who* does (and who does not) get to use *what*, in *what ways*, and *when* (that is, in what circumstances)" (Neale 1998, p. 48 - italics in original in Ribot & Peluso, 2003, p.154). In cases of land acquisitions there are a number of examples of people experiencing dispossession of access to previously common resources such as land and water. According to Ribot and Peluso (2003), this is enabled by accumulators' drawing on so-called mechanisms of power in order to gain, maintain and control resources.

Ribot and Peluso (2003) use the term *bundles of power* to explain how access can be achieved through various mechanisms. Such mechanisms are made up of means, processes and relations enabling actors to gain, control and maintain access to resources. Rights-based mechanisms provide direct and formal access to utilize a resource through rights derived within statutory law. While access to capital, technology, labor, authority and knowledge are some out of a variety of structural and rational mechanisms providing a certain power to maintain access and control over resources (Ribot & Peluso, 2003). Structural and rational mechanisms support and empower rights-based mechanisms, and illustrate what can be called a twofold relationship between power and access, "access to resources constitutes power and conditions agency[5], which in turn enhances or enables access." (Rantala, Vihemäki, Swallow, & Jambiya, 2013).

[5] Agency: "The capacity for autonomous social action" (Calhoun, 2002)

The analytical framework provided by the theory of access explores the range of powers exercised through various mechanisms, processes and relations involved in acquiring access to certain resources. Understanding property rights is an important element in this analysis however it also goes further, exploring the multiplicity of ways people derive benefits from resources, including, but not limited to, property rights. Power relations between benefits and beneficiaries and motivations of actors related to a certain resource should be explored and the mechanisms by which actors gain, control and maintain access identified (Ribot & Peluso, 2003; Wolford et al., 2013). Such relations are largely affected by economic and political circumstances, and hence can change over time. The surge in LSLIs is part of a phase of capitalist development in recent times driven by neo-liberal policies often undermining peasant populations' access to resources. If national governments are eager to attract foreign investment in land or other natural resources, other users of these resources might experience alienation or deterioration of access, as there will be increased competition (Wolford et al., 2013). Commodification of nature enables actors with sufficient access to capital the ability to benefit from resources such as land and water. Generating a market for such resources may not be beneficial to those who need the resources the most (De Schutter, 2011).

The right to access a resource, derived by law, is not something everyone possesses. Being able to derive such a right can depend on actors' access to knowledge on how to actually obtain this right and the ability to navigate an often complex institutional system, on capital to be able to pay for this right and access to certain technology in order to benefit from the resource in an effective way (Cotula, 2011; Skinner & Cotula, 2011). Rural communities have often had their own institutions for governing resources, e.g. water, and are used to deriving access through customary law. Such institutions have developed over time and are often dynamic in nature. In case of water management, customary arrangements can often be more attuned with the physical attributes of the water source. It might have its own arrangements for periods of drought or floods, more flexible than formal arrangements (Franks, Cleaver, Maganga, & Hall, 2013).

4.3 Legal Pluralism

Considering rights to resources can be complicated, especially in many African countries, as rights can be derived or recognized through several elements of law. Such co-existence and interaction of multiple legal orders are called legal pluralism, and can include statutory law, customary law, and religious law to mention some. Claims to resources must thus be recognized by legitimate institutions, and in situations where rights are in conflict the stronger institutions represent the more legitimate claim, "Rights are only as strong as the institution or collectivity that stands behind them" (Meinzen‐Dick & Pradhan, 2001, p. 11). Property rights recognized through statutory law will typically trump customary rights because they have stronger institutions behind them (the state), they provide security and efficiency through 'well-defined' property-rights according to Meinzen-Dick and Pradhan (2001) Customary law may have large influence and normative base in local communities, while statutory law are recognized by courts and legislators. In Tanzania for instance, there are around 120 ethnic groups with a range of customary and Islamic laws. Different institutions and claims within these systems regulate natural resources. However, when scarcity and conflicts over resources arise, "authorities pretend that the only prevailing law is state law" (Maganga, Kiwasila, Juma, & Butterworth, 2004). Natural resources often operate in an uncertain manner – scarcity may arise from drought or floods for instance – applying and utilizing several rules for allocation is appropriate, especially in terms of water (Meinzen‐Dick & Pradhan, 2001).

Customary institutions have largely managed water use in African countries, and are to an extent included in contemporary management policies (Skinner & Cotula, 2011). In Tanzania, for instance, a combination of statutory and customary arrangements is supposed to be considered in water management policies, they are given some level of protection but is still not formally recognized under state law. However, as mentioned by Maganga above, there is a clear tendency towards ignorance of informal institutions and customary rights in favor of statutory written ordinances (Sokile et al., 2003). At the national level, formal institutions, policies, acts and legislations govern water management. At lower levels, there is often a mix of formal and informal arrangements, but the formal predominates. The lower you get in administrative levels, larger emphasis is placed on informal arrangements and institutions, on catchment or sub-catchment and village levels, customary, informal arrangements can dominate (Maganga, 2003).

In Tanzania many smallholders do not hold formal water rights unless they are organized in WUAs, which give them a formal claim to water resources and requires them to pay for the service. However the level of organization into WUAs has been low, in the Great Ruaha basin only ten per cent of water users derive rights from WUAs. On the other hand government institutions, corporations and private investors have obtained formal rights, they also have the skills and resources to navigate the bureaucratic system and the capacity to maintain their rights by for instance paying the acquired fees. The power imbalance becomes evident in cases where customary and formal rights collide and governing institutions prioritize formal rights that can be defended in the formal court system (Skinner & Cotula, 2011).

In terms of rights to land, customary law does not have a formal recognition under state law but are given some level of protection for instance in the Village Land Act of 1999, where customary rights are recognized in the same legal status as statutory rights, and the responsibility to manage village land is vested in the local villages. However, the government can expropriate village land if it can argue that it will be to the benefit for the nation as the government is the final trustee of all Tanzanian land on behalf of its people (Cotula, 2012b). The development of a large-scale agricultural estate by private investors on former village land can be argued to contribute to national economic development and modernization of the agricultural sector.

The governance frameworks relevant to LSLIs can be quite extensive, as there exists regulations on several levels within the state and on international level. Cotula (2012) has named this plurality *global legal pluralism*. Combining the legal pluralism existing within a state - national, customary and religious laws and institutions - with the plurality of frameworks on international, regional and bilateral levels. International law, transnational contracts such as bilateral investment treaties (BITs), and international guidelines[6], as well as legislations in investors' home countries can all be significant in such land investment deals.

[6] E.G The Voluntary Guidelines on Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (FAO, 2012, http://www.fao.org/nr/tenure/en/) and the Guidelines for Responsible Agricultural Investment (RAI) that Respects Rights, Livelihoods and Resources (UNCTAD and IFAD 2010, https://www.responsibleagroinvestment.org/node/256)

The extensive legal frameworks protecting foreign investors, for instance frameworks governing BITs or agreements such as the Agreement on Agriculture within the WTO, are robust and according to Cotula (2012) put in place to secure transnational investment flows rather than to ensure that such flows benefit local people in the recipient countries (Anseeuw et al., 2012). For individuals adversely affected by investments, it is mainly the international human rights law that functions to protect them. There have been an increasing number of cases in human rights courts where people adversely affected by land acquisitions have sought protection of their human rights such as the right to food or the right to property (Cotula, 2012b). However, legal protection under human rights law is challenged by weaknesses in practical rules and legal procedures. Bringing a claim to an international human rights court is difficult and courts are often hard to access due to geographical, language and monetary barriers. International human rights law requires petitioners to go through all possible ways within national law before approaching international courts, this is usually not the case for investors who can take their case directly to international arbitrators (Anseeuw et al., 2012; Cotula, 2012b). A certain amount of time and resources is required to be able to undertake such a process. In addition to inaccessible courts, human rights law does present shortcomings. The African Charter on Human and Peoples Rights, although recognizing the right to property, does not require states to compensate for losses of property rights, it does require compliance with national law but does not provide anything beyond national law and its shortcomings. Considering the human right to food as an example, which is recognized in legally binding treaties, the normative content of the right is based on general comments and voluntary guidelines which does not inhibit a solid legal value (Cotula, 2012b).

The legal context, described by Cotula as global legal pluralism makes local people vulnerable to dispossession. Legal pluralism within a country such as Tanzania is complex as it is, and adding international legal framework on top of this does make the system quite difficult to navigate for individuals negatively affected by land investments. Guidelines on responsible agriculture investments have been developed but do have a limited impact, as they are in fact voluntary and with restricted obligations for states and investors. The evident power imbalances in legal protection of governmental and commercial actors, and rural people on the other hand, facilitate processes of accumulation by dispossession by enabling

capital-rich accumulators to access and benefit from productive natural resources through enclosure and dispossession.

4.4 Grabbing

The privatization of land areas for the purpose of intensive agricultural production, mining, tourism or other exploitative industries are often accompanied by unsustainable use and exhaustion of resources. Harvey refers to this escalating depletion of global environmental commons as "commodification of nature in all its forms" (Harvey, 2003, p. 75). This commodification of nature, in many instances leading to displacement of local people and thus dispossession of resources on which people depend, has in later years been termed *resource grabbing*, or more specifically *land grabbing*, *water grabbing* or *green grabbing* (Benjaminsen & Bryceson, 2012; Fairhead et al., 2012; Franco, Mehta, & Veldwisch, 2013; Rulli et al., 2013), highlighting the notion that someone has taken or acquired control of these resources from others who depend on them. The Tirana conference of the ILC defined land grabbing as land acquisitions that are in violation of human rights, without prior consent of the pre-existing land users and with no consideration of the social and environmental impacts. Others apply broader definitions as the processes of land acquisitions are often not transparent or democratic and any consultation of local populations or social and environmental impacts can be difficult to assess. Franco, Borras Jr, et al. (2013) look at land grabbing as control grabbing, as grabbing land is essentially capturing control over land and associated resources and controlling the benefits of the use of these resources (Rulli et al., 2013).

Similarly Franco and Mehta et al. defines water grabbing as a process in which "powerful actors are able to take control of or reallocate to their own benefit, water resources used by local communities or which feed aquatic ecosystems on which their livelihoods depend" (2013, p. 197). This definition also takes the wellbeing of ecosystems into account highlighting the important point that not only human beings are affected, but also the functioning of ecosystems and biodiversity can be negatively affected by water grabbing. Land- and water grabbing is thus a particular form of accumulation by dispossession as it entails enclosure of commons, commodification and privatization of resources, and often displacement of local populations (Harvey, 2003, 2005 in Franco, Mehta, et al., 2013). It is also useful to consider Rantala et al. (2013) definition of displacement as not merely the

physical removal of people but as a broader focus on the loss of access to important resources, such as land areas, forest resources or water supporting people's livelihoods.

5. Findings

5.1 Study Area

This chapter will present findings from fieldwork in the Kapunga area. The chapter begins with a descriptive part presenting the study area, a brief history of the area and the development of agricultural production from subsistence to the establishment of large-scale estates. Further the chapter will describe the present situation in the Kapunga area and embark on an analysis of the impacts posed to livelihoods by the establishment of a large-scale agricultural investment, namely the Kapunga estate. The Kapunga area is located in Mbarali district, located within the Usangu plains, making up the upper part of the Great Ruaha River Basin a water basin of great importance as it supports a range of different water users and constitutes the upper part of the Rufiji River Basin, the largest river basin in Tanzania. Hence the Kapunga area is located upstream in a water basin supporting millions of livelihoods, economic activity and ecosystems and the activities in the Kapunga area can thus have large ramifications.

During my fieldwork I visited several villages within four wards. These were Ihahi ward with the villages Maherela and Ihahi; Itamboleo ward with the villages Itamboleo, Kapunga and Mapogoro sub-village; Utengule ward with the villages Yala and Mwashikamile and Chimala ward with the villages Kibaoni and Chimala. I spent most of my time in Kapunga village, which is the closest neighbor to the Kapunga estate and accordingly shares the same name as the estate, and the Mapogoro sub-village within Kapunga village. These two villages lie in closest proximity to the estate. Maherela village is located along the Ruaha River, downstream from the irrigation intake of the Kapunga estate. This village is located farthest from the Kapunga estate. Although the whole study area is fairly extensive, I will refer to the whole area as the Kapunga area and rather use specific village names when discussing matters of relevance within the different locations (*see figure 1 for satellite of study area*).

Figure 1: Satellite showing study area. Kapunga area is in this study defined as the area between Yala village and the estate irrigation intake. All visited villages are not visible on the map but are located within this area in varying distance from Kapunga estate (Source: Google Earth, 2015).

Usangu Plains

Mbarali district including the Kapunga area is situated in the Usangu plains, which covers part of the eastern Rift Valley. The plains extend an area of 15,500 km^2 as a shallow alluvial basin lying around 1000 meters above sea level (Walsh, 1996). In the North, the Ruaha National Park borders the plains, in the east the hills of Iringa, and the Southern Highlands and mountain ranges to the South edging the plains creating the shape of a tilted bowl. Rivers and streams flowing down from the highlands join in the Great Ruaha River in the Usangu plains flowing out of the plains in the northeast passing through an extensive perennial wetland. The wetland is a significant feature of the hydrology of the Great Ruaha River, and habitat for important biodiversity in the Ruaha National Park Further downstream the Great Ruaha River runs into the Mtera and Kidatu reservoirs run by Tanzania Electric Supply Company (TANESCO), producing hydropower accounting for about half of Tanzania's total provision of electricity, before joining the Rufiji River supporting agriculture and fisheries in its way through the lower Rufiji before running out into the Indian Ocean (J. J. Kashaigili et al., 2006; McCartney, Lankford, & Mahoo, 2007; Walsh, 1996) (*See figure 2 for map of Rufiji basin)*. The Great Ruaha River is one of Tanzania's most important river basins in terms of its contribution to the national economy through hydropower generation and through

supporting economic activities such as agriculture and tourism (McCartney et al., 2007). The climatic and environmental conditions in the Usangu makes it ideal for irrigated agriculture and pastoral activities with extensive grasslands, wetlands and several watercourses, although rain-fed agriculture is more risky due to low and sometimes unreliable rainfall patterns. In the 1950s the British colonial government targeted the area for irrigation development, which was maintained by the Government of Tanzania after independence (Charnley, 1997) .

The Usangu plains is the homeland of the Sangu people, originally pastoralists, but the development of the area, led by the state government have made it difficult for the Sangu to base their livelihoods on pastoralism, they have adapted to developments and increasingly become dependent on rice farming. This transformation is typical for many African pastoral groups, as pastoral property systems have been transformed by state policies. In Usangu the lush rangelands were managed by a system of communal property. Rights to resources were determined by residence and ethnic affiliation to the Sangu group. Over the last decades large areas of land has been acquired as state and later private property in the Usangu plains for the purpose of agricultural production. In addition to Kapunga estate, schemes commissioned by the Government of Tanzania in the period 1984-2004 include: Kimani (6,000 ha), Madibira (3,000 ha), Majengo (800 ha), Mswiswi (800 ha), Motombaya (800 ha), Ipatagwa (700 ha), Meta Lunwa (1,200 ha) and Chimala (3,000 ha) (*See figure 1 for location of irrigated areas*) (Charnley, 1996; J. J. Kashaigili et al., 2006). Irrigation development policies introduced as a consequence of the agricultural development has undermined the Sangu resource management system, and the customary management arrangements have gradually lost relevance.

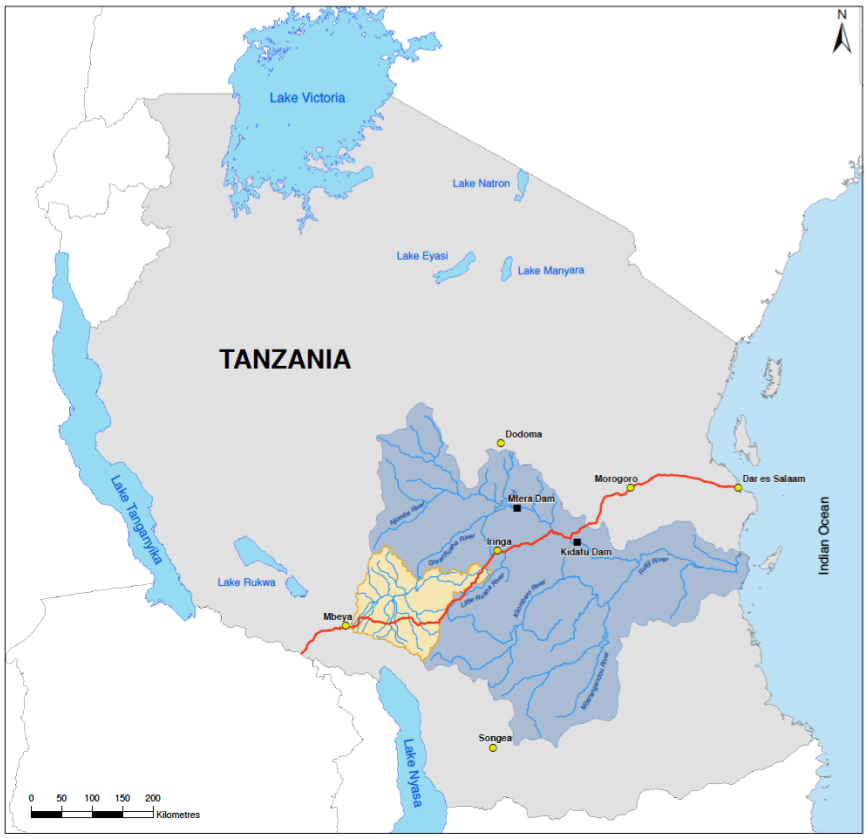

Figure 2: Map of Rufiji Basin, showing location within the country, with the Usangu catchment in yellow. (SAGCOT, 2011a)

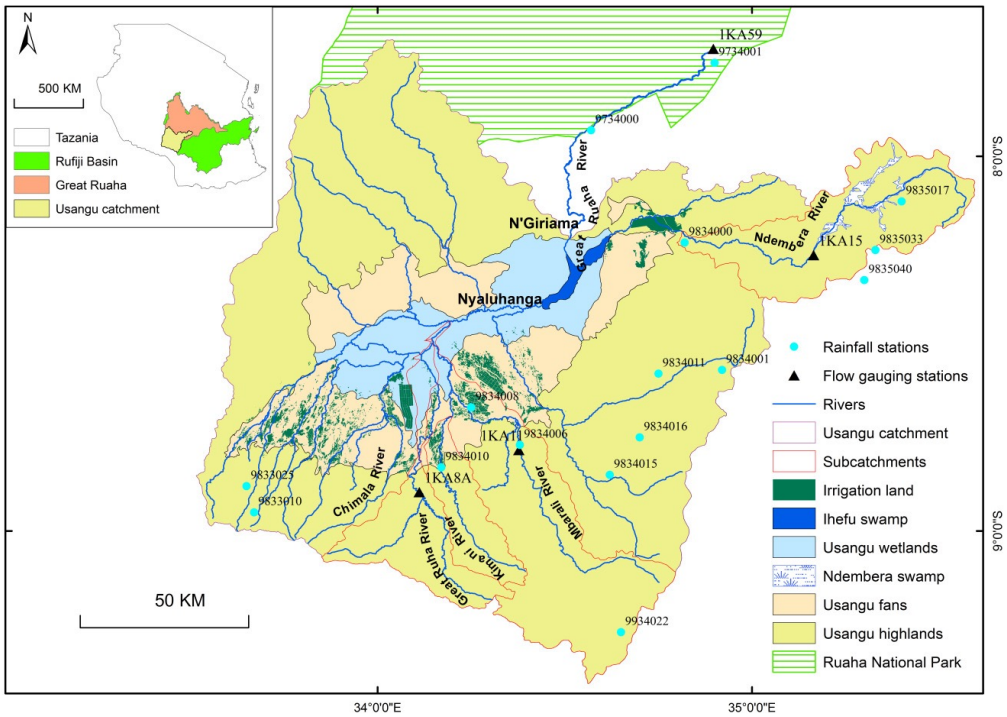

Figure 3: Map of Usangu catchment showing irrigated area, and hydrological features. (Shu & Villholth, 2012)

The favorable conditions for rice cultivation and pastoralism have led to high immigration into the area from other parts of the country. Nyakyusa and Ndali people came from the southwest to conduct paddy cultivation and large number of Sukuma and Masaais came as pastoralists with large herds. The Sangu people now comprise less than half of the total population of Usangu (Charnley, 1997; Walsh, 1996). The acquisition of land area and influx of immigrants has led to increased competition over resources, adding to this competition more recently was the expansion of the Ruaha National Park to the north in 2006. Leading to the forced resettlement of nine villages comprising about 200,000 pastoralists and their cattle having to resettle outside the new park borders, several of my informants in the Kapunga area had settled there as a result of displacement from what is now part of the Ruaha National Park (Greco, 2015).

Kapunga Area

Kapunga village has about 4400 inhabitants where just over half is registered as farmers in the village register. Livelihoods in the Kapunga area are largely based on farming activities and pastoralism. Some people also practice fishing or other activities but these are often supplemented by farming. The main crop in the area is rice but also maize, sesame and vegetables are cultivated. The majority of my informants were farmers cultivating plots of different sizes. The average crop size among my informants is 5.4 ha, although the stated plot sizes varies from 0.2 ha to 28.3 ha among the informants. All farmers I spoke to cultivated rice (paddy) and some also cultivated maize or other crops. Most farmers sell part of their produce on the local market, depending on their yield. The rice from this area is recognized as one of the best in the country, despite this, the market prices fluctuate and many farmers complain about low and instable prices. Smallholders only cultivate in the wet season, whether they have access to irrigation or not, causing prices to go down in the harvest season as the market is flooded with rice at this time. The ones with access to improved irrigation can have a head start on the cultivation season if they are able to access water before the rain fully sets in, and thus acquire better market conditions.

Based on the range of my informants, smallholders can be broadly classified into four categories. Farmers renting plots in the smallholder irrigation scheme owned by the Kapunga estate but managed by the smallholders themselves; farmers accessing irrigation from smaller

streams in the area (for instance Chimala river) mostly through traditional irrigation systems; farmers using homemade furrows taking water either from the estate irrigation system (sometimes paying the estate for this or sometimes doing it without permission from the estate), from the excess discharge water flowing from the smallholder irrigation scheme or discharge from the estate irrigation system; and lastly rain-fed farmers without access to irrigation.

Not all informants could tell me how many bags of rice they expected to harvest, but according to those who could make an estimate based on previous seasons, it was evident that those with access to irrigation has a significantly better yield than those who are dependent on rain. The area has a unimodal rainfall distribution, with only one rainy season lasting from November to April (Tarimo, 2014). This means that there is only one farming season for paddy. The season is extended for the large-scale estates that use modernized irrigation; they begin their cultivation schedule already in early October. Smallholders are largely tied to the actual start of the rainy season before they can start cultivation. During my visit (November 2014), smallholders were impatiently waiting for the rains to come, and the rivers and irrigation canals to start providing water for their fields.

Smallholders in the Kapunga area use local varieties of rice, these are aromatic but do not give high yields (Interview 44). Farmers in the area have cultivated several varieties of rice through history; lately older varieties have been replaced with modern varieties. According to Friis-Hansen (2003) farmers in Usangu do not choose varieties based solely on productivity, but often maximize their total household rice production by using a range of varieties, some chosen for high productivity and others for their good taste and cooking qualities (E. Friis-Hansen, 1999). Few inputs except labor and water are used, some farmers use improved seed varieties, but these are expensive and new seeds need to be purchased every season. Most farmers keep a small proportion of each year's harvest as next year's seeds. The RIPARWIN[7]

[7] Raising Irrigation Productivity and Releasing Water for Intersectoral Needs. A research project funded by Department for International Development (DFID), implemented by Overseas Development Group (ODG), University of East Anglia, Sokoine University of Agriculture, Soil-Water Management Research Group (SWMRG) and the International Water Management Institute (IWMI)

study shows that only 3.3 per cent of informants in the study applied fertilizers. This corresponds with what my informants claimed to be one of the challenges to their farming activities, namely lack of access to fertilizers and other inputs, as these are too expensive for most smallholders to acquire. Renting plots for cultivation is relatively common in the area; costs vary with access to irrigation and the location of plots along the irrigation furrow – top end of furrow is more valuable than tail end. Some farmers rent labor to help with ploughing, transplanting and harvesting if they have the capital, while others rely solely on their own family to work on the field (Kadigi, 2003).

5.2. From Subsistence to Commercial Farming

Rice cultivation in the Usangu dates back to the 1920s (Greco, 2015), but in Kapunga village, people started growing paddy in 1964, organized in the Usangu Rice Farmers Union, maize and sweet potatoes were the most common crops before the introduction of paddy. Cultivation of rice proved much more beneficial and it soon became the most popular crop in the area (interview 46). Some elders in Kapunga village told me about the time Nyerere was travelling the country and passed by piles of rice laying by the road. He stopped to admire the rice and eventually ended up acquiring a plot for himself.

> "One day Nyerere was passing through on his way to Mbeya (around 1966) He saw this, and asked, 'Where does this rice come from?' and people said it comes from Kapunga. He then went himself to Kapunga to see. So he came here and got his own plot at Kapunga to grow paddy himself " (interview, 46).

The first large-scale rice farm in Usangu was established in Rujewa, Mbarali already in 1958 by Tanganyika Agricultural Company as a pilot project testing gravity irrigation with assistance from FAO. The Mbarali farm was taken over by a Chinese expert-team in 1964 before it was transferred to the National Agricultural and Food Corporation (NAFCO) in 1977 (C. C. R. Mbunda, 2009). Irrigated paddy production has gradually expanded since the 1960s contributing to increased competition between agricultural, pastoralist and fishing activities over land and water resources in the area (Greco, 2015). The Tanzanian government initiated the Kapunga estate as a response to the failed attempts of the then Usangu Farmers' Cooperative to establish rice farms. The cooperative lacked the proper irrigation systems to succeed with this so the Government of Tanzania, through NAFCO, funded the establishment of the Kapunga estate and the accompanying smallholder irrigation scheme with a loan issued

by the African Development Bank, co-financed by the Nigerian government. The construction of Kapunga rice farm started in 1987 preparing 3000 ha of expropriated village land for cultivation. In this process 73 families were resettled (Greco, 2015). According to elders in Kapunga, some people were not happy with NAFCO acquiring this land due to the eviction of locals and loss of pasture for livestock (Interview 46). Although some villagers were unhappy and opposed the process, the village was included in the decision to give a total amount of 5500 ha to the establishment of the NAFCO estate, plus 600 ha to the establishment of the smallholder irrigation scheme (Interview 46). NAFCO started operations in Kapunga in 1991 (Greco, 2015). The estate area was divided into 500 plots of 6 ha each, a portion of these were made available for rent. (Cleaver, Franks, Maganga, & Hall, 2011). During this time people from Kapunga village and other nearby villages had the opportunity to cultivate plots inside the estate area, they were allowed to use estate machinery and some villagers were also employed at the estate. Although the production was highly mechanized, about 60 staff members were employed there.

Villagers farming in the smallholder irrigation scheme were benefitting from subsidized agricultural inputs. They were able to use estate machinery and received agricultural extension services, according to informants in Kapunga village. Estate land that were left idle by the estate, was made available to villagers, free of charge (Greco, 2015). Smallholders in the scheme had access to storage in the estate warehouse. This all changed when the estate was privatized in 2006 (Interview 46). According to villagers in Kapunga, privatization of the estate came without any warning. However, by this time, the estate had been struggling for some time with low yields, and the area under cultivation had decreased from 3000 ha to 256 ha, Greco (2015) attributes this decline in production to pest control problems. “The capital intensive design, coupled with poor management and widespread corruption led the estate to run a loss relatively soon” (Greco, 2015, p. 5). From 1997 NAFCO withdrew from the management of the estate and merely functioned as landlords renting out the plots to tenant farmers. The rent was used to maintain the irrigation system and other infrastructure (Greco, 2015).

5.3. Privatization

The government announced plans to privatize Kapunga estate in 2004. In response to this announcement, the tenant farmers established Chimala Agricultural and Marketing Cooperative (AMCO) with the purpose of buying the estate. AMCO consisted of medium-scale farmers with the investment capital to rent the 6 ha plots within the estate and cultivate these with inputs such as hired labor and machinery. AMCO did not succeed in establishing sufficient local backing of their claim, partly due to the number of local small-scale farmers who did not see how this would benefit them. "This vast majority [small-scale farmers] realized that land redistribution to the cooperative would have consolidated rural capitalism, and therefore would not have defended their interests, but would instead have gone against them." (Greco, 2015, p. 9). An alternative land redistribution plan dividing the estate into smaller plots of 1 ha similar to the smallholder irrigation scheme, allowing access to land and irrigation to local small-scale farmers, were then suggested. This proposal was supported by RBWO and recommended by the RIPARWIN-study, as low-input small-scale farming had proven to result in greater water efficiency (Greco, 2015; RIPARWIN, 2006). Greco calls the decision to privatize Kapunga estate, despite the recommended alternatives, "… a land grab … ahead of its time" as the farm established production already in 1991 and then privatized in 2005, before the so-called global land rush began (2015, p. 3). However, discussions of state led land acquisitions dates back further than the more recent surge in land investments.

Current Owner

Kapunga estate was sold to Export Trading Group Co. Ltd (ETG) for 2.311 billion Tsh (US$ 1.38 million) in 2006 (C. C. R. Mbunda, 2009). ETG is an international agribusiness company operating in over 30 African countries as well as in North America, India, China and South-East Asia. They move "almost 1.4 million metric tons of 25 different commodities – including maize, pulses, wheat, rice, sugar, oilseeds, edible nuts, coffee, tea, fertilizer and farm implements along [its] supply chain between 30 countries" (ETG, 2015). The company was initially a large family-run Tanzanian/Asian trade house, trading staple foods and fertilizers. According to Greco the company made its fortunes by sourcing emergency food relief stocks, as the local contractor for the World Food Program in Tanzania, and has built up large storage facilities and transportation fleets (Greco, 2015). The acquisition of Kapunga estate was made just in time for the global rush for biofuels in 2007/2008, driven by the

rising energy prices. ETG saw an opportunity in the market and teamed up with the South African biofuel company Vermak with the goal to convert the old rice farm into Jatropha production. However, the district government intervened, pointing to the contract that specified that the investor should only grow rice; Jatropha cultivation would be in breach of the existing contract, ETG and Vermak were thus forced to abandon the conversion plans (Greco, 2015; C. C. R. Mbunda, 2009). According to interviews conducted with ETG officials by Mutalemwa in 2010, the Kapunga estate was at that time in position of production facilities worth US$20 million and the value of the estate was set to US$14 million (Mutalemwa, 2013), translating into an increased value of US$ 12.62 million more than ETG paid for the estate in 2006.

ETG transformed into a transnational corporation through financial support, such as a syndicated loan from the International Finance Corporation (IFC) of the World Bank, granted to improve trade infrastructures for primary agricultural commodities in 11 African countries, India and the United Arab Emirates. The loan was legitimized by the IFC as a means to strengthen market infrastructures and ensure smallholder's development. In the same period, after the global financial crisis of 2007/2008, private equity funds started targeting African agriculture. The Carlyle Group, one of the world's largest equity funds, granted a loan to ETG - the first loan ever granted to an African company. The Carlyle Group and the South African agribusiness Remgro established the Pembani Remgro Infrastructure Fund, and together with Standard Chartered Bank bought a stake of ETG worth US$120 million (Greco, 2015).

Kapunga Estate

The estate currently has about 25 employees, informants from the Kapunga village did not know of any locals employed at the estate, as was the case during NAFCO. Apart from the estate-run cultivation, a number of plots are made available for outgrowers, and for rent. Outgrowers receive inputs such as seeds and fertilizers as well as assistance in land preparation and harvesting from the estate. The outgrowers do land preparation and transplanting and have the responsibility to monitor the plots. After harvest, outgrowers are required to sell their harvest to the estate for a price determined by the estate. In addition there are some tenants renting plots on the estate, they pay for the land and water, they are required to buy fertilizer from the estate but do not get any assistance in cultivation activities.

They are free to choose what varieties of rice to cultivate and do not sell their produce to the estate (Interview 44). According to interviews with villagers from Kapunga, these plots are too expensive for local people, and are tended by people from outside the area (interview 45).

In the season of 2012/2013 the estate produced 16,000 tons of rice, including the outgrowers yields. Since the estate silos can only hold 10,000 tons they had problems with the excess rice, which had to be stored outside, and sold cheap on the local market. For the next season they expect to get 10,000 tons, 5280 from the estate and 4720 tons from the outgrowers. Three varieties are grown by the estate and outgrowers these are Short Grain 05, Caterpillar Star medium Grain and Fire Doom. These can yield up to 5 tons per ha. The rice is exported mainly to Kenya and Congo, while the company is currently looking into the Burundi and Rwandan markets as well. Due to imports of cheap Asian rice, the Tanzanian market is not financially beneficial, and there is more profit to be made by exporting the produce (Interview 44).

The cultivation schedule on the estate starts earlier in the season now than they used to before, due to reduced access to water for irrigation. Earlier they were allowed to abstract 4 cubic meters per second, whereas this amount has gone down to 0.75 cubic meters per second in the last two years. The Rufiji Basin Water Board (RBWB) decides the allocation of water to the users in the basin. It is not enough water to flood large areas at a time now, so the estate start cultivation activities earlier than before by flooding a couple of plots for one week, then draining before flooding the next couple of plots and so on. Cultivation now begins in early October and the last plot is harvested in July. The estate is permitted to draw 414,720,000 liters of water a day for the irrigation of 3000 ha. From June to October they are not permitted to withdraw water for irrigation, but are allowed to abstract 43,200,000 liters a day for domestic use. From October on, during cultivation, they use groundwater for domestic use on the estate (Interview 44). There is no monitoring of how much water is actually used by the estate; this was confirmed by the RBWO, stating that a lack of resources make it impossible for them to conduct proper management of the water extraction in the basin (Interview 47).

The estate management is currently exploring other, more profitable crops. There are plans to grow 504 ha of sesame, green gram and soy in addition to rice in the coming season (2015/2016). They have already conducted some successful trials with soy and good market

conditions for soy gives high expectations for this crop. They are also applying for a permit of dry season irrigation of Green Gram in the gap months between the end and beginning of the rice cultivation schedule. According to my informant at the estate, the market is currently the main challenge in terms of rice production, together with declining water provision. Thus looking for more profitable and sustainable alternatives is necessary (Interview 44).

Smallholder Irrigation Scheme

Belonging to Kapunga estate is the 600 ha smallholder irrigation scheme also established by NAFCO. The scheme is divided into 1 ha plots that are currently rented out for 100,000 Tsh per plot. Farmers in the irrigation scheme get access to irrigation from the estates irrigation system, and the rent is negotiated based on how much water the estate has access to and the maintenance needed to maintain the irrigation system. The provision of water given to Kapunga estate by the RBWB is estimated based on the 3000 ha of the estate and the 600 ha smallholder irrigation scheme. The scheme management, consisting of farmers elected to represent members of the scheme, negotiates the amount, price and timing of water provided to the smallholders each season with the estate management. Although the estate starts cultivation activities already in the beginning of October, the smallholder scheme does not receive water that early (Interview 44).

6. Discussion: Accumulation and Dispossession on Local, Regional and National Levels

The previous three chapters presented a background including a policy context explaining the political and institutional framework in which LSAIs are taking place in Tanzania. They then explored a theoretical framework before Chapter 5 described the study area. These chapters together provide the foundation for *this* chapter, which offers an analysis of processes happening at the local level – the Kapunga area, and at the regional level – the Great Ruaha River basin. Lastly, it looks at how the state government is a key facilitator in enabling such processes, despite physical and legislative manner.

6.1 Local Experiences

Land issues: Enclosure and Border Dispute

The change in ownership of the estate in 2006 led to a number of changes for the population in the Kapunga area. Overall the relationship between the new estate management and its neighbors in the Kapunga village was tense. The estate management evicted 18 households residing on what the investor claimed to be estate land. The eviction was quite dramatic for the affected villagers. Houses were burnt down and no compensation has been paid to the households (Interview 17) (Greco, 2015). The villagers of Kapunga perceived this abrupt process as a statement of not being wanted in the area and has caused a general feeling of grievance towards the investor.

> The biggest challenge we are facing is the existence of the investor. He does not want to give water. And we used to live close to the estate but were evicted when the investor took over. This was in 2007, we were not notified in advanced they came and just started tearing down the houses (interview 17).

Later it became clear that there had been made a mistake in the formal transferal of the estate area. The map used when drafting the contract between the state and the investor was incorrect. The outcome of this error was that the investor received an area covering 7,370 ha, although the estate area in fact only covered 5,500 ha (Interview 48). According to this contract, parts of the acquired estate were located on what was actually village land. Before the government discovered that this dispute was in fact due to an error on a map, the villagers were unsure if they could continue to stay in the village or whether they would have to

migrate. According to informants this insecurity had a negative effect on livelihood incomes in that particular period as several farmers felt unsure of whether they were allowed to cultivate or if they would be forced to leave their land. The villagers complained to the district government, then to the regional government, and eventually a group of representatives from Kapunga village travelled to Dar es Salaam and met with the prime minister. The dispute was investigated and the mistake was eventually detected. However, according to the estate management the dispute remains unsolved.

The problem is that ETG paid for the acquisition of 7,370 ha of land, and has to be adequately compensated for the 1,870 ha that are lost. ETG (in the period before acquiring the land) applied for funding from investment banks and presented the project as 7,370 ha. A reduction in the land area of the project is thus problematic although the excess land in question has been lying idle since privatization, and according to the estate management there are no plans to cultivate this land in the near future (Interview 44). A representative of the Ministry of Agriculture confirmed this story and blamed the mistake on the representatives of the ministry responsible for the transferal of the estate. Although a final conclusion to this dispute has not been reached, the most recent solution that has been debated in government is to provide land in the Iringa area to the investor, compensating for the lost land at Kapunga (Interview 48). This border dispute has been known for years, but still the land has not been given back to the village. The dispute displays a tendency towards recognizing the formally acquired land rights of the private investor although based on a mistake, over the village land rights.

Another central issue mentioned by the majority of informants, is the difficulty of passing through the enclosed estate area. Many of the villagers in Kapunga have plots in an area called Kapunga Moja, located on the opposite side of the estate from the village. There are roads going through the estate leading to Kapunga Moja, but these were closed off for villagers after privatization. Several farmers complained about spending hours getting to their plot and then hours getting back at night, having to walk all the way around the estate borders.

"A big change was in regards to the big fence that the investors built. We could not pass through the estate to reach our fields. To go around is so far" (Interview 1).

It should be mentioned that this has improved lately, as there has been a shift in the management of the estate. People are now allowed to use some of the roads going through the estate area but they must pass through gates with security guards. Some of the roads remain closed - for instance the road connecting Yala and Mapogoro villages to Kapunga village.

Passing through the estate area is also a problem for pastoralists searching for water and pasture for their livestock. There seems to be a generally more tense relationship between pastoralists and the estate management than with other villagers. When the estate was privatized there were some incidents involving pastoralists and estate management that are still fresh in the minds of people in the area. For instance an estate vehicle ran into a Sukuma man, apparently on purpose, as the man and his cattle were passing through the estate area. I never met this man but several informants mentioned this incident. There have also been incidents where the estate management has shot cattle as they have passed through estate land, or even seized animals and kept them for their own workers on the estate. Pastoralists told me about events where they have been caught on the estate area and held for hours, then brought to the police and held there for days before being released with a large fine. Although the approach of the management seems to have improved lately, pastoralists and farmers are still frightened and insecure about the actions and accusations of the estate management. However, for pastoralists finding pasture and water for their cattle is challenging and the risk of crossing into estate area is sometimes unavoidable in the quest for water and pasture.

> "Now there is a scramble for grazing land and water so we have to decrease cattle. There is no grass anywhere, but water is ok if you live far away from the investor. The closer to the investor the less water you have" (Interview 14).

> "The issue of water is the biggest issue affecting us. Also blocking the roads through the estate so that people can pass through from one village to the other. He [the investor] has opened some roads but not the one from Yala village to Kapunga village. So people have to go a long way around the estate" (Interview 15).

Water issues: Deprivation and Dispossession

The most evident challenge to the livelihoods in the Kapunga area is access to water, a situation that has deteriorated over time and can be associated to the change in ownership of the Kapunga estate. The current source of water for people in Kapunga village is the

irrigation canals, bringing water from the Ruaha River to the estate and the smallholder irrigation scheme. The irrigation system is comprehensive with many kilometers of canals running from the intake to the final discharge back into the river. There are settlements along the canals providing a source of water close to people's homes. When driving along the road beside the canal we could frequently see people washing their clothes and bodies and fetching water from the canals, as well as livestock drinking or bathing in the same water. In the dry season the water in the canals has low velocity and an increasingly brownish color the further along the canal system you travel. Several informants stated that sometimes the water tastes of chemicals especially during periods of cultivation; in addition the estate uses Glyphosate to kill weeds growing along the canals (interview 44), which inevitably ends up in the canals.

Before the estate was privatized, Kapunga village had access to several water taps providing groundwater for domestic us to the villagers. These were installed during the NAFCO time and according to villagers NAFCO provided these taps to the village. After privatization the pipes supplying water for these taps were diverted to the estate. Since this happened there has been no other source of water available to villagers than the water from the irrigation canals. There were some efforts to provide groundwater from wells, however, in order to run the electrical pumps they were required to pay 40,000 Tsh a day to the estate management for gas; in addition the tank used to store the water from the pumps was destroyed during bad weather and needed to be replaced. These were expenses that the village could not manage. Some informants mentioned that there had been surveyors in the village to assess the water level in terms of providing new wells for water abstraction but nothing has since happened. There have also been promises made by the estate that they may provide new taps with groundwater, my informant at the estate management confirmed this. He ensured that the village would receive taps by the end of the year (2014) but there are still no taps available to date (July 2015).

Informants especially from Kapunga village complained about large occurrences of typhoid and diarrhea, due to bad quality of water. One woman said that diarrhea had become almost a normal state for her, she could manage it but it was bad for the children.

> "There is water; we get it from the canal. We can either fetch it ourselves or someone sell it for 200 Tsh per bucket. The water is not safe in the canal. It is difficult to see it or taste, but

> people get diarrhea from drinking it. Animals are drinking from it and people are washing clothes and things in the water upstream" (Interview 42).
>
> "Have you experienced people you know in the village die from typhoid?" "Yes, many!" (Interview 22)

Several informants mentioned that the investor is controlling their water as the estate management has the power to open or close the irrigation intake. This affects the thousands of people living along the canals depending on them for water both for domestic and agricultural use. This can also affect the people living along the river downstream from the intake, in Maherela village. There, villagers complained that the investor sometimes diverts too much water from the river. This has resulted in conflicts between the investor and villagers. There have been some incidents where villagers have tried to block the irrigation intake in order to let more water pass downstream in the river. As a result the estate has recently installed a 24-hour security guard by the intake. On the other hand, villagers tell about incidents where there is almost no water flowing in the river due to the estate diverting all the water into the canal, this can go on for some days. When there is reduced flow in the river the water gets dirtier; with low flows some people take advantage of the situation and pour poison in the water to kill fish leaving the little available water in the river undrinkable.

Figure 4: Irrigation canal at intake from Ruaha River (Photo: Siv Maren Sandnæs).

Figure 5: Ruaha River after irrigation intake (Photo: Siv Maren Sandnæs).

Figure 6: Discharge canal from Kapunga estate. Used as drinking water for several households in Kapunga village (Photo: Siv Maren Sandnæs).

Figure 7: Local people fetching water from irrigation canal (Photo: Siv Maren Sandnæs).

Water for Productive Use

Water for irrigation is an issue for many smallholders in the Kapunga area. The 600 ha smallholder irrigation scheme receives water through the estate's irrigation system, and every year the amount of water provided to these smallholders must be negotiated with the estate management. Smallholders in the scheme expressed discontent over the timing of the water they were receiving, saying that they were never sure exactly when the water would be released into their fields and that sometimes this could happen at the wrong time in their cultivation schedule.

"Sometimes the investor can allow the water to flood into the IS fields when he wants. He can close or he can open at times where it is not appropriate for the farming schedule. Sometimes this can destroy the yield" (Interview 1).

One of the advantages with farming within the smallholder scheme is that smallholders receive water early in the wet season before the rains have started properly. This means farmers in the scheme can harvest earlier and sell their produce before the market gets flooded with rice from rain-fed farmers. However, when I visited in mid-November the water had not been released although they had been expecting it for a couple of weeks. The estate management first prioritizes water for irrigation in the estate fields, and provides water to the smallholder scheme second (Interview 44). The organization of the smallholder scheme and the fairly modernized irrigation system they access, benefits the smallholders who have managed to acquire a plot in the scheme. However, there was a general opinion among the scheme members that terms were more beneficial during the NAFCO time.

> "Situation before was good, NAFCO used to help us with farming and agricultural inputs and other things. This is not the case anymore" (Interview 3).

> "In NAFCO era there was a good relationship to investor, but after privatization it was not good. The new investor closed the river so the water could not come to smallholder's fields. And during NAFCO the water was plenty for every smallholder but right now the water regulation is controlled by the investor" (Interview 7).

Smallholders outside the irrigation scheme also highlighted issues of unreliable access to water for agriculture as a main challenge. Some of these smallholders have plots adjacent to the smallholder scheme and can utilize the discharge water from the scheme. Others have

plots adjacent to the estate discharge canal and irrigate with this water; a few have irrigation from smaller rivers and streams in the area (Chimala River for instance) and use homemade traditional irrigation systems whilst others depend on rain-fed agriculture. The challenge is that water provision is unreliable. The ones depending on discharge water from the smallholder scheme or estate can never be sure of the amount or timing of the water they will receive. These farmers have to make do with whatever water is left after having flooded the 600 ha scheme or 3,000 ha estate fields using homemade irrigation furrows. None of these have a formal right to use this water, but most are allowed to if they are not compromising the estate or smallholder scheme activities. Some of these informants said that they pay for this privilege either to the smallholder scheme management, or to the investor by informal agreements. The ones who have plots closest to the discharge can enjoy a more reliable provision than the ones located further away, there is a scramble for the available water and according to some informants this sometimes causes conflict among its users (Interview 25).

Kapunga estate is the only actor in the Kapunga area with a formal water use permit issued by the RBWB, and thus holds a formal right to abstract water from Ruaha River. Villagers are allowed to use water from the estate canals for domestic use but only through an informal understanding with the investor. Local residents do not have a claim to this water and are therefore required to settle with whatever water is provided by the estate canals, be it contaminated with bacteria or chemicals. Only 10 per cent of water users in the Ruaha river basin are organized in WUAs; the rest of the water users base their use on customary or informal arrangements (Skinner & Cotula, 2011).

Land and Water Grabbing and Neglecting Rights

The reduced access to water is the most distinctive issue affecting local livelihoods in the Kapunga area. The dispossession of water taps providing clean groundwater has left the population of Kapunga village with the irrigation channels as the only available water supply. Furthermore, although regulations set by RBWB formally guide water abstraction, the estate management is in control of the water flowing into the irrigation channels and accordingly also the water left to flow downstream in the river; this consequently affects users depending on both these sources. There is apparently no monitoring of the water abstraction conducted by the RBWO giving the estate the opportunity to decide how much or how little should flow

into the irrigation system from day to day. Franco et al.'s definition of water grabbing as a process where "powerful actors are able to take control of or reallocate to their own benefit, water resources used by local communities or which feed aquatic ecosystems on which their livelihoods depend" (2014, p. 197) seems to adequately describe the situation of deteriorating access to water experienced by the population in the Kapunga area.

> "We used to drink clean and safe water during the NAFCO time, after the new investor we only have dirty water from the canal. After the investor came he directed all the water pipes to his factory. Water from the canal have contamination, and can give typhoid" (Interview 5).

> "Water has been degraded compared to before, because we used to get water which was clear, but now we have to use water from canal which is not safe for drinking. So it has been degraded" (Interview 6).

The deprivation of access to water experienced by people in the Kapunga area conflicts with the human right to water. As mentioned in section 3.4 the right to water is defined as "…access to sufficient, safe, acceptable … water for personal and domestic use" (OHCHR, 2010). A key aspect in this definition identified by the HCHR is (amongst others), the quality of water - which must be of a standard adequate to sustain life and health. Water must be free from parasites, microbes or other harmful substances as well as being of an acceptable color, odor and taste. The water available to people in the Kapunga village does not appear to meet these criteria. The fact that a better quality source of water was made inaccessible conflicts with the key aspects of the right to water declaring that access to an existing water supply should not be interfered with, and that decisions over access to water and sanitation should be conducted through community participation. Furthermore, the WRMA outlines a clear priority of users when it comes to allocation of available water resources within the state of Tanzania. Water for personal and domestic use is stated as the number one priority, environmental flow is second and water for economic development is third (URT, 2009). The current water situation in the Kapunga area is evidently not in compliance with the priorities listed in the WRMA.

Nevertheless, in the Kapunga case the estate does not apparently breach any formal regulations because statutory rights to abstract water are derived and paid for, and the local population in the Kapunga area does not have the formal water rights as stipulated by the WRMA. Tanzanian water management does in theory recognize the legal pluralism

characterizing resource management in Tanzanian society. However, as soon as an actor- in this case the Kapunga estate, has derived formally recognized rights to water they are in a stronger position than the local population relying on customary rights to the same water. In theory, smallholders and local residents can obtain the same formal rights. The WRMA specifies that all water users should have a water user permit, which is made payable to the BWO. However, this is not adequately implemented creating a situation in Kapunga where local residents retrieve 'second-hand' access to water through the formal right derived by the estate; in turn, this leaves the investor in control of people's access to water. In the Kapunga case local residents identify the investor as the actor dispossessing them of water, which to them is the apparent truth (water was deprived from them when the investor took over the estate); however, the investor is acting within the existing legal framework. The poor implementation of policies and legislation leave weaker actors such as rural communities in a position where they are easily dispossessed of basic resources, as more powerful actors are able to accumulate.

By enclosing and privatizing such a large area of land there is increased competition over the remaining land- a scramble for land as informants called it. There is already noticeable competition over the plots with the best conditions including access to irrigation. As livelihoods are largely based on agricultural and pastoral activities, reduced access to productive resources will compromise people's food security. They depend on such assets for production of their own food as well as for securing income. The competition over resources will be further exacerbated with new generations needing to secure their livelihoods and support growing families.

As mentioned in section 3.4, one of the factors of food security is *stability* which entails that food security must persist over time and not be degraded by dispossession of resources. De Schutter also emphasized this in his minimal principles of responsible land investments:

> States would be acting in violation of the human right to food if, by leasing or selling land to investors (whether domestic or foreign), they were depriving the local populations from access to productive resources indispensable to their livelihoods. They would also be violating the right to food if they negotiated such agreements without ensuring that this will not result in food insecurity (…) States should take into account the rights of current land users in the areas where the investment is made, as well as the rights of workers employed on the farms. And they should be guided by the need to ensure the right to self-determination and the right to development of the local populations (2009, p. 2).

The dispossession of productive resources simultaneously diminishes local control over food systems because resources are placed under corporate control rather than in the hands of local populations. The link between food sovereignty and food security manifests itself in such land acquisitions; a powerful corporate actor is allowed to accumulate basic resources for the commercial production of food destined for export thus compromising people's livelihoods and development.

6.2. Basin-wide Impacts of Agricultural Activities

The Great Ruaha River is significant for the ecological conditions on the Usangu plains and is facilitating much of the economic activity in the area. In addition, it supports important habitats such as the extensive Usangu wetlands – one of the most valuable wetlands in Tanzania providing habitats for over 400 bird species, abundant flora and fauna (McCartney et al., 2007); it is designated as one of Tanzania's Ramsar sites (Lokina, Mduma, Mkenda, Hepelwa, & Ngasamiaku, 2011). The Usangu wetlands can be divided into the Western wetland-, which is seasonal, and the Eastern Wetland consisting of seasonally flooded grassland and a permanent swamp called the Ihefu Swamp (*See figure 8*). The Great Ruaha River is the major supplier of water into the Wetlands; it flows into the western wetland and then provides outflow from the Eastern wetland into the downstream Ruaha National Park. The Eastern wetland was enclosed in the Usangu Game Reserve in 2006. Before it became reserved land it supported livelihoods through various economic activities such as fishing and pastoralism, as well as being an area of cultural value used as a site for ritual prayers (Kashaigili 2003 in J. J. Kashaigili et al. (2006). The ecosystems of the Usangu wetlands and Ruaha National Park are of great importance to the population on the Usangu plains. It is estimated that up to 95 per cent of households on the plains benefit in some direct way from services provided from these ecosystems. Wetland ecosystems provide services such as: flood control, groundwater recharge, refuge for threatened fish species and toxicant retention amongst others (Shadrack, 2011).

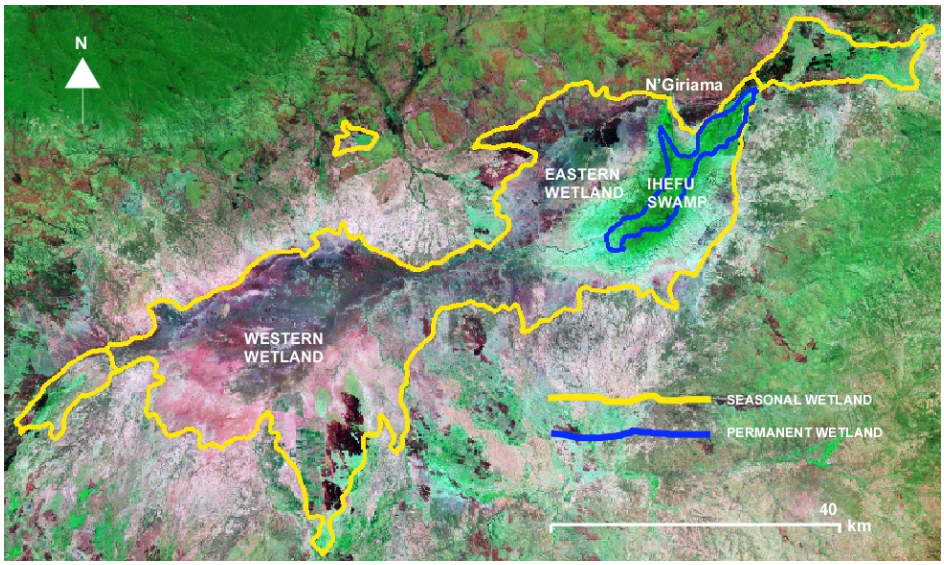

Figure 8: The Usangu wetlands (SMUWC, 2001)

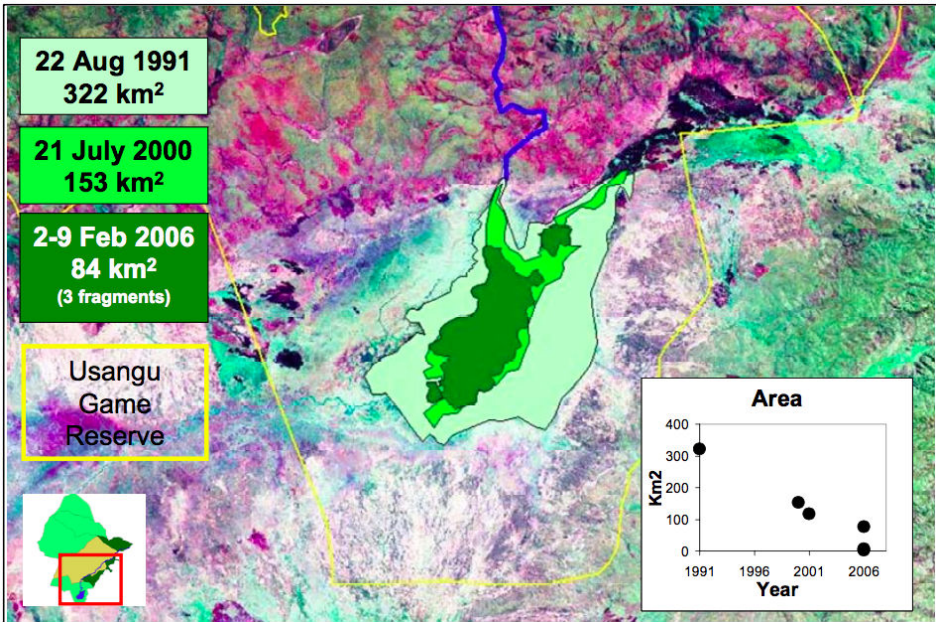

Figure 9: Changes in the extent of Ihefu Wetland 1991-2006 (Coppolillo et al., 2006)

Diminished Water Flow in the Great Ruaha River

Intensified water abstraction in the Usangu plains has contributed to catchment degradation and conflicts over limited water resources (J. J. Kashaigili et al., 2006; McCartney et al., 2007). Most evident was the sudden cessation of flow in the previously perennial Great Ruaha River during the dry season of 1993. The negative economic and ecological consequences of this event caused the prime minister to officially state that efforts had to be made to replenish the perennial flow. However, the river is still seasonal and the dry season is prolonging (Kilishweko, 2013). The cessation of flow was unanticipated and caused serious

ecological and economic impacts for downstream users (Masozera et al., 2008). The flow from the upper Ruaha River into the wetlands declined to the point that the outflow from the wetlands ceased. The government officially blamed the increasing number of pastoralists and their livestock for overgrazing in the basin, which reduced the flow in the river. It initiated a campaign for evicting pastoralists and forcibly reducing the number of livestock in the area whilst also extending the reserved area of the Ruaha National Park to include the wetlands previously supporting the livelihoods of pastoralists and fishers (Franks et al., 2013).

Abstraction of water for irrigated agriculture has later been identified as the major cause for the reduced water flow (McCartney et al., 2007; SAGCOT, 2011a; Shadrack, 2011). However, according to Shu and Villholth (2012), there is no consensus on the actual cause of the hydrological flow change in the Great Ruaha River. In their own assessment of base flow, Shu and Villhoth (2012) find a correlation between irrigation in the Usangu plains and the base flow level in the downstream area, indicating that irrigation is an important factor for the declining water flows. Additional causes to the change in water flow include population growth and change of land cover in the catchment.

J. Kashaigili (2007) points to changes in vegetation cover as a significant factor to the changes in water flow. The RIPARWIN study found that in the period 1986 – 2004, the cultivated area in the catchment increased from 121 to 874 km^2, open woodland had declined from 1,369 - 609 km^2 and closed woodland declined from 332 to 97 km^2. Such changes in land cover are responsible for increased run-off and thus negative impacts on the dry season flow (J. Kashaigili, 2007, p. 7). Moreover, the minimum dry season area of the Usangu wetlands decreased by 40 percent in the same period (*See figure 9*) (McCartney et al., 2007). Land cover changes were also noted by elders in Kapunga village when talking about changes in the area during their lifetime:

"There were more grassland [when they were children], and more bushland. We always had grass for the cattle in dry and wet season. The environment has changed due to more people, so grazing areas is used for cultivation now." "The area was greener before, the forest and trees has decreased so much, there is almost nothing now" (Interview 46).

The cessation of water flow has large ecological consequences for the aquatic ecosystem as well as for riparian biodiversity. The Great Ruaha River is the primary source of water for the southern half of the Ruaha National Park and the abruption of dry season flow has been detrimental to the biodiversity in the park. Quantifying the ecological effects of the cessation

of water flow showed that over 60 per cent of dry season habitat in the Ruaha National Park was eliminated as the Great Ruaha River dried (Masozera et al., 2008). Particularly evident was the significant mortality of fish and hippopotami as well as causing disruptions to animals depending on drinking water from the river. One of the effects from this was outbreaks of diseases such as Anthrax (J. J. Kashaigili et al., 2006, p. 6).

Water Quality

The comprehensive Sustainable Management of the Usangu Wetland and its Catchment (SMUWC) study[8] from 2001 measured water quality at several locations in the Usangu catchment. Amongst others, from the outflow of the three large-scale (then state owned) rice farms and smallholder irrigation schemes in the Usangu. The discharge water flowing out from the irrigated farms were tested and compared to the water flowing into the irrigation systems. A number of variations were evident comparing the irrigation inflows to the outflows:

- An increase in electrical conductivity (EC) of 50 – 150 percent.
- A corresponding increase in bicarbonate alkalinity of 50 – 150 percent.
- A corresponding increase in pH of 0.1 - 0.3 units.
- An increase in temperature of 3 - 5^{o}C.
- An increase in dissolved iron of 0.1 - 0.3 mg/l.
- A decrease in dissolved oxygen of 10 – 30 percent.
- An increase in dissolved organic carbon of around 50 percent.
- A slight, seasonal increase in nitrate (NO_3) of up to 0.1 mg/l.
- An increase in the matter content able to settle.
- An order of magnitude (i.e. 10 times) increase in turbidity.

(SMUWC, 2001, p. 9)

[8] A project funded by DFID conducted between 1998-2001, which investigated the nature and causes of hydrological change in the Great Ruaha River.

These results are compatible to the environment in paddy irrigation systems with high evaporation from water residing in shallow, sluggish canals. An increase in electrical turbidity indicates pollution of water. Rice cultivation typically contributes to reduced oxygen levels which can negatively influence fish habitats (WOW, 2015). The drastic increase in turbidity reflects the amount of sediments in the water. Samples taken from the wetlands show that the water flowing into and through the wetlands are of acceptable quality but in the dry season the quality of water flowing into the wetlands resembles the water discharged from the rice farms (as described by the results listed above). The quality of the water at the outflow from the wetlands is quite different to the inflow; this reflects the intense biochemical processes occurring in wetlands such as absorbing, recovering and removing excess nutrients and pollutants from water (MEA, 2005; SMUWC, 2001).

Although the wetlands act as cleaning agents for the water flowing from the agricultural area, they can also be degraded by the large supply of such water. The rivers pick up fine sediment while flowing through the irrigation systems. This material remains in suspension until flow velocities drop in the wetlands. Sediment is then deposited, causing a gradual buildup of sediments filling the swamps. Estimations done in the SMUWC study show that the buildup of sediments in the wetlands started around the time large-scale irrigation schemes in the Usangu plains (SMUWC, 2001) were established. The study also claims that turbidity in the water flowing into the wetlands has increased with the construction of large-scale rice farms in the plains leading to degradation of the fishery in the Eastern wetlands:

> This is supported by local fishermen, who say that, in the 1960s, relatively clear water with 6 to 8 different species of fish was normal, but that turbid waters, dominated by a near monoculture of catfish, became the norm during the 1970s (SMUWC, 2001, p. 21).

Basin-wide Effects of Accumulation by Dispossession

Efforts to restore the flow of the Great Ruaha River have not been as successful as hoped, the basin is still described as water stressed and the situation has not seemed to improve. McCartney et al. describe the situation of water stress as “periodic water scarcity leading to competition among users, shortfalls in some sectors and in some places environmental degradation” (2007, p.1). RBWO also referred to the basin as water stressed and emphasized

that any more irrigated agriculture should not be established in the basin due to the apparent ecological vulnerability of the river basin (Interview 47). Although there are several categories of water users in the catchment, irrigated agriculture is the largest anthropogenic consumptive use (Franks, Lankford, & Mdemu, 2004). Large-scale agricultural activities in the area have in the last years prolonged the irrigation and cropping seasons extending the actual wet season (Franks et al., 2004). According to my informant at the management of the Kapunga estate, this is done because of less available water. However such expansion has been identified as deteriorating the dry season flow into the wetlands and is thus contributing to the reduced flow of the Great Ruaha River. According to findings from the RIPARWIN study, dry season water abstraction should be reduced by 65 percent in order to maintain "the basic ecological condition of the river within the Ruaha National Park" (McCartney et al., 2007, p. 39).

Dispossession of water resources in the Kapunga area has basin-wide ramifications as well as local impacts. The impacts noticed downstream are the cumulative effects from a number of actors conducting irrigated agriculture in the Usangu basin; however, the large-scale operations can be argued to be of a more detrimental nature as their irrigation activities extend the wet season and thus adversely affect the vulnerable dry season flow. Further, the negative effects posed by large-scale estates are in turn providing fewer benefits to the local population. Resources accumulated by these actors are transformed into capital in the hands of a few multinational investors rather than for the benefit of the numbers of local smallholders in the area. Moreover, as the Great Ruaha River joins the large Rufiji River, water users further downstream are also affected by changes in the Great Ruaha (Mwakalila, 2011). The large Rufiji basin, covering 177,420 km^2 - about 20 per cent of Tanzania's land area (RBWO, 2015), supports agricultural activities, fisheries and other activities all the way through its journey to the estuary in the Indian Ocean (Hamisi, Yanda, & Majule, 2007) (*See figure 2 for map of Rufiji Basin*). It is appropriate to again remember Franco et al.'s (2013) definition of water grabbing here, as they highlight the importance of water flow for the maintenance of ecosystems on which people's livelihoods inevitably depend, thus adding an environmental aspect to the definition of water grabbing.

6.3. The State as a Key Facilitator

The Kapunga case displays a range of issues recognizable from Harvey's theory of accumulation by dispossession. The land area of the Kapunga estate was first enclosed by the Tanzanian state in the 1990s - not without controversy, as some people were already then displaced. However the estate under state-ownership seemed to be more appreciated among local people than under the current private ownership. During NAFCO time there was a better relationship among the estate management and the local population in general, both actors derived some benefits from each other. Harvey mentions privatization of state assets as a typical feature of capitalist expansion, and privatization of the Kapunga estate is an applicable example of such a process. This happened to several state owned farms and enterprises as a consequence of a widespread liberalization trend in Tanzanian politics in the 1980s (Wobst, 2001). The Tanzanian state dismissed the proposal of selling the estate to a cooperative of smallholders; this was argued to be more beneficial for local development as well as more environmentally sustainable, but the government chose to sell to a multinational agribusiness corporation. Both the local population and the press have criticized the sale saying that the estate was sold "at a throwaway price to politically connected investors" (Greco, 2015, p. 10). In doing so the state set the foundation for an unmistakable power imbalance in the Kapunga area, well in tune with the policy context of the last decades – undermining smallholders' ownership to resources and facilitating private investors' access to productive resources.

Lack of Government Responsibility

Several informants stated a discontent with the government as it is neglecting its responsibilities towards the local community, particularly in terms of providing social services such as: electricity, water, dispensary etc. It appears the government has asked the investor to provide these services for the village, although it should be the responsibility of the government. According to informants in Kapunga village promises were made with the change in ownership - the new investor would provide a dispensary and a police post, as well as electricity. Apart from a new primary school built by the investor, none of this has been provided to the village. It is unclear who made these promises - whether they came from government officials or the investor, and whether they are part of the contract between the

state and the investor. When talking to the management of the estate there seemed to be little sense of obligation toward the village in providing these things. The informant at the estate said that they had done more than they were obliged to by building a new school for the village children, as well as building and maintaining roads from the area to the closest town, Chimala. In addition he claimed they were planning on supplying water in the future as mentioned above. However, it is clearly stipulated in the NAWAPO that it is the responsibility of district governments to assess water demand in the district and include this in basin plans, thus arranging for the supply of water for domestic users (URT, 2002).

The representative from the estate management said that they had also been requested to supply electricity to the village, but the government was now in a process of extending the grid to cover Kapunga village. This appeared to be true as poles were being set up in the area just as I was visiting. However, villagers had little faith that any electricity would actually be provided to them beyond the installment of the poles, stating that this is just an act to win votes for the upcoming election. It remains to be seen whether the villagers will actually have access to electricity, or whether they are right in their assumption that this is just an empty promise in order to win over voters prior to the election. The government is apparently neglecting certain responsibilities towards the local population and seems to rely on the private investor to supply basic services to the local communities. As evident in the Kapunga case, providing such services is not something that the investor has an obligation to provide. Agreements on investors' responsibility for local development can often be specified in contracts between state and investor. In the Kapunga case there does not appear to be any clear understanding of such obligations and the contract has not been made available to public scrutiny.

Power and Access

As Ribot and Peluso's (2003) analysis of access proposes, looking at the chain of benefits and beneficiaries of a resource - for instance water, and the power relations among these, can reveal which mechanisms the different actors are able to draw on in order to obtain access to water. Similarly, how political-economic relations enable existing power relations and facilitate the accumulation of resources for certain actors can also be revealed. Several categories of water users or beneficiaries can be identified in the Kapunga area and further

throughout the Great Ruaha River basin: large-scale irrigators, small-scale irrigators, domestic users, pastoralists, fishers, Ruaha National Park and TANESCO. Access to water represents various benefits to all these users; as water resources are vulnerable in this water stressed area, the access and activities of one user has impacts on the access of other users.

Large-scale irrigators

For large-scale agricultural actors, such as the Kapunga estate, available water resources facilitate commercial rice production and thus generate capital for the investors. In the case of the Kapunga estate, access to water for irrigation and operation of the estate provide commodities for export and therefore accumulates profit.

Direct gain of benefits are derived through following the formal legislation of applying for water permits to the designated state entity - in this case the RBWO. Water permits are given and in order to maintain this access an annual fee has to be paid. Access to capital has enabled the investor to acquire the land area and also the opportunity to gain a right-based access to water. Access to technology is enabled through access to capital; for the Kapunga estate, capital facilitated investment in a rationalized irrigation system that increases production on the estate as well as improves infrastructure allowing for access to national and international markets for the commodities. Capital also facilitates access to labor; the investor can attract educated laborers with knowledge of agricultural science. Since the 1980s, the government of Tanzania has emphasized the need for private investors in the agricultural sector in order to attract foreign capital, export earnings, as well as contribute to a modernization of the sector (Wobst, 2001). A foreign private investor with access to capital thus has a certain favorable position among authorities. Access to authority reinforces and enables a rights-based mechanism (Ribot & Peluso, 2003) highlighting the twofold relationship between access and power mentioned by Rantala et al. (2013).

Households, smallholder irrigators and pastoralists

Water for domestic use represents a basic need - people cannot live in the area without access to water. The quality of the water they access is pivotal in determining their standard of living; for instance, water of poor quality can cause bad health conditions which many people in the Kapunga area experience. Also, knowing that a more powerful actor is in control of the water they depend on is seemingly generating a degree of insecurity for locals.

For smallholders, having access to water for irrigation provides improved yields and generate a more reliable income. Based on my findings the ones who had access to irrigation were able to produce better and more reliable yields whereas rain-fed farmers stated that they could never know from year to year how much rain would come and thus how the quality of their harvest would turn out. Hence access to water for irrigation represents stability and more secure livelihoods for smallholders in terms of financial stability and food security. Also for pastoralists water is the foundation to their livelihood in addition to access to pasture. When water is scarce, they will have to reduce the amount of livestock, which in many ways is their 'bank'. For Sukuma people, livestock represent status and can be used as payment for services and as dowry in marriage, and are thus essential to their cultural identity. The benefits of water for the local people in the Kapunga area are therefore deeply connected to supporting their livelihoods. For domestic use, agricultural use and pastoral activities, access to water lays the foundation for financial stability, food security, identity and cultural activities and not least the health and prosperity of households.

As mentioned earlier, residents in the Kapunga area do not hold formal rights to use water, only the estate does which means that they cannot hold the investor responsible if the irrigation canals one day run dry or are polluted with chemicals. Current access to water is derived through a 'second hand' right to use the estate's water, based on an informal agreement where the estate management permits people to use this water. According to informants in the Kapunga area they have never had to pay to use water for the household, and it is seemingly in this last decade that people have been experiencing a deteriorating access to water for domestic use. Households in rural Tanzania mainly base their access to water on customary arrangements; the level of attendance in WUAs is low and thus their right to use water can easily be compromised in competition with actors holding statutory rights (Skinner & Cotula, 2011) which explains the situation for domestic water users in the Kapunga area. Smallholders in the irrigation scheme however, do pay fees to access water for irrigation and thus have a certain claim to water. This can still be called 'second hand' access as the water fees are paid to the investor and the investor determines the price. As the smallholder irrigation scheme is part of the Kapunga estate the water allocation permitted to the estate by the RBWB is estimated with the irrigation of the smallholder scheme in mind. However, as the smallholders do not hold an independent right to water for irrigation, the estate is in a position where it can determine to give less priority to the smallholder scheme when water is scarce.

Domestic users, smallholders and pastoralists do not have access to the same structural and rational mechanisms making up what Ribot and Peluso call the bundles of power enabling the investor to gain, maintain and control access to water. This power imbalance is facilitated by political-economic conditions favoring the presence of private actors with access to capital in the agricultural sector. "Different political-economical settings change the terms of access and may therefore change the specific individuals or groups most able to benefit from a set of resources" (Ribot & Peluso, 2003, p. 158). This is evident in the Kapunga case, which shows how access to both land and water has changed with privatization of the estate. The neoliberal tendencies characterizing Tanzanian policies since the 1980s have led to a constraint in access to resources for local residents as private investors have been given room to accumulate resources. Rural development and the empowerment of smallholders emphasized during Nyerere's time have since been undermined by economic liberalization (Wobst, 2001). This liberalization supports what Anseeuw et al. (2012) identify as two of the factors shaping the rush in private and foreign actors acquiring land. Namely, weak democratic governance – policies failing to incorporate vulnerable groups such as rural populations and their interests, and failing to protect people's rights to resources as well as sidelining smallholder agriculture - giving little credibility to small-scale traditional agricultural practices although they in fact constitute the livelihoods of around 70 per cent of the Tanzanian population (Anseeuw et al., 2012).

Ruaha National Park and TANESCO

Further beneficiaries such as the Ruaha National Park and TANESCO are both actors of national significance as their activities directly impact national economy. Ruaha National Park supports tourism, a growing sector in Tanzanian economy. Ruaha National Park is dependent on a certain water flow in order to maintain the biodiversity in the park. Tourism in Tanzania is widely based on safari and wildlife tourism and maintaining the rich biodiversity of the country is important to support this sector (WTTC, 2014). The cessation of the Great Ruaha River dry season flow into the park is thus threatening the basis of revenue from tourism in the park. In addition, the reduced water flow into TANESCO's hydropower stations contributed to a series of power shortages affecting the whole country (Mtahiko et al., 2006). The realization that the change in water flow in the Great Ruaha River had consequences of such economic concern led the prime minister to publicly state on the

Rio+10 conference in 2001 that the perennial flow of the river had to be restored by the year 2010 (Lankford, van Koppen, Franks, & Mahoo, 2004) a goal that has not yet been reached.

Policy and Resource Management: Gaps and Weaknesses

The efforts of restoring the dry season flow in the Great Ruaha River after its cessation in the 1990s led to an increased emphasis of the importance of water management and IWRM was progressively adopted in the years following this incident. IWRM is perceived to be a management strategy better able to integrate the needs of a range of different users within a water basin, as well as the legal pluralism involved in governing these users (Tarimo, 2014). The accomplishments of IWRM strategies in the Rufiji and Great Ruaha River basins have been discussed in other studies (Kangalawe & Liwenga, 2005; Sokile et al., 2003; Sokile et al., 2005) and the general experiences so far seem to be that IWRM is difficult to achieve particularly in a political environment where foreign capital prevails. With several categories of users practically competing over water, the notion of *water as an economic good* seem to have precedence over *the right to water* as specified in the WRMA and not least the human rights. Efforts to attract private agricultural investment through the SAGCOT initiative in order to increase agricultural production in the Southern agricultural growth corridor, which covers large parts of the Rufiji basin, display the priorities of the government. It provides resources to private actors to accumulate rather than focusing on securing the right to resources – such as water for the local population, which is already noticing the consequences of extensive agricultural production in the basin. SAGCOT is promoting (amongst others) the Mbarali cluster located within the Usangu plains as having superb conditions for rice production and has pointed to the Kapunga estate as an example to be followed (URT, 2012). Experiences from the Kapunga area, and impacts to livelihoods as well as the pressure placed on ecosystems due to LSAIs, provide reasons to be skeptical about the developments promoted by SAGCOT. In particular the Mbarali cluster-, which is already, water stressed, should be considered vulnerable to the increased pressure that irrigated agriculture can place on the ecosystem. Further, management on the Kapunga estate is looking for more viable crops than rice as issues such as decreased access to water impede paddy production.

7. Conclusion

The objective of this thesis was to assess the impacts LSAIs can pose to livelihoods and ecosystems. It looked at the Kapunga estate in Mbarali district and further applied the findings from this case to the broader picture of LSAIs especially within the current Tanzanian policy context. The thesis assessed these impacts with a set of research questions formulated as follows:

- **How are local livelihoods in the Kapunga area affected by the Kapunga estate?**
- **What basin-wide implications to ecosystems can be related to LSAIs - such as the Kapunga estate?**

These questions were answered by coupling empirical data - primary and secondary sources, from the Kapunga case with a theoretical framework based on Harvey's theory of accumulation by dispossession supplied with aspects from the theory of access and legal pluralism. With the Tanzanian policy context in mind, the thesis looked at some relevant policies and legislations, which included some international frameworks, social standards and alternatives relevant in the debates of land acquisitions.

The case of the Kapunga estate and its effects on adjacent livelihoods are in many ways not unique, and the evident issues in the relationship between the local population and the estate management are thus not surprising. The case displays a situation that can be easily explained within the theory of accumulation by dispossession. It is similar to what a number of rural populations have experienced as capitalism has expanded into their areas – namely dispossession from productive resources that their livelihoods depend on – in the Kapunga case the most evident is the dispossession of access to clean water. This dispossession happened in the change of ownership of the Kapunga estate; water taps providing groundwater to Kapunga village were removed and the groundwater was instead directed to the estate. Villagers in Kapunga were thus left with the water in the irrigation canals as the only available source of water leading to health issues such as prevalent diarrhea and typhoid. Structural issues of policy and legislation enable this situation in which the local population are deprived of water.

An evident issue is the fact that only the estate holds a formal water user permit as prescribed by national legislation. The existing WRMA recognizes the legal pluralism characterizing resource management within the country and therefore also customary rights to water, as well as the human right to water; however, formally derived water user rights prevail in water allocation. As pointed out by Maganga et al (2004) in situations of scarcity and competition over a resource, formal rights and arrangements seem to be the only ones accepted by authorities. In the Kapunga case, the estate provides an informal 'second-hand' right to use the water in the irrigation canals to the villagers, which leaves the local population relying on a resource controlled by a private investor. This is a situation of accumulation by dispossession corresponding to the term resource grabbing, and more specifically water grabbing.

Water rights are intimately linked to land rights and although water issues are the most pressing and obvious issue affecting livelihoods in the Kapunga area, there is also an evident scramble for land which has been exacerbated by the enclosure of 7,380 ha for the Kapunga estate. Within the estate borders only 3,000 ha are actually under cultivation whereas the rest is left idle. Before privatization, this land was made available for the local population to cultivate. Moreover the estate borders cross into what is formally recognized as village land. Although this has been acknowledged as a mistake by the state, the border dispute has not been solved in reality as the estate continues to hold on to this land pending some sort of compensation from the Tanzanian government. Further, this border dispute entailed the forced eviction of 18 households who have never received any compensation for their loss. Although the government has admitted that 1,700 ha of the estate land do in fact rightfully belong to Kapunga village, the dispute has been left unsolved for years. This again displays an evident tendency towards recognizing land rights of a powerful private investor over village land rights.

As is increasingly recognized, LSAIs are not only causing direct impacts to local livelihoods but also to vital ecosystems. This research shows that extensive irrigated rice production in the study area is putting pressure on the aquatic ecosystem in the Ruaha River Basin. The Ruaha River has experienced a cessation of dry season flows since the expansion of large-scale agriculture upstream in the basin. Although irrigated agriculture is done in both small and large-scale, the large-scale farms have expanded cultivation activities well into the dry season whereas smallholders cultivates within the rainy season when the water situation is

less vulnerable. The reduced dry season flow has been attributed to dry season irrigation activities conducted by the large-scale estates, including the Kapunga estate. This is a form of dispossession of resources not only affecting local livelihoods, but also having a regional and national impact as the whole basin and all users are affected. The aquatic ecosystem in the Ruaha River basin supports extensive biodiversity serving as a vital water source in the Ruaha National Park. Further it supports national hydropower in the Mtera and Kidatu dams, as well as livelihoods throughout the basin, which are largely reliant on agricultural and pastoral activities as well as some fisheries.

The land and water issues impacting local livelihoods and ecosystems in the Kapunga case show how a financially strong actor can easily accumulate access to resources although there are already existing rights and claims to these resources. As explained by the theory of access, access to capital, technology and other assets enables access to productive resources. This displays the inherent relationship between power and access. As the discussion in section 6.3 reveals, the state apparatus has a central role in facilitating this process. This is evident in the Tanzanian context as policies are progressively favoring the presence of private investors and foreign capital in the agricultural sector, despite the tendencies of non-compliance with legislations acknowledging the rights of the rural population to productive resources. The SAGCOT initiative is a clear testimony to this trend seeking to give out large areas of arable land and associated resources to private investors in order to increase productivity of the agricultural sector. This will inherently entail the dispossession of access to resources for local livelihoods as most Tanzanian land falls under the category village land. Such developments run the risk of adding to the trend of local peasant populations losing control over resources and thus compromising people's human right to food and water - a development that is critiqued by proponents of food sovereignty. Such developments not only fail to empower the large portion of smallholder farmers in Tanzania and the rest of the world, but also support a food system that compromises ecological premises. The food sovereignty discourse briefly examined in chapter 3 presents an alternative concept to the trends of increased commodification and accompanied grabbing of productive resources, which can be argued to better safeguard the large number of smallholders in Tanzania and thus contribute to enhanced productivity in the agricultural sector while supporting rural development.

Increased competition over resources became evident decades ago with the expansion of large-scale agricultural estates in the Usangu area. Population growth and agricultural expansion have eventually resulted in evident stress to the productive resource facilitating agricultural activities. Hence, further agricultural development in the area should be conducted carefully in a sustainable manner so as not to exacerbate the vulnerable situation which ecosystems and livelihoods are increasingly experiencing. In this research, informants from both the RBWO and the Kapunga estate management unmistakably stated that any further large-scale agricultural activities should not be established in the area. These statements together with existing empirical evidence of the water stressed situation in the basin should be taken as cautionary inputs by the Tanzanian government in planning and facilitating increased private agricultural investment in the Mbarali cluster as well as the whole SAGCOT area. The findings in this thesis suggest that the developments envisaged by the Tanzanian government together with the partners in the SAGCOT initiative are risking the livelihoods of local populations. Their rights to resources are in danger of being deteriorated and ecosystems supporting both livelihoods and nationally important sectors such as energy and tourism are being compromised.

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Appendix 1: Interview guides

Interview guide, farmers, pastoralists and fishers in Kapunga area:

- Background:

Age, Sex, role in household

How many household members?

How long have you lived in this area?

- Farming:

Only income-generating activity?

How many ha/acres do you cultivate, which crop?

Challenges to farming activities?

Have you experienced conflicts between other groups in the area? Pastoralists, other farmers, estate managers?

- Livestock:

Only income-generating activity?

How many animals do you have?

Challenges to livestock keeping?

Have you experienced conflicts between other groups living in the area? Farmers, other pastoralists, estate managers?

- Fishing:

Do you have any other income-generating activities than fishing?

Are you dependent on fishing to contribute to your household?

How long have you been fishing in this area?

Where do you fish?

Have you noticed any changes during this time? On your catch? Size of fish, amount of catch, prevalence of different species?

Any changes in the water sources during your time?

Dry and wet season changes?

Have you had any conflicts with the estate due to fishing activities?

- Water access, livelihoods:

Do you have adequate access to water for cultivation / animals? Also in dry season?

Do you have adequate access to water for domestic use?

Where do you get water from? River, which river? Canal?

How is the quality of the water? Amount of water in the river?

Has this changed during the last years? (Since you've been here)

Have you experienced degradation of water sources in your time here?

- Kapunga estate:

How is the relationship between the estate and the community?

Privatization of the company, any noticeable changes with change in ownership in 2006?

Meaning about the estate, and their activities.

Interview guide elders, Kapunga village:

- Background:

How old are you?
How long have you lived in Kapunga?

- History of Kapunga area:

- How was life in Kapunga village when you were young? What are the main differences?
-Were people farming rice at that time as well?
-Was there as many paddy plots as there are now?
-How were the size and the population of the village then?
-How was the nature and vegetation around this area?

-Where did you fetch water back then?
-How was the amount of water?
-Can you remember if the rainy season was good back then? Has it changed over the years?
-How was the state of the Ruaha River? Seasonal or perennial?
-How was the amount of water in the river? Has this changed?

- History of Kapunga Estate:

- Do you remember the time before there was an estate in Kapunga, before NAFCO?
What happened when the estate was established? Did the village benefit from the estate?
- How was the NAFCO time?
- What happened when the government sold the estate to ETG?
-Was the village included in the process?
-How was the village affected by the change in ownership?

Interview guide, Kapunga Estate

- production on the estate:

-How many ha do you cultivate?
-When does the cultivation activities start and when do you harvest? (How is the schedule, in terms of applying fertilizer, herbicides, and pesticides)
-How much do you produce from this?
-Which varieties do you use?

-What do you consider as main challenges to your production?
-Any pests or diseases to your crops? How do you combat them?
-Are there any regulations from the state on which or how much pesticides you are allowed to use?

-What is the plan for the areas that are left idle? Are you planning on expanding cultivation?

- Water use:

-Do you irrigate the whole area in production?
-How much water do you have the right to abstract from the river?
-Do you receive enough water?

-Does the amount of water you are allowed to abstract change from season to season/ year to year?

-Do you abstract water the whole year? / What are the regulations for abstraction in wet and dry season?
-Approximately how much water do you use in your fields?
-Are there any requirements on how much you have to release back into the river?
-Do you have access to groundwater on the estate?

-The estate has the water abstraction right for the whole area, how do you manage the water for smallholder irrigation scheme?
- Villagers use canals as source for domestic water, how is the arrangement between estate and local domestic users? - Does this cause a problem for you?

-Do you give notice to water users before closing canals or spraying chemicals close to the canals?

- Relationship to smallholders and surrounding villages:

-How is the relationship between the Estate and nearby villages?
-Is it important to the estate to maintain a good relationship to villagers?

-Was the estate obliged to contribute to any development within the local communities when buying the estate? –Dispensary, water, electricity, school etc.?

- Closing:

What is your perception on the water situation in the Ruaha basin?

In regards to the available water resources in the area, and the amount of water needed for irrigation. Do you think it will be feasible to expand the amount of irrigated area in the Ruaha basin?

Information about the company, who are the investors, international or Tanzanian?

Appendix 2: Olivier De Schutter's Minimum Human Rights Principles of Responsible Land Investments

1. *The negotiations leading to investment agreements should be conducted in full transparency, and with the participation of the local communities whose access to land and other productive resources may be affected as a result of the arrival of an investor. In considering whether or not to conclude an agreement with an investor, the host government should always balance the advantages of entering into such an agreement against the opportunity costs involved, in particular when other uses could be made of the land available, which could be better conducive of the long-term needs of the local population concerned and with the full realization of their human rights.*

2. *In principle, any shifts in land use can only take place with the free, prior and informed consent of the local communities concerned. This is particularly important for indigenous communities, in view of the discrimination and marginalization they have been historically subjected to. Forced evictions should only be allowed to occur in the most exceptional circumstances. They are only allowable under international law when they are in accordance with the locally applicable legislation, when they are justified as necessary for the general welfare, and when they are accompanied by adequate compensation and alternative resettlement or access to productive land. States should ensure, prior to carrying out any evictions or shifts in land use which could result in depriving individuals from access to their productive resources, that all feasible alternatives are explored in consultation with the affected persons, with a view to avoiding, or at least minimizing, the need to resort to forced evictions. In all cases, effective legal remedies or procedures should be provided to those who are affected by eviction orders.*

3. *In order to ensure that the rights of the local communities will be safeguarded at all times, States should adopt legislation protecting these and specifying in detail the conditions according to which shifts in land use, or evictions, may take place, as well as the procedure to be followed. Moreover, States should assist local communities in obtaining collective registration of the land they use, in order to ensure that their rights will be enjoy full judicial protection. Such legislation should be designed in accordance with the Basic Principles and Guidelines on Development-based Evictions and Displacement presented in 2007 by the former Special Rapporteur on the right to adequate housing (A/HRC/4/18, annex I), as well as with General Comment No. 7 (1997) of the Committee on Economic, Social and Cultural Rights on the right to adequate housing (article 11.1): forced evictions (E/1998/22, annex IV).*

4. *Investment agreement revenues should be used for the benefit of the local population. Investment contracts should prioritize the development needs of the local population and seek to achieve solutions which represent an adequate balance between the interests of all parties. Depending on the circumstances, arrangements under which the foreign investor provides access to credit and to improved technologies for contract farming, or against the possibility to buy at predefined prices a portion of the crops produced, may be preferable to long-term leases of land or land purchases.*

5. *Host States and investors should establish and promote farming systems that are sufficiently labor intensive to contribute to employment creation. Labor-intensive modes of production can be highly productive per hectare. Investment agreements should contribute to the fullest extent possible to reinforcing local livelihood options and in particular provide access to a living wage for the local population involved, which is a key component of the human right to food.*

6. *Host States and investors should cooperate in identifying ways to ensure that the modes of agricultural production shall respect the environment, and shall not accelerate climate change, soil depletion, and the exhaustion of freshwater reserves. Depending on the local conditions, they may have to explore low external input farming practices as a means to meet this challenge.*

7. *Whichever the content of the arrangement, it is essential that the obligations of the investor be defined in clear terms, and that these obligations are enforceable, for instance by the inclusion of pre-defined*

sanctions in cases of non-compliance. For this mechanism to be effective, independent and participatory ex post impact assessments should be made at pre- defined intervals. The obligations of the investor should not be limited to the payment of rents, or – in the case of land purchases – to a monetary sum. They should include clear and verifiable commitments related to a number of issues which are relevant to the long-term sustainability of the investment and to its compliance with human rights. In particular, such commitments may relate to the generation of local employment and compliance with labor rights, including living wages, as far as waged employment is concerned, or to the inclusion of smallholders through properly negotiated outgrower schemes, joint ventures or other forms of collaborative production models ; and to the need to make investments in order to ensure that a larger portion of the value chain can be captured by the local communities, for instance by the building of local processing plants.

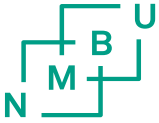
8. *In order to ensure that they will not result increase food insecurity for the local population, particularly as the result of increased dependence on international markets or food aid in a context of higher prices for agricultural commodities, investment agreements should include a clause providing that a certain minimum percentage of the crops produced shall be sold on local markets, and that this percentage may increase, in proportions to be agreed in advance, if the prices of food commodities on international markets reach certain levels.*

9. *Impact assessments should be conducted prior to the completion of the negotiations, in order to highlight the consequences of the investment on the enjoyment of the right to food through (a) local employment and incomes, disaggregated by gender and, where applicable, by ethnic group ; (b) access to productive resources of the local communities, including pastoralists or itinerant farmers ; (c) the arrival of new technologies and investments in infrastructure ; (d) the environment, including soil depletion, the use of water resources and genetic erosion; (e) access, availability and adequacy of food. Only through such impact assessments, which should include a participatory dimension, can it be ensured that the contracts providing for the lease or sale of land will distribute their benefits equitably between the local communities, the host State, and the investor.*

10. *Indigenous peoples have been granted specific forms of protection of their rights on land under international law. States shall consult and cooperate in good faith with the indigenous peoples concerned in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources.*

11. *Agricultural waged workers should be provided with adequate protection and their fundamental human and labour rights should be stipulated in legislation and enforced in practice, consistent with the applicable ILO instruments. Increasing protection of this category of workers would contribute to enhancing their ability and that of their families to procure access to sufficient and adequate food.*

(De Schutter, 2009, pp. 13-15)



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