

UNIVERSITY OF GOTHENBURG
School of Global Studies



Chinese Involvement in Mozambique

Sino-Mozambican Relations Understood through the Perspectives of
Farmers in Boane and Xai-Xai

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ABSTRACT

Sino-African relationships have become increasingly important for African development. Chinese investments and aid have provided an alternative to the development model presented by traditional Western partners. One African country where Chinese involvement has become significant is Mozambique.

The aim of this study is to understand how farmers in the Mozambican towns of Boane and Xai-Xai perceive Sino-Mozambican relations and how Chinese investments have had an impact on the farmers' lives. This is studied within the theoretical framework of sustainable development. The study contributes to the existing field of research with local perspectives. In order to highlight local perspectives, qualitative interviews with farmers in Boane and Xai-Xai have been conducted. The results show how the farmers have been very differently affected by the Chinese investments and that their perceptions of Sino-Mozambican relations are divided. It is argued that access to land, productive potential and ability to meet basic needs are the themes that are most central for shaping the farmers' perceptions of Sino-Mozambican relations. It is also argued that the different outcomes for the farmers are not determined by differences in social or political power among the farmers, but by other factors, such as Chinese motives and strategies.

Keywords: *Sino-Mozambican Relations, Sustainable Development, Local Perspectives, Boane, Xai-Xai, Agricultural Investments*

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With an academic background in global studies I have developed a special interest for emerging powers and their role in the changing nature of global relations. This background has influenced this study to focus on one emerging power in particular, China, and its growing presence on the African continent.

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LIST OF ABBREVIATIONS

ARPONE	Associação dos Agricultores e Regantes do Bloco de Ponela para o Desenvolvimento Agro-Pecuário e Mecanização Agrícola de Xai-Xai
CITTAU	Centro de Investigação e Transferência de Tecnologias Agrárias do Umbelúzi
FDI	Foreign Direct Investments
FOCAC	Forum on China-Africa Cooperation
FONGA	Forum de ONGs Nacionais de Gaza
IFAD	The International Fund for Agricultural Development
NGO	Non-Governmental Organization
ONG	Organização Não Governamental
RBL	Regadio do Baixo Limpopo
UNAC	União Nacional de Camponeses
WCED	World Commission on Environment and Development

TABLE OF CONTENTS

ABSTRACT	I
ACKNOWLEDGEMENTS.....	II
LIST OF ABBREVIATIONS.....	III
1. INTRODUCTION.....	1
1.1 BACKGROUND TO SINO-MOZAMBICAN RELATIONS.....	1
1.2 PREVIOUS RESEARCH AND PROBLEM DESCRIPTION.....	2
1.3 BACKGROUND TO CHINESE INVOLVEMENT IN BOANE AND XAI-XAI.....	5
1.4 DELIMITATIONS OF THE STUDY	7
1.5 RELEVANCE TO GLOBAL STUDIES.....	7
2. AIM AND RESEARCH QUESTIONS	8
2.1 AIM.....	8
2.2 RESEARCH QUESTIONS	8
3. THEORETICAL FRAMEWORK	8
3.1 ONTOLOGY AND EPISTEMOLOGY	9
3.2 SUSTAINABLE DEVELOPMENT	10
3.2.1 ECONOMIC SUSTAINABILITY	11
3.2.2 SOCIAL SUSTAINABILITY.....	12
3.2.3 ENVIRONMENTAL SUSTAINABILITY	14
4. RESEARCH DESIGN AND METHODOLOGY.....	15
4.1 RESEARCH DESIGN.....	15
4.2 EMPIRICAL DATA.....	15
4.2.1 DATA COLLECTION.....	16
4.3 DATA ANALYSIS.....	19
4.3.1 ANALYTICAL FRAMEWORK	19
4.3.2 DATA MANAGEMENT	20
4.3.3 DESCRIPTIVE ACCOUNTS.....	20
4.3.4 EXPLANATORY ACCOUNTS	21
4.4 CONSIDERATIONS	22
4.4.1 ETHICAL CONSIDERATIONS	22
4.4.2 CHALLENGES OF THE STUDY.....	23
4.4.3 VALIDITY AND RELIABILITY	23

5. RESEARCH FINDINGS	24
5.1 PERCEPTIONS	24
5.1.1 GROUPS WITHIN THE THEME OF PERCEPTIONS	27
5.2 ECONOMIC SUSTAINABILITY	28
5.2.1 GROUPS WITHIN THE DIMENSION OF ECONOMIC SUSTAINABILITY	31
5.3 SOCIAL SUSTAINABILITY	31
5.3.1 GROUPS WITHIN THE DIMENSION OF SOCIAL SUSTAINABILITY	37
5.4 ENVIRONMENTAL SUSTAINABILITY	38
5.4.1 GROUPS WITHIN THE DIMENSION OF ENVIRONMENTAL SUSTAINABILITY	40
6. ANALYTICAL DISCUSSION	41
6.1 ECONOMIC SUSTAINABILITY	41
6.2 SOCIAL SUSTAINABILITY	42
6.3 ENVIRONMENTAL SUSTAINABILITY	43
6.4 PERCEPTIONS	43
6.5 LINKS AND PATTERNS	43
7. CONCLUSIONS	46
8. CONTRIBUTION TO THE FIELD OF RESEARCH.....	48
9. FINAL REFLECTIONS.....	49
LIST OF REFERENCES	50
APPENDICES	53

1. INTRODUCTION

Sino-African relations have become increasingly important for African development. One African country where Chinese involvement has become significant, especially in the last ten years, is Mozambique (Brautigam, 2009; Alden, Chichava and Roque, 2014). This study focuses on perceptions and experiences from farmers in Mozambique, and studies these within the theoretical framework of sustainable development. The aim is to contribute with knowledge based on local perspectives to gain a better understanding of Sino-Mozambican relations.

1.1 BACKGROUND TO SINO-MOZAMBICAN RELATIONS

For the last sixty years the African continent has received aid from wealthier countries. The recipe for effective aid has varied and the aid has been focused on different areas such as infrastructure and industry, integrated rural development programs, basic human needs, structural adjustment programs, governance and democracy, microfinance and conditional cash transfers. Despite these different models of development, Africa as a continent is still marked by poverty (Brautigam 2009: 11).

In November 2006 delegations from forty-eight African states gathered in the Chinese capital of Beijing for the Beijing summit of the Forum on China-Africa Cooperation (FOCAC). The Chinese president at the time, Hu Jintao, outlined a plan for a new strategic partnership and a deepening of economic cooperation between China and African countries. (Brautigam 2009: 1).

The focus of this study is Mozambique, one of the countries involved in this new partnership. Mozambique also has an established relationship with traditional partners. The Bretton-Woods institutions, Western donors and non-governmental organizations (NGOs) have had a strong influence on government decision-making on macro-economic policies. The Chinese cooperation has been welcomed by government officials in Mozambique because of a possibility to offer a different view on development than that of the traditional development partners (Alden, Chichava and Roque 2014: 1).

Although intensified after the 2006 Beijing summit, the Sino-Mozambican relations date back to the 1960s when China gave military and financial support to Mozambican liberation organizations and the liberation party Frelimo. In the 1980s a trade and aid relationship slowly emerged. It continued into the 1990s, and later flourished in the 21st century with several economic agreements (Robinson 2012: 6-7). The contemporary Sino-Mozambican

cooperation is diverse and can be found in many different areas of the society (Alden, Chichava and Roque, 2014: 1-20).

1.2 PREVIOUS RESEARCH AND PROBLEM DESCRIPTION

The previous academic research on Chinese involvement in Mozambique is relatively limited but can be organized within four main categories; (i) General mapping and understanding of Sino-Mozambican relations, (ii) Mapping Chinese motives, (iii) Examining different discourses surrounding Sino-Mozambican relations, and (iv) Case studies.

The first category includes scholars who discuss various aspects of Chinese involvement in Mozambique, and map the historical and contemporary relations (Roque, 2009; Chichava 2014a; Alves, 2014; Jansson and Kiala, 2009; Njal, 2012; Chichava and Alden, 2014; Alden, Chichava and Roque, 2014). Roque (2009) provides a general picture of Sino-Mozambican relations with a focus on different Chinese provinces and their role in Africa. She accentuates the multilayered engagement between the two countries. Chichava (2014a) maps the different areas of cooperation and the structure of Chinese foreign direct investment (FDI) in Mozambique. Alves (2014) presents an overview of the Chinese banking system in Mozambique. Jansson and Kiala (2009) provide a background and overview of Chinese investments in different areas in Mozambique. They also present challenges related to the Chinese investments, such as Chinese involvement in illegal logging in the forestry industry and illegal fishing. Njal (2012) focuses on Chinese involvement in the sports sector and particularly on the Maputo Games. Chichava and Alden (2014) discuss several topics related to Chinese involvement in Mozambique and they provide a critical reflection on the emerging relationship between the countries, discussing Chinese land grabbing in Mozambique, a possible Chinese master plan for expansion on the African continent, and the complicated labour relations within the Chinese companies in Mozambique. Alden, Chichava and Roque (2014) present an overview of Sino-Mozambican relations. All these scholars have had an important role in shaping the background knowledge, and have contributed to the field of research by mapping Chinese involvement in Mozambique, generally or in specific areas.

In the second category, scholars discuss China's motives for engaging in Mozambique (Robinson, 2012; Stensrud-Ekman, 2014; Bunkenborg, 2014; Tembe and Xu, 2013). Robinson (2012) discusses the nature of Chinese involvement in Mozambique and argues that it is more economic and diplomatic than military and strategic. He also argues that the Chinese engagement in Mozambique is driven by access to the Mozambican natural resources

and that the Chinese are not interested in Africa's long term development. Stensrud-Ekman (2014) analyzes the Chinese motives for engagement in the agricultural sector in Mozambique, and as opposed to Robinson (2012), argues that there are no signs that the Chinese are motivated by accessing natural resources to secure their own national food security. Bunkenborg (2014) analyzes whether there is a "master plan" for Chinese involvement in Mozambique and he comes to the conclusion that there does not seem to be such a plan, but that Chinese involvement is still systematic. Tembe and Xu (2013) investigate the motives for Chinese FDI in Mozambique and argue that the demand for resources is the main motive for their involvement in Mozambique. These scholars contribute with complex analyses of Sino-Mozambican relations. They present arguments which sometimes complement and sometimes contrast each other. Their work shows that the motives behind Chinese involvement in Mozambique can be viewed from several different positions and that there is no simple way of explaining the Sino-Mozambican relationship.

The third category includes research conducted on different discourses surrounding the Sino-Mozambican relations (Chichava, 2008; Feijó, 2014; Lagerkvist, 2014). Chichava (2008) compares the Mozambican government's views and perceptions on Sino-Mozambican relations with the civil society's views and perceptions. He argues that there is a gap between the two sides. The political elite is often positive and enthusiastic when it comes to the Chinese presence in Mozambique, while the civil society presents a more doubtful view. Feijó (2014) does a comparative analysis of discourses of Chinese involvement in Mozambique from the point of view of the government, social-media actors, and Mozambican workers at Chinese companies in Mozambique. He states that the government has a positive view of the Chinese involvement in Mozambique while social media and workers have a critical perspective. Lagerkvist (2014) studies the civil society's views and how they perceive their room to maneuver in the context of a growing Sino-Mozambican relationship. His conclusion is that the already tense dynamic between civil society and state is increasing because of growing Chinese involvement in Mozambique. These scholars show that there is not only complexity in understanding the Chinese motives behind their involvement in Mozambique, but that there is also complexity in how different groups in the Mozambican society perceive Sino-Mozambican relations.

The fourth and final category consists of case studies by a number of scholars (Chichava, Durán and Jiang, 2014; Chichava, 2014b; Nielsen, 2014; Chichava and Durán, 2014; Chichava and Fingermann, 2015; Chichava, 2015; Ganho, 2013). Chichava, Durán and Jiang (2014) have done a case study of the agricultural research center 'Centro de Investigação e

Transferência de Tecnologias Agrárias do Umbelúzi' (CITTAU). They argue that the success of the center is challenged by lack of coordination, ambiguities, and unclear mandates and responsibilities. Chichava (2014b) examines the case of Chinese investments in rice production in Xai-Xai, Mozambique. He finds that Chinese investments there are appropriated by local political elites for their own benefits, and not favorable to the local population. Nielsen (2014) looks at a Chinese road-building project in Mozambique. He focuses on the relations between the Mozambican workers and their Chinese superiors. He stresses that the poor working conditions result in the infrastructure project not being build properly. Chichava and Durán (2014) focus on the case of Chinese migrants in Mozambique and analyze their assimilation and integration in the Mozambican society. Chichava and Fingermann (2015) compare two different investments in the agriculture sector in Mozambique, one Chinese – the CITTAU research center, and one Brazilian – the ProAlimentos project. They stress that the Chinese are facing greater difficulties in Mozambique than the Brazilians because of cultural and communication issues. Chichava (2015) once again focuses on the Chinese rice production in Xai-Xai and comes to similar conclusions as in his previous research (2014b). Ganho (2013) studies the Chinese investments in rice production in Xai-Xai from an agrarian political economy approach. She argues that the smallholder farmers are not integrated in the Chinese project in Xai-Xai. These case studies contribute to the field of research with in-depth knowledge within several cases, which helps gaining a better understanding of Sino-Mozambican relations.

I position myself as a researcher in relation to these previous studies. My background knowledge of the Sino-Mozambican relations is shaped to a large degree by the material presented in the previous research. The case studies by Chichava and Fingermann (2015) and Chichava, Durán and Jiang (2014), of the CITTAU research center in Boane, and the studies by Chichava (2015), Chichava (2014b), and Ganho (2013) of the Chinese rice investments in Xai-Xai, provide interesting and thorough backgrounds and analyses. These studies have motivated me to research the investments in Boane and Xai-Xai further. What can be said about the previous research in general and the research on Boane and Xai-Xai in particular is however that it lacks a local perspective. Only Nielsen (2014), and Chichava and Durán (2014), have the local perspective of Sino-Mozambican relations as their main focus. The other researchers focus on Chinese involvement on a more general level, or include interviews with local populations but not as the main focus of analysis.

Studying the cases of Boane and Xai-Xai through local perspectives could contribute with new aspects that are not yet explored in the previous research, and lead to deeper and more complex understandings of Sino-Mozambican relations. For this reason I have conducted a case study of Sino-Mozambican relations based on interviews with farmers in Boane and Xai-Xai, in order to highlight the local perspective and contribute to the field of research. By doing this I hope to lift the issues of perceptions and effects of Chinese involvement in Mozambique from the point of view of people who might be directly affected by the involvement.

Much of the previous research suggests that there is a great complexity in the Sino-Mozambican relations. The concept of sustainable development allows for analyses of the complexity of development, understood through different dimensions, which in this study will be economic, social and environmental. No studies have analyzed Chinese involvement in Mozambique through the concept of sustainable development. By studying local perspectives through this concept, new aspects can be brought to the field of research, both empirically and theoretically. The possibilities of contributing with new empirical and theoretical material to a relatively limited, but nonetheless important field of research, has motivated the focus of this study.

1.3 BACKGROUND TO CHINESE INVOLVEMENT IN BOANE AND XAI-XAI

In November 2006, after the FOCAC, one of the promises made by former Chinese President Hu Jintao was to establish ten agricultural demonstration centers in Africa. One of these, the CITTAU research center, is located in Mozambique in the town of Boane (Chichava, Durán and Jiang, 2014: 107-109). Boane is located in the south of Mozambique, about 33 kilometers outside the capital of Maputo. The main occupation of the people living in Boane is farming (Mozambican Ministry of State Administration, 2005). The center is seen by Mozambican authorities as an institution for research, technical development, technology transfer, innovation, human capital formation and agricultural and livestock production. (Chichava, Durán and Jiang, 2014: 111; Chichava and Fingerhann, 2015: 4). The center is there to help local smallholder farmers increase their production through the application of new techniques and to support education of scientists and farmers to fight poverty (Government of Mozambique, 2012). The center was inaugurated in 2011 and the Chinese enterprise Hubei Lianfeng Agricultural Development Corporation is responsible for managing the center. (Chichava, Durán and Jiang, 2014: 108-112). The center was placed in Boane partly because

of the existence of an agricultural research station. In order for the Chinese to construct the CITTAU, the Mozambican government had to provide 52 hectares of land and allow tax-free grants on all Chinese material used for the construction. They had to leave the Chinese in charge of planning and construction and allowing them to assign Chinese specialists and supply equipment from China. The agreement was to prioritize research on cultivation of maize, rice, cassava and vegetables, which are crop types that correspond to the dietary habits of the Mozambican people. The idea of the center was that with education in the Chinese technologies, Mozambicans would learn how to increase their productivity without needing large land concessions (Chichava, Durán and Jiang, 2014: 108-112).

In April 2007 the Mozambican and the Chinese governments set up an agreement for the establishment of a Chinese 'friendship' rice farm at the Xai-Xai irrigation scheme, in the capital of the Gaza province, Xai-Xai. The project was implemented by Hubei Lianfeng Agricultural Development Corporation, the same enterprise that is in charge of the CITTAU research center in Boane. One of the main objectives of the partnership was to create agricultural technology transfer from the Chinese to the Mozambican smallholder farmers, in order to increase their rice productivity. The ambition was to make Mozambique a self-sufficient rice producer. There was a 20 000 hectares land concession included in this agreement (Chichava, 2015: 3). For farmers to benefit from the technology transfer, they had to organize themselves within an association called 'Associação dos Agricultores e Regantes do Bloco de Ponela para o Desenvolvimento Agro-Pecuário e Mecanização Agrícola de Xai-Xai' (ARPONE). The problem with ARPONE was that most people who joined the association and started working with the Chinese enterprise were Frelimo members and high-up employees of the public company Regadio do Baixo Limpopo (RBL) that is in charge of the irrigation scheme, and not smallholder farmers (Chichava, 2015: 3). The Hubei Lianfeng Agricultural Development Corporation had difficulties managing the project on a financial and material level, and in 2012 the private company Wanbao Africa Agriculture Development Limited took over the project (Ganho, 2013: 10). The official view on the project is that the Wanbao can be seen as an opportunity to overcome Mozambique's rice deficit. However, critical voices claim that the Chinese company has displaced thousands of smallholder farmers to put their project in place. Concerns have also been raised about possible droughts in Xai-Xai due to the project's high-level requirements for water usage (Chichava, 2014b: 130-136). The NGO Justiça Ambiental in Mozambique claims that the Chinese company systematically has violated not only the rights of the farmers, but also national and international regulations, by taking over land and displacing farmers, leaving them with no

way to support themselves (Justiça Ambiental, 2013). In this study the perceptions and experiences of farmers will be at focus for understanding the impact of the Chinese investments in Xai-Xai, and it remains to be seen how they relate to the views mentioned previously.

1.4 DELIMITATIONS OF THE STUDY

As mentioned previously, Chinese involvement in Mozambique is diverse and the Chinese have invested in several areas of the society. The Chinese investments in the two towns of focus in this study, Boane and Xai-Xai, have been made in agricultural projects. A natural delimitation of this study thus becomes the agricultural sector of Sino-Mozambican relations. Other parts of the Sino-Mozambican cooperation, or more Chinese investments in the agricultural sector would certainly have been interesting and relevant to study, but were excluded because of time limits within the Master thesis that had to be considered.

Since the aim and research questions of this study are based on the understanding of certain phenomena from the perspective of local farmers, the empirical data of this study is based only on qualitative interviews with farmers in Boane and Xai-Xai. Other types of material, for instance interviews with government officials or NGO workers would most certainly have been interesting, but are not suited for answering the research questions and fulfilling the aim of this study. Delimitations in the number of interviewees within the chosen towns also had to be made according to the scope of this thesis, which was a challenge considering the will to let as many people's voices as possible be heard. Further thoughts on delimitations and motivations for the selections of this study, can be found in chapter 4.

1.5 RELEVANCE TO GLOBAL STUDIES

Global studies is an academic field that focuses on global and local effects of social, political and economic processes and transformations. The complex link between the global and the local is central to the field of global studies (Campbell, MacKinnon and Stevens, 2010: 2-3). This study is framed within this field and highlights important local perspectives in a context shaped by global political, economic and social processes. In addition to local understandings of Sino-Mozambican relations, this study can be framed within a regional context, related to increased Chinese involvement in Africa, or in a global context, related to the rise of emerging powers and their investments in African or other countries (Nadkarni and Noonan, 2013). Additionally, this study contributes with knowledge based on the theoretical

framework of sustainable development, which is a concept that is often central to the field of global studies (Campbell, MacKinnon and Stevens, 2010: 152-154).

2. AIM AND RESEARCH QUESTIONS

2.1 AIM

The aim of this study is to gain a better understanding of how Sino-Mozambican relations are perceived by farmers in Mozambique, and in what way Chinese involvement has had an impact on the lives of these farmers, understood within the framework of sustainable development. By basing the study on perceptions and experiences of farmers in the towns of Boane and Xai-Xai, the aim is also to contribute to the general field of research on Sino-Mozambican relations with knowledge based on local perspectives.

2.2 RESEARCH QUESTIONS

- How are Sino-Mozambican relations perceived by farmers in the towns of Boane and Xai Xai in Mozambique?
- In what way has Chinese involvement in Boane and Xai-Xai had an impact on the lives of farmers in these towns, and how can this impact be understood within the framework of sustainable development?

3. THEORETICAL FRAMEWORK

This chapter begins with a discussion on ontological and epistemological starting points, and how these are reflected in this study. Next, the concept of sustainable development will be discussed and narrowed down to create a theoretical framework that will be visible throughout the study. The theoretical framework of sustainable development is mainly related to the second of the research questions. The first research question is focused on the interviewees' perceptions of the Chinese involvement. This question is not framed within any particular concepts but will be connected to the theoretical framework of sustainable development in the analysis of the study.

3.1 ONTOLOGY AND EPISTEMOLOGY

The ontological starting point of this study is based on constructivism. Constructivism asserts that the meaning of social phenomena is continually being constructed by social actors. Social entities should not be seen as truths, but constructions built from perceptions and actions of social actors (Bryman, 2012: 32-33). Human beings make sense of the world based on their historical and social perspectives, but they also construct meaning in social interactions. Hence, both the structure and action is important for creating meaning to the social world (Creswell, 2014: 8-9).

The epistemological starting point is based on interpretivism. Interpretivism emphasizes that social sciences need to be studied based on other principles than natural sciences. The study of the social world needs to be researched based on procedures that reflect the distinctiveness of human beings. The complex meanings of social actions need to be grasped (Bryman, 2012: 28-30). The difference is that people, as opposed to non-human forms of life, actively interpret and make sense of their surroundings and of themselves (Hammersley and Campbell, 2013: 26).

These ontological and epistemological views are based on the belief that people construct varied and multiple meanings of their experiences. The complexity of these experiences becomes important for the researcher. The main focus of the study is the participants' views of the situation but the researchers need to recognize that their own backgrounds are important and shape the interpretation of the study (Creswell, 2014: 8).

The ontological and epistemological starting points are reflected in each step of the research process. The aim and research questions are formulated so that the study highlights the participants' views and experiences, rather than attempts to find social facts. The choice of method is also related to the ontological and epistemological starting points. Constructivism and interpretivism often lead the researcher in the direction of qualitative studies based on interviews (Creswell, 2014: 18), which is also the case in this particular study. When it comes to the role of theory in qualitative studies it is typically inductive rather than deductive. It entails the generation of theories rather than the testing of theories (Bryman, 2012: 388). Abduction is however a concept that better describes the role of theory in this study. Abduction is closely related to induction but can be described as a way of understanding the perspectives, meanings, worldviews and reasoning of the participants of the study through a theoretical framework (Bryman, 2012: 401). The theoretical framework of sustainable development is there to provide clarity and definition of some of the concepts that will be

used throughout the study. The framework is related to the aim and research questions of the study, and has shaped the themes of the interview questions and the data analysis.

3.2 SUSTAINABLE DEVELOPMENT

The concept of sustainable development has emerged due to the increasing conflict between the economic system's demands for growth and the world's limited and shrinking supplies. The concept is wide and there are various definitions of the exact meaning. Commonly it can be said that sustainable development requires integration of action in three key areas; economic sustainability, environmental sustainability and social sustainability (Chasek, 2012: 254). The Brundtland Report (WCED, 1987) presents the following definition of sustainable development: "*Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs*". The report presents extensive work on sustainability and is based on the needs to seek balance between economic development, environmental protection and social well-being (WCED, 1987). In this study the three categories of sustainability, developed in the report, will be the base of the theoretical framework.

There are several models on how to define sustainable development. This study is not based on one particular model. Indicators and ideas are drawn from several models and put together into a theoretical framework. Each dimension of sustainable development is adapted to the nature of this study and includes themes that are possible to examine through qualitative interviews. The way each dimension is treated will be presented in chapters 3.2.1, 3.2.2 and 3.2.3.

The theoretical framework is here to provide coherence and clarity between the research questions, interview questions and analysis of the study. Within each dimension of sustainable development several themes will be presented. These themes were chosen in order to capture the most relevant aspects of Chinese involvement in Boane and Xai-Xai. The initial categorization of themes is based on the background knowledge of the situation in Boane and Xai-Xai respectively, in relation to the theories of sustainable development. Further motivations of the themes will be presented in chapters 3.2.1, 3.2.2 and 3.2.3. The interconnections between the three dimensions of sustainable development are present already in the defining stages. As can be seen in the following chapters there are some themes that overlap; water access can be categorized both under environmental and economic sustainability, and access to housing can be defined as both an economic factor and a social

one. In order not to exclude important views that might not be categorized within these pre-selected themes, the interview questions are generally open-ended and several broader questions are included to allow the interviewees to elaborate more freely on the subjects. More on the nature of the interviews and questions can be found in chapter 4.2.

Not all scholars organize the concept according to the three dimensions of sustainability previously mentioned. There are those who merge the economic dimension into the social and environmental dimensions with the argument that economic development cannot have any needs that lie outside considerations of social well-being and/or environmental protection (Mulligan 2015: 4). The nature of the concept of sustainable development is that the dimensions overlap and need to be examined in relation to each other (Chasek, 2012: 254). Interconnections between the three dimensions are at focus in the analysis and even though the economy might not have needs that are isolated from social and environmental issues, there are some economic aspects that in this study are relevant to organize under their own pillar. Further explanations of these economic aspects will be presented in chapter 3.2.1.

Mulligan (2015: 81-82) argues that the approach in the Brundtland report is based largely on the field of economics and brings focus to economic development measured through quantitative indicators, and that this complicates the interconnections with the social and environmental dimensions, since these dimensions are not as easily examined through quantitative indicators. It is not to be denied that the Brundtland report (WCED, 1987) does include economic dimensions of a more quantitative nature, but there are also parts which focus on economic dimensions that can be examined through a qualitative study. Exploring the interconnections between the three dimensions is thus possible to do even through a qualitative approach. The qualitative parts of the Brundtland Report will be further discussed in chapter 3.2.1.

3.2.1 ECONOMIC SUSTAINABILITY

In this study there are two main themes that will frame the economic dimension of sustainable development. These are *basic needs* and *productivity*. These two themes represent economic aspects that are relevant to clarify and separate from the social and environmental dimensions since they are framing the economic situation of the participants in this study well.

According to the Brundtland Report, the ability to meet basic needs is central for achieving sustainable development. Basic economic needs include food, shelter, clothing and jobs. When people live in poverty and these basic needs are not being met, there is a bigger

vulnerability to other crises (WCED, 1987). This dimension of economic sustainability, defined in the Brundtland Report, can be examined through qualitative interviews. Other components that define basic needs, related to economic sustainability, are access to an adequate diet and clean water (Diesendorf, 2000: 4).

The participants of this study are smallholder farmers and belong to one of the poorest groups of people in Mozambique (IFAD, 2014: 1). Considering the participants' economic situations it seems particularly relevant to examine the ability to meet basic needs, which is why it is chosen as a main theme within economic sustainability. This study investigates whether the ability to meet basic needs has changed since the Chinese involvement in Boane and Xai-Xai. The theme of basic needs is translated into interview questions 6 and 7 regarding positive or negative experiences on their personal economy.

The theme of productivity can also be found in the Brundtland Report, which emphasizes how sustainable development requires meeting human needs by increasing productive potential (WCED, 1987). This too is a definition of economic sustainability that is possible to examine through qualitative interviews. There is a connection between productivity and economic development, and the production and distribution of wealth can be seen as an important part to analyze in relation to economic sustainability (Rogers, Jalal and Boyd, 2008: 260-266). Since the participants of this study are farmers, their main level of income is based on the productivity of their farms. For this reason, productivity is included as a main theme within economic sustainability. The study investigates whether the productivity has changed in any way in Boane and Xai-Xai since the Chinese involvement. The theme of productivity is translated into interview questions 8-9 regarding changes in farming techniques or productivity and changes in possibilities of selling their products. Since this is a qualitative study the ability to meet basic needs and the productivity will be examined based on the experiences of the interviewees rather than through quantitative measures.

3.2.2 SOCIAL SUSTAINABILITY

Within the social dimension of sustainability, this study focuses on three themes; *access to social resources*, *political participation* and *efficient community action*.

Access to social resources is defined as an equal access to key services, such as health, housing and education (McKenzie, 2004: 23), and as access to social processes and benefits of the modern society (Omann and Spangenberg, 2002: 5). Other important factors

concerning social sustainability are access to information (Jörissen et.al, in Omann and Spangenberg, 2002: 6), and access to land (Rogers, Jalal and Boyd, 2008: 221).

Based on the background knowledge of the situation in Boane, the farmers' access to education and knowledge in relation to the research center seems to be particularly central for this study, since one of the main objectives of the center is to provide education to farmers. In Xai-Xai the access to land appears to be especially relevant to examine since there are farmers who have lost their land because of the Chinese involvement. In both cases, the Chinese are investing in agriculture, which is the main occupation of the interviewees. Therefore it is interesting to examine how much information has been available about the big agricultural investments that are located in the area where the farmers work. The theme of access to resources is translated into questions 14-15. Question 14 is wide and open for the interviewees to elaborate quite freely regarding access to any kind of social resources, while question 15 is narrowed down to the access to information.

Another important criterion for social sustainability is the widespread political participation of citizens, particularly at a local level (McKenzie, 2004: 23). The citizens' right to actively participate in public affairs of the society is an essential element for social sustainability (Omann and Spangenberg, 2002: 5). Political participation becomes relevant to study for similar reasons as when it comes to access to information. In both Boane and Xai-Xai there have been two big Chinese agricultural investments very close to the interviewees' farms and it is relevant to examine whether political participation has been possible for the farmers in relation to the investments. For this reason political participation is included as a main theme of social sustainability. This theme is translated into interview question 13 regarding the possibilities of participating in the decision-making process.

An important factor for social sustainability is that there are mechanisms for a community to fulfill its own needs through efficient community action (McKenzie, 2004: 23). When it comes to efficient community action it is relevant to examine to which degree the farmers in Boane and Xai-Xai, who might be affected by the Chinese investments, can voice their opinions on these investments and having them valued by higher authorities, either through the community or by themselves. In this study this theme is translated into interview question 17 that asks about the possibility of the interviewee to effectively voice his/her opinion. This question is open for capturing different ways in which the interviewee can or cannot affect their situation.

One aspect of social sustainability that is not included in the three themes is the one concerning the emotional aspects. Feelings of powerlessness, dependency and shame can

often be connected to economic poverty and the emotional aspect is important when looking at social sustainability (Rogers, Jalal and Boyd, 2008: 219). Since the farmers in this study belong to one of the poorest groups of the society, it becomes relevant to examine whether the emotional aspects of poverty have changed since the Chinese involvement in Boane and Xai-Xai. This aspect is not included as a main theme within social sustainability since emotional aspects can be seen as an overarching theme that might be relevant to analyze within several themes or dimensions. Question 16 opens up for the interviewees to elaborate on any social changes they have felt both personally and in their community.

3.2.3 ENVIRONMENTAL SUSTAINABILITY

In this study the environmental dimension of sustainable development will be organized through two themes, or levels. The first theme treats environmental issues of the Chinese involvement on a personal level. It focuses on the farmers' perceptions of a possible environmental impact in relation to their own farms or in their personal sphere. The second theme treats environmental issues of the Chinese involvement on a broader level in relation to the interviewees' general surroundings.

A key concept within sustainable development is that technology and social organization should not limit the environment's ability to meet present or future needs. Natural systems such as the atmosphere, the waters, the soils and the living beings should not be endangered in order for development to be sustainable (WCED, 1987). Issues of pollution of water and air, and broader environmental issues of biological diversity, and soil and land conservation are seen as important issues that need to be considered when examining environmental sustainability (Rogers, Jalal and Boyd, 2008: 109; Diesendorf, 2000: 2).

Based on the background knowledge of Chinese involvement in Boane, it seems relevant to examine whether the new techniques and methods developed at the research center have had an environmental impact. In Xai-Xai the Chinese have transformed large areas of land into rice plantations. It is therefore relevant to study whether this shift in production has had an environmental impact on other forms of agriculture in the area. In this study questions 10 and 11 focus on the environmental effect related to the personal sphere and question 12 broadens the perspective and focuses on the environmental effect in the general surroundings of the interviewees. Since this is a qualitative study the environmental impact is examined through the perceptions of the interviewees rather than ecological tests on soil, water and

other environmental areas. All questions were formulated broadly to allow the interviewees to elaborate on any environmental issues they considered important.

4. RESEARCH DESIGN AND METHODOLOGY

4.1 RESEARCH DESIGN

This study is a qualitative field study, based on interviews. A qualitative study can be defined as a research strategy that usually focuses on words while a quantitative study emphasizes quantification in the collection and analysis of data (Bryman, 2012: 35-36). The differences between qualitative and quantitative research are often based on ontological and epistemological foundations and the views on the role of theory. As mentioned in chapter 3.1, qualitative studies are often based on interpretivist epistemology and constructivist ontology, where the role of theory is inductive, while quantitative studies are often based on positivist epistemology and objectivist ontology, where the role of theory is deductive (Bryman, 2012: 35-36). As explained in chapter 3.1, this definition is relevant to understanding the nature of this study, based on the ontological and epistemological starting points, with the exception that abduction rather than induction best describes the role of theory.

A quantitative study would have been able to capture a larger empirical sample but a qualitative approach better captures the stories of the interviewees and allows for in-depth knowledge on the local perceptions and experiences of Chinese involvement in Mozambique, and thus better helps fulfilling the aim of the study.

The theoretical framework presented earlier is visible through the data collecting and data analyzing processes. The structure of the interview questions and the data analysis is based on this framework and the theme of perceptions. The connection between the theoretical framework and the methods of the study will be further presented in the following sections.

4.2 EMPIRICAL DATA

The study is based on empirical data from farmers in Boane and Xai-Xai. The field study was conducted during two months, between January and March 2015. The initial idea was to focus on an in-depth study in one town only. However, a greater breadth in the selection allows for more comparisons and a broader understanding. Choosing two situations where the Chinese have been involved however still allows for the possibility of gaining in-depth knowledge.

Although this study focuses on two different projects, it is not defined as a comparative study. A comparative design studies two or more similar or contrasting cases using more or less identical methods and can be used to improve theory building (Bryman, 2012: 72, 74). There are some factors that differentiate this study from a comparative one. This study is a case study of the Chinese involvement in Mozambique. Bryman (2012: 66) provides the following definition of a case study: "*The basic case study entails the detailed and intensive analysis of a single case*". The two towns of Boane and Xai-Xai were chosen within this case to exemplify the Sino-Mozambican relations. They are two examples, one research center and one rice plantation, which provide a rich and in-depth picture of the Sino-Mozambican relations based on the perceptions and experiences of farmers in these towns. Comparisons between Boane and Xai-Xai are relevant and interesting for the analysis in this study but the two towns are examples within one single case, rather than two separate cases that are to be compared as the main aim of the study.

As mentioned in chapter 1.4, the material of this study is based only on interviews with farmers. Interviews with government officials or NGO workers, for instance, are not included since that kind of material is not suited for answering the research questions and fulfilling the aim of this study. If interviews with NGO workers or government officials would have been included, the aim would most likely have been more focused on comparing their perspectives. A complex picture of the Chinese involvement through different perspectives could most likely have been presented if I were to interview other groups of people too. While this is certainly an interesting approach, it is not the focus of this study. This study wants to lift the local perspective of farmers who might have been affected by the Chinese involvement. Their perspective alone is valuable to highlight and understand.

When it comes to the question of generalization of qualitative research findings, the views of the interviewees in this study cannot represent any other views than their own and it is not possible to generalize the results for a wider population. The views of the interviewees in this study can however be analyzed, compared and understood in wider contexts and contribute to generalizations in relation to theory (Bryman, 2012: 406). Further discussions on generalizations of the results of this study will be presented in chapter 9.

4.2.1 DATA COLLECTION

The data in this study has been collected through qualitative semi-structured interviews. Semi-structured interviews are usually organized according to different themes or topics.

Within these themes or topics the questions are often open-ended to allow the interviewee to elaborate on their answers (Bryman, 2012: 471). Semi-structured interviews were chosen since they allow for in-depth exploring of the topics of the study but at the same time follow a structured framework. This method is thus suitable for answering the research questions of this study since it can help provide in-depth knowledge on perceptions and experiences from the interviewees, and can structure the information within the theoretical framework of sustainable development.

In an unstructured interview, there is not a predefined structure to frame the answers of the interviewees. The participants are allowed to respond freely to a few very open questions (Bryman, 2012: 471). Unstructured interviews could also have captured the interviewees' perceptions and experiences at an in-depth level. It would however be harder to connect the results to the theoretical framework, using such a method. Without the theoretical framing of the interviews, research question 2, concerning the impact of Chinese involvement understood within the framework of sustainable development, would have been more difficult to answer.

The interview guide of this study is attached in appendix 1. In order to fulfill the aim of this study, the interview questions are structured in four main sections based on the theoretical framework of sustainable development and connected to the research questions of the study. Three of the themes are based on the three dimensions of sustainable development. The fourth theme is structured around perceptions of Chinese involvement. The theme of perceptions is not part of the theoretical framework *per se* but is included as an indicator in the interview guide to structure the results related to the research question on perceptions. In the interview guide, question number 5 is located under the dimension of economic sustainability. It treats the interviewees' level of inclusion in the activities related to the Chinese investments in their town. This question is not directly located under the two themes presented within the dimension of economic sustainability, but was placed within economic sustainability to contribute to a background which could help frame the answers for the other questions within that dimension. During the interviews however, the answers tended to be more connected to social sustainability. Therefore the answers to this question are presented under the section of social sustainability.

In addition to the questions mentioned in the interview guide, maintenance questions such as *why so, in what way, why not, could you give an example* were asked to help the interviewees elaborate their answers when necessary. The interviews lasted between 15 and 30 minutes. In each interview, all themes were covered and the interviewees were able to speak until they no longer had anything more to add. The length of the interviews varied

depending on the amount of information from different interviewees and also on how much they were able to elaborate their answers.

Two interpreters were needed to conduct the interviews, one in Boane and one in Xai-Xai. They interpreted most of the interviews between Portuguese and Changana. Only two interviews were completely conducted in Portuguese without the help of the interpreters. They were both working at local NGOs, one at UNAC – União Nacional de Camponeses and one at FONGA– Forum de ONGs Nacionais de Gaza.

Fourteen interviews were conducted, five in Boane and nine in Xai-Xai. All of the interviewees were smallholder farmers. In total, 12 were women and 2 were men. The reason for this gender gap is that in these towns, the women were generally the ones working at the smallholder or family farms. This reality reflects on the data selection of this study. It is possible to speculate that the results could have looked different if the sample included more men, or other people. I do however not attempt to generalize the experiences and perceptions of the interviewees in this study, as mentioned previously. Their perspectives are relevant and valuable even though other views could have been presented with a different sample.

Smallholder farmers are in this study defined as farmers who farm for themselves or their families and who do not employ other people to farm on their lands. Six of the interviewees in Xai-Xai no longer had any land since they had been removed when the Chinese started investing in their town. The other three interviewees in Xai-Xai and the five interviewees in Boane still had access to their land. Fourteen qualitative interviews is an appropriate number to collect an amount of material that allows for a thorough analysis and discussion, given the time frame of this thesis. A greater number could have provided even more interesting material but the limitations in time restricted me from increasing the number of interviews. Time had to be set aside for each interview to be prepared, conducted and analyzed.

The interviews were recorded and transcribed. During the interviews certain flexibility was necessary from me as a researcher. Some were able to talk more freely and elaborated on the topics well. Others needed more interventions from me with maintenance questions in order to elaborate further, and some were not able to elaborate very much even with the help of maintenance questions. Information on the length of the interviews, date and place they were conducted can be found in appendix 2.

4.3 DATA ANALYSIS

4.3.1 ANALYTICAL FRAMEWORK

In order to understand the data collected through qualitative interviews with farmers in Boane and Xai-Xai, content analysis will be applied to the material. Content analysis is used to systematically describe contents and certain phenomena in texts. It is used to find patterns in larger text materials, such as transcribed interview material. It primarily looks for explicit expressions in the texts but also opens up for an analysis of implicit factors and contexts to create meaning to the material. Content analysis helps create an overview of larger material and facilitates comparisons (Boréus and Bergström 2012: 50-51).

The aim of this study is to highlight perceptions and experiences from farmers in Mozambique. Content analysis is relevant for this study since it helps finding and organizing interesting phenomena, connections, similarities and differences in the interviewees' stories. Explicit accounts told from the perspectives of the farmers are central to answering the research questions, but a wider understanding and reflection of the material is also possible since content analysis opens the door to an understanding of implicit accounts and contexts. Another method that could be used to analyze implicit accounts is discourse analysis. It focuses on the language and the way language is used to shape the reality (Bergström and Boréus, 2012: 354). Discourse analysis focuses on implicit accounts, but in this study the explicit accounts are the most central to look at for answering the research questions and fulfilling the aim. For this reason, content analysis is best used to process the material in this study.

The content analysis in this thesis is based on Ritchie, Spencer and O'Connor's method on qualitative analysis. This method systematically describes how qualitative data can be analyzed in a thorough and consistent way. The method focuses on three main stages of analysis; *data management*, *descriptive accounts*, and *explanatory accounts* (Ritchie, Spencer and O'Connor, 2003) and it forms the base of the data analysis. There are however some parts of their extensive method that have not been used in this study. A certain level of modification of the method was needed in order to best suit the aim and research questions. The exact use of the method will be presented in the following sections, which are structured according to the three main stages.

4.3.2 DATA MANAGEMENT

Initially, much time was spent on reading through the transcribed interviews and getting an overview of the results. The next step in the analysis was creating a conceptual framework based on the topics and themes in the material. The framework is created by identifying categories in the material and organizing these into an index of main and sub-themes (Ritchie, Spencer and O'Connor 2003: 221). In this study the topics and themes in the conceptual framework are organized according to the theoretical framework of the study. The main concepts are economic, social, and environmental sustainability, with an addition of the theme of perceptions. The conceptual framework of this study can be found in appendix 3.

The next part of the data management is applying the conceptual framework to the data. This is done by coding the data according to the different themes identified in the conceptual framework. Each part of the transcribed text is coded with one or more themes (Ritchie, Spencer and O'Connor 2003: 224). In this study the data is coded according to the 15 sub-themes identified in the conceptual framework.

When the data is coded it can be sorted by theme or concept in a thematic chart. This allows for material with similar content to be located together. A thematic chart makes it possible to focus on each subject and allows for the intense review of the content that is needed in later stages of the analysis (Ritchie, Spencer and O'Connor 2003: 228-230). In this study there are four thematic charts, one for each main theme in the conceptual framework; economic, social, and environmental sustainability, and perceptions. Each thematic chart organizes the interviewee columns vertically and the sub-theme columns horizontally. The thematic charts of this study can be found in appendices 4-7.

The data analysis in this study has been done manually. A manual study is often more time consuming than using qualitative software programs and the consistency level of a computer is higher than of a human. However, more complex assessments and interpretations of the material can be done in a manual study (Boréus and Bergström, 2012: 51). A manual data analysis allows for more freedom to analyze implicit accounts and understandings of contexts. It also gives more freedom to analyze and focus the material so that it relates better to the aim and research questions of this study.

4.3.3 DESCRIPTIVE ACCOUNTS

When the data was managed in a conceptual framework, coded and organized in thematic charts, the next step was to detect key dimensions within a sub-theme. By looking through all

the data within each sub-theme key dimensions could be identified and more refined categories could be created based on the variations in the data. The categorization of the data at this stage is thus used to observe what is said within each sub-theme (Ritchie, Spencer and O'Connor 2003: 237-241). In this study, 51 categories were identified within the sub-themes of the four main themes (economic, social, and environmental sustainability, and perceptions). The frequency of each category is also included in this categorization. These can be found in appendix 8.

4.3.4 EXPLANATORY ACCOUNTS

The next step of the analysis was to interpret the results and find differences, similarities or connections based on the whole material; transcripts, charts and tables. Ritchie, Spencer and O'Connor present a model for the explanatory accounts that focuses largely on statistics and the possibility to identify all possible linkages that can be made within the data (Ritchie, Spencer and O'Connor 2003: 249-252). In this study I have chosen not to follow their model when it comes to the explanatory accounts. This study focuses on finding the most relevant connections, differences or similarities, rather than all of them. Developing statistics on all possible links in the data is time consuming and not the best method for fulfilling the aim of this study. There may be links between different answers within or between themes but they are not necessarily interesting or relevant for answering the research questions of this study. It is important to interpret the results in relation to the aim and questions you are interested in answering. It is also important to understand the context of the material (Boréus and Bergström, 2012: 39, 59). By following Ritchie, Spencer and O'Connor's statistical model there was a risk that the contextual aspects and actual stories would get lost since the data in this case is very deconstructed from its original form. Instead, the interviewees' stories are systematically explored and presented. The analysis started at an individual level and all answers were looked through. Based on this it was possible to group interviewees together based on similarities in answers to particular questions and it was also possible to find broader patterns and links between the interviewees, based on general similarities and differences. In the cases where individuals stand out and are not easily placed into a group, this was mentioned. In order to lift the interviewees' stories, quotes from the participants take up a large part of the presentation of the research findings. The data analysis is structured within the theoretical framework (and the theme of perceptions). This helps connecting the results to the aim and research questions of this study.

4.4 CONSIDERATIONS

4.4.1 ETHICAL CONSIDERATIONS

To strengthen the ethical aspects in social studies it is important to maintain confidentiality of records, and to ensure that there is informed consent from the participants (Bryman, 2012: 136, 138). Before the interviews started the participants were informed of the aim of the study and their role as participants. They were informed that the interviews would be recorded and that their personal information would be kept confidential (see appendix 1). They were allowed to ask any questions about the study before the interview started. The participants signed a paper that they were informed of all this. It was important that the participants gave their informed consent. The participants' personal information is not revealed anywhere in the study. These were measures taken to strengthen the ethical aspects of the study.

An important ethical aspect is to respect potential power imbalances (Creswell, 2014: 98). Since I am a white, European woman, interviewing in Mozambique, there is a historical and cultural perspective in this relationship that should be considered. With reference to the colonial past, there is a certain inequality in this relationship that might affect what, and how, the interviewees answered to the questions. It was not possible to live with the interviewees for a longer period of time. The relationship with the interviewees was thus established only on the days when the interviews were performed. Both the historical inequality between me and the interviewees, and the limited time to establish closer relationships, pose methodological challenges to the study. More time together would perhaps have led to even more interesting and relevant material. Awareness of these limits is important, there is however no way of removing the researcher and participant from the historical or cultural contexts, and the time frames of the study had to be respected. In order to contribute with as much relevant and interesting material as possible, given the context, openness was emphasized during the interviews. In order for them to open up to me, I opened up as much as possible to them. My personal history and the aim and focus of the study were carefully explained and the participants' importance for the study was accentuated. It was made clear that the interviewees' experiences and perceptions were the most important components of the study and the participants were allowed to ask any type of questions on the purpose of the study or about my role as a researcher.

4.4.2 CHALLENGES OF THE STUDY

Apart from the methodological challenges mentioned in the previous chapter, one of the main challenges of the study was finding farmers to interview. Gaining access can be seen as a political process, where negotiations are central. Often there are gatekeepers involved who seek to influence for example what kind of questions are asked, and who can or cannot be the focus of the study (Bryman, 2012: 151). In order to conduct the planned interviews I had to go through local NGOs that could put me in contact with farmers to interview. I was helped finding interviewees through WeEffect, UNAC, Justiça Ambiental and FONGA. I looked up several NGOs with different profiles which were contacted in order to make the sample of interviewees wider. However, it cannot be denied that the sample of farmers is influenced by these NGOs. The gatekeepers in this study did however not attempt to control what questions were asked or how the results were interpreted.

Another challenge of the study was the question of language. I am fluent in Portuguese, which is the official language in Mozambique. There are however many local languages that are spoken in the country. Most of the interviewees were not comfortable having the interviews in Portuguese, which made it necessary to find interpreters who could translate between Portuguese and Changana. There is an unavoidable risk that certain information gets lost in translation when an interpreter is involved (Kapborg and Berterö, 2002). In order to minimize this risk the interpreters were instructed to stay to the questions and translate everything the interviewee said, with no exceptions. In this study there is a double translation since the quotes in chapter 5 are translated into English by me as a researcher. The risk of losing some of the original meaning of the answers increases with a double translation. The English translation of the quotes is however done as carefully as possible and the context of the quotes was considered. Including quotes from the interviews was central to presenting the findings and letting the interviewees' voices be heard.

4.4.3 VALIDITY AND RELIABILITY

Validity in qualitative research is based on determining whether the results are accurate from the standpoint of the researcher, the participant, or the readers (Creswell, 2014: 201). In order to achieve validity in this study I have made sure to constantly refer back to the aim, research questions and theoretical framework, to accentuate how the results are relevant. The links between the aim, research questions, theoretical framework and results have thus been clear through the whole study.

In the results section and discussion of this study, information that runs counter to the themes, groups or patterns developed during the analysis is also presented. This is a factor that increases validity of the study (Creswell, 2014: 202), which I have considered.

The meaning of validity can be discussed in relation to constructivist ontology and interpretivist epistemology. Based on these, concepts of social sciences do not describe facts that are neutral to the researcher's own background and understanding. The researcher is not an outside observer, but is shaping the objects of study. The researcher's understanding is also shaping the interpretations of the material. It is thus important to be transparent in your role as a researcher in order to increase the validity of the study (Bergström and Boréus 2012: 41-42). This is something I have been aware of during the whole study and I have attempted to show transparency throughout the study for example by explaining my background in relation to the interviewees' and explaining my ontological and epistemological backgrounds and how these affects the study.

In order to increase reliability in this study each procedure has been presented in detail. Interview questions and interview information can be found in appendices, and during the data analysis process each step can be carefully followed by the reader. All protocols and tables developed during the analysis are thoroughly explained and presented in appendices and are open to the reader. Transparency of this kind, showing the consistency in the approaches of a study, is one factor that can help increase the reliability in a qualitative study (Creswell, 2014: 203).

5. RESEARCH FINDINGS

The findings are based on the 14 interviews that were carried out in Boane and Xai-Xai. The interviewees from Boane are cited with the following captions; B1-B5 and the interviewees from Xai-Xai are cited with the following captions; X6-X14. For further clarity and transparency, details and charts of the research findings can be found in appendices 3-8, which include the conceptual framework, the thematic charts of the four themes and the descriptive accounts. All quotes are translated by me from Portuguese to English.

5.1 PERCEPTIONS

The interviewees in Boane and Xai-Xai were asked questions about their perceptions of the Chinese involvement both on a general level in Mozambique and on a local level in their own towns. On a general level all interviewees from Boane (B1-B5) and some interviewees from

Xai-Xai (X7, X12 and X13) had positive perceptions of the Chinese involvement in Mozambique. Among the positive perceptions, some (B2 and B3) emphasized the positive history of Chinese support to Mozambique during the liberation movement and that it has continued in a positive way since then.

"I am an old combatant from the liberation movement and when I went out in the field to fight I saw that the Chinese gave us all the arms and materials we needed. Since the war there has been cooperation between China and Mozambique and there is no problem with this cooperation" (Interviewee B3. 2015, 5 February).

"China has been integrated in the support to Mozambique ever since the liberation war and we rely on them (...). They are ready to help us and teach us new things (...)" (Interviewee B2. 2015, 5 February).

Another interviewee (X12) stressed how the production in the country had increased with the Chinese involvement and one interviewee (X13) underlined how the Chinese involvement is positive for development in Mozambique but also mentions some problems.

"The Chinese involvement is positive for Mozambique in general but the problem is that their food is very expensive. I believe the poverty is reduced a little since the Chinese came but it is a very high price to buy their food" (Interviewee X13. 2015. 18 February).

Negative perceptions on Chinese involvement on a general level were also expressed (X6 and X10). One of the interviewees stressed that the government controls everything and that the Chinese involvement is not benefitting the Mozambican population. Some interviewees (X9 and X11) perceived the general Chinese involvement as negative for the population but positive for the government.

"Only the government knows what is going on with the Chinese. The population has nothing to say about it. (...) The Chinese involvement has been very negative for Mozambique" (Interviewee X6. 2015, 17 February).

"Their [the Chinese] involvement here is a bit strange because sometimes it benefits the government but not the people" (Interviewee X9. 2015, 17 February).

"For the people the Chinese presence is not good, but for the government I think it is beneficial" (Interviewee X11. 2015, 17 February).

When it comes to the local level, once again, all interviewees from Boane, joined by some from Xai-Xai (B1-B5, X7, X12 and X13) had positive perceptions of the Chinese involvement in their towns. Some interviewees (B1, B2, B4 and B5) expressed a view that the Chinese had brought knowledge to the town which had helped the farmers in their lives.

"They [the Chinese] are doing a great job. We were able to go to the center and get education and we learned a lot of things. It was an exchange of experience and technology. (...) They [the Chinese] will help us even more in the future and we will learn more things" (Interviewee B1. 2015, 5 February).

Another positive factor that was highlighted by one interviewee (B3) was the cooperation between Mozambique and China.

"Since the war there has been cooperation between China and Mozambique. There is no problem. I went three times to the center here to learn how to work and produce better in my farm. I have a small farm but it can produce much. There is no problem with the cooperation" (Interviewee B3. 2015, 5 February).

Another factor that contributed to the positive perceptions was the increase in rice production in Xai-Xai, which was emphasized by some (X7, X12 and X13). There was however critique lifted by some of these interviewees. One of them (X7) mentioned that, even though she was positive to the Chinese involvement in Xai-Xai, she wished they would employ more people. Another one of these interviewees (X13) mentioned that while she saw the Chinese involvement in Xai-Xai as positive, she did think it was problematic that the Chinese rice was expensive and that they removed people from their lands.

"For me the Chinese presence is good but I would like them to employ more people here, my husband for example. They came here and increased rice production and that is positive" (Interviewee X7. 2015, 18 February).

"The Chinese involvement here is good because the Chinese came here with the rice project. After this I have more possibilities of buying rice" (Interviewee X12. 2015, 18 February).

"The poverty is diminishing with the Chinese presence. Here in Xai-Xai they increased rice production but the problem is that the rice is expensive to buy and that they have left farmers with no land. I am angry about what the Chinese did to me [removed her from her land]" (Interviewee X13. 2015, 18 February).

There were some negative perceptions of Chinese involvement in Xai-Xai (X6, X10 and X14) regarding the removal of people from their lands and how this had been devastating and brought poverty to the population.

"The Chinese presence is very bad. That project [the rice production] brought a lot of poverty here to the people" (Interviewee X6. 2015. 17 February).

"It [the Chinese involvement in Xai-Xai] is very negative. I had a farm but they removed everything from the farm without any information or compensation" (Interviewee X10. 2015. 18 February).

"I feel used. For me the Chinese presence is bad. They took my land from me and I wish they had not done that" (Interviewee X14. 2015, 18 February).

Some of the interviewees in Xai-Xai (X9 and X11) perceived the Chinese involvement as negative for the population but positive to the government. The negative aspect was the removal of people from their lands and the positive, regarding the government, was the increased rice production.

"My perception of the Chinese involvement in Xai-Xai is that it is negative for the population. For the government it is positive because they [the Chinese] came with rice production. But the rice is not for me. The benefit is for the government" (Interviewee X11. 2015, 17 February).

"For the population, the Chinese involvement is bad. Sometimes it benefits the government but here in Xai-Xai the population is not benefitting from the rice production" (Interviewee X9. 2015, 17).

One of the interviewees in Xai-Xai (X8) mentioned that she could not answer the questions on perceptions, neither on a national nor on a local level, for political reasons. The reason for this was her loyalty to the political party Frelimo.

"Because of my loyalty to the party [Frelimo] I cannot answer questions on my perception of the Chinese involvement" (Interviewee X8. 2015, 18 February).

5.1.1 GROUPS WITHIN THE THEME OF PERCEPTIONS

The results based on the perceptions of the Chinese involvement in Mozambique can be divided into three groups. The first group includes all interviewees from Boane and some interviewees from Xai-Xai who thought the Chinese involvement was positive, both on a general level in Mozambique and on a local level in Boane/Xai-Xai. The second group

includes the interviewees in Xai-Xai who thought the Chinese involvement was negative both nationally and locally. The third group includes the farmers in Xai-Xai who expressed how the Chinese involvement is negative for the population but positive for the government, both on a local and national level. Outside of these groups is the one interviewee from Xai-Xai (X14) who had no perceptions on a national level but thought the Chinese involvement was negative locally. The one interviewee from Xai-Xai (X8) who could not answer the questions for political reasons is also placed outside of these groups.

5.2 ECONOMIC SUSTAINABILITY

Since the start of the CITTAU research center, all interviewees from Boane (B1-B5) expressed that they had experienced a personal positive economic impact. They had had the possibility to learn new efficient farming techniques at the research center, which had increased their production. One farmer (B2) mentioned a new irrigation system that the Chinese had helped him with. Some of them (B1-B4) experienced that they had been selling more products now than before the start of the center, while one of them (B5) stated that she had not yet started selling by using the new techniques on her personal farm. One of the farmers (B3) expressed a bit of concern and explained how he would like more help from the Chinese with materials and not only knowledge.

"At that center we learned a lot of things. (...) We learned many new techniques on how to farm better. (...) The productivity is better and I sell more now. I also learned how to sell" (Interviewee B1. 2015, 5 February).

"We did the irrigation manually before and it was just enough to produce for our families. The Chinese taught us a better irrigation system so we have more products now to sell and not only consume in our families. (...) We also learned new efficient farming techniques" (Interviewee B2. 2015, 5 February).

"There is a difference in productivity after the new techniques we learned at the center. The problem is that we would need help with more material to be able to apply all the things we learned. But with the new information from the center I manage to sell more products. They helped us how to sell as well. I manage to sell at a level I never managed before" (Interviewee B3. 2015, 5 February).

"I see a big change. I did not know how to sow efficiently before but now, with the new techniques, I am able to produce more. (...) I have not started selling yet. I am still in the initial stage" (Interviewee B5. 2015, 5 February).

When the personal economic impact was discussed with the farmers in Xai-Xai some of them (X6, X8-X11, X13-X14) expressed that they had not experienced a personal positive economic impact since the Chinese involvement in Xai-Xai.

"I have never benefitted economically from the Chinese investments here in Xai-Xai" (Interviewee X6. 2015, 17 February).

"I have not had any positive impact on my economy since the Chinese started producing here" (Interviewee X10. 2015, 18 February).

Some of the other interviewees in Xai-Xai (X7, X12) mentioned that they had had the possibility to buy more rice since the start of the Chinese investments, but other than that they had not experienced a personal positive economic impact.

"For me the good thing is that I can buy the rice they [the Chinese] produce. Other than that I have not seen any benefits for me" (Interviewee X12. 2015, 18 February).

The farmers who had been removed from their land (X6, X9-X11, X13-X14) stressed the difficulties in evaluating any changes in ways of farming or productivity. For them the change was that they had a farm and products but now have nothing. It is also impossible for them to sell any products without land.

"I do not think the techniques and productivity changed for those with land but for me it is not possible to answer. They [the Chinese] took our land and it affected us very badly" (Interviewee X6. 2015, 17 February).

"I do not know how to evaluate that since I no longer have my farm. It is not possible to sell anything because I have nothing" (Interviewee X9. 2015, 17 February).

"The only place where you can see changes in productivity or techniques is at your farm. The Chinese took mine away, so I have no way of telling" (Interviewee X11. 2015, 17 February).

The interviewees in Xai-Xai (X7, X8 and X12) who still have their land, stated that they had not experienced any changes in farming techniques or productivity, and they all stated that they had not sold any products neither before nor now.

"Nothing changed for me in that sense. (...) I do not sell anything, I only farm for my family and I have always done so" (Interviewee X7. 2015, 18 February).

"I was not removed from my land and their [the Chinese] involvement did not impact me and my products at all. I have never sold products and I still do not" (Interviewee X12. 2015, 18 February).

The interviewees in Xai-Xai who had been removed from their land (X6, X9-X11, X13-X14) experienced a tremendous negative personal economic impact since the start of the Chinese investments. Before the Chinese came they had land where they could farm different products and sustain themselves but they have been affected very badly by the Chinese since they no longer have a way to sustain themselves economically.

"We had our farms and we worked there to sustain our families and pay for school and other things. But they [the Chinese] invaded and we did not get any notification. They destroyed our things at the farms. Since 2008 we are crying with our children in our arms. We are suffering and we do not know how to feed our children" (Interviewee X9. 2015, 17 February).

"I feel used because the Chinese took our farms away. The Chinese came here and did a lot of things and I never knew their motive. (...) I suffer from what the Chinese did" (Interviewee X14. 2015, 18 February).

"The plants that I had at my farm were totally destroyed by Wanbao [the Chinese company]. Their involvement impacted my economic situation very negatively" (Interviewee X10. 2015, 18 February).

"They took my farm away and left me with nothing. I worked there for six years and I am angry about what the Chinese did to me" (Interviewee X13. 2015, 18 February).

"Their [the Chinese] involvement affected my economy negatively. My farm was my everything and now I do not have a way to survive" (Interviewee X11. 2015, 17 February).

The experiences from the interviewees in Boane and the three interviewees in Xai-Xai who had not been removed from their land differ greatly from the landless farmers'. They stated that they had not experienced a personal negative economic impact since the start of the Chinese involvement.

"When the Chinese came here I was scared because they took people's farms away, but my land was never affected and my economy is the same as before" (Interviewee X8. 2015, 18 February).

"I have nothing negative to say about the Chinese involvement here in Boane. I have only had a positive economic impact" (Interviewee B1. 2015, 5 February).

"The Chinese research center has not affected me negatively. I have better production and economic situation now" (Interviewee B2. 2015. 5 February).

5.2.1 GROUPS WITHIN THE DIMENSION OF ECONOMIC SUSTAINABILITY

The interviewees can be sorted into three groups based on the results within economic sustainability. The first group includes the five interviewees from Boane, who all saw a positive impact on their personal economic situation, with the new techniques they learned at the center, which helped production and in most cases also increased sales of their products.

The second group includes the interviewees from Xai-Xai who noticed a possibility of buying more rice, which they saw as a positive factor for their economic situation. Other than the increased possibilities of buying rice these farmers did not experience any positive impact on their personal economy since the start of the Chinese investments. They neither saw any changes in ways of farming or productivity since the Chinese involvement, nor any changes in the possibility of selling their products.

The last group includes the farmers from Xai-Xai who were removed from their land. The impact for these farmers had only been negative for their personal economic situation, since they were now left without land and a way to sustain themselves economically. These farmers were not able to evaluate any changes in ways of farming or productivity, or possibilities of selling products. The change is how they have gone from having land to being left with no land. The negative change for these people is thus of a major nature.

One interviewee is left outside these three groups. She belongs to the farmers in Xai-Xai who still have access to their land (X8). The thing that differentiates her from the other two farmers in this situation is the fact that she did not see a positive impact for her personal economic situation.

5.3 SOCIAL SUSTAINABILITY

When the interviewees in Boane were asked about their inclusion in the activities at the CITTAU research center, some (B1, B3 and B5) explained that they had attended one or more courses hosted at the center.

"I went to various courses (...) we learned various things about how to farm better (...) I sell more now and we also learned how to sell" (Interviewee B1. 2015, 5 February)

"I participated in the education at the center. I am a person who likes education and I am always volunteering to learn new things that I did not know of" (Interviewee B3. 2015, 5 February).

The others (B2 and B4) had not been included directly by attending courses, but mentioned that they felt included in the activities anyway since their colleagues, who had attended courses, could spread the knowledge to them.

"I did not go to the center yet but my colleagues already went. They learned new techniques, taught them to us and we applied them together at our joint farm (machamba escola). Since I learned the new things, I can implement new techniques that give better production. (...) I sell more now compared to before" (Interviewee B4. 2015, 5 February).

"Still, there has only been another group of farmers who have gone there [to the CITTAU research center] to learn things. But they explained to me what they had been taught" (Interviewee B2. 2015. 5 February).

When the interviewees in Xai-Xai were asked about their inclusion in the activities of the Chinese investments in rice production, as opposed to the interviewees in Boane, they all stated that they had not felt included at all in the activities (X6-X14).

"I have not been included in anything related to the Chinese investments here in Xai-Xai" (Interviewee X6. 2015, 17 February).

"I have never been included. They never invited us to anything and I have not benefitted from their investments" (Interviewee X9. 2015, 17 February).

When it comes to the possibilities of participation in decision-making processes related to the Chinese projects, all interviewees both from Boane and Xai-Xai except one (B5) stated that they had had no possibilities of participating. In the case of Xai-Xai some (X11 and X14) stressed how the Chinese appeared suddenly without giving people the chance to participate in the decision-making process. One interviewee (X9) explains how some people tried to find a lawyer but that there was no way of approaching the Chinese or the government in the case of Xai-Xai. The only person who said she had participated in the decision-making process

(B5) mentioned how she had taken part in some debates regarding the CITTAU research center but was still not sure about the final objective of the center.

"I participated in some debates but I never knew their final objective [at the research center]. I thought the center might have been for students in high-school or from the universities, but I discovered later that it was for us" (Interviewee B5. 2015, 5 February).

"I never participated in the decision-making process of the research center. No initial debates or something like that" (Interviewee B1. 2015, 5 February).

"I never participated in the decision-making process. They [the Chinese or the government] never invited us to talk about anything. We tried to contact a lawyer when we knew they were here, which did not work, and we were never invited to say anything initially. (Interviewee X9. 2015, 17 February).

"I never participated in anything. We were never invited. They appeared very suddenly" (Interviewee X11. 2015, 17 February).

When asked about their access to social resources related to the Chinese investments, there were some interviewees in Boane (B1, B3 and B5) who felt they had had direct access to the social resources at the CITTAU research center, since they had attended courses there. The others (B2, B4) felt they had indirect access through their colleagues. The main resource they had access to, directly or indirectly, was knowledge through education. Among the interviewed farmers in Boane there were some (B2, B4 and B5) who wished for more access to the knowledge and education at the center. Some (B2 and B3) explained that the Chinese announce to the community leaders when people can come to the center and how many are allowed. The farmers who wished for more access to the center expressed how they wanted to be able to go there more often and whenever they wanted to. One person (B2) suggested that the Chinese would come to the farmers and teach how to implement knowledge rather than calling people to the center.

"For me there is no problem. I have access to the center and I can go there and attend courses, get more knowledge and improve my work at the farm" (Interviewee B3. 2015, 5 February).

"I think it is very important the support they give to us at the center. I was one of the first to go there and I have access to the knowledge and information there. I want to go there many more times in the future" (Interviewee B5. 2015, 5 February).

"They call us at the center when there is a course and they say how many can come. So far I have not gone myself but my colleagues have and I learn from them. I wish I could go there whenever I wanted and learn things. I think it would be good if the Chinese also came to us at the farms and taught us things here" (Interviewee B2. 2015, 5 February).

In Xai-Xai most of the interviewees (X6, X8-X11, X13-X14) stated that they had had no access to any social resources connected to the Chinese investments or access to benefits related to the investments. The others (X7 and X12) stated that the only access they had had was to buying the rice that was produced by the Chinese. The biggest change in terms of access to resources had been for the farmers who had lost their land (X6, X9-X11, X13-X14). They all had had access to land where they farmed and sustained themselves, but had lost that access since the Chinese started investing in Xai-Xai.

"I have had no access to any resources with the Chinese. No benefits at all. I have lost my resource, my land" (Interviewee X6. 2015, 17 February).

"I have never had access to any resources or benefits that the Chinese brought here. They took away my land where I did my work and sustained my family" (Interviewee X9. 2015, 17 February).

"I do not have access to anything the Chinese are doing. The only thing I can do is buy their rice" (Interviewee X7. 2015, 18 February).

When it comes to the question of access to information regarding the activities and objectives of the CITTAU research center in Boane, most of the interviewees (B1-B4) had received information directly from the Chinese. The Chinese had explained that they were there helping the farmers gain more knowledge and to help the agricultural development in Mozambique and strengthen Sino-Mozambican cooperation. One interviewee in Boane (B5) differs from the others and stated that she had no access to information and was not sure what the objectives of the center were.

"I had information from the Chinese that they were going to build the center and what it was for. I was very happy that they were coming here" (Interviewee B4. 2015, 5 February).

"The Chinese told us that they are here to support the farmers and that the farmers who need education can go to the center and learn" (Interviewee B2. 2015, 5 February).

"They informed us that they are here through a cooperation between China and Mozambique to improve the agricultural development". (Interviewee B3. 2015, 5 February).

In Xai-Xai, the experiences were different from those in Boane. All of the interviewees said that they had no access to information of any kind regarding the Chinese investments. Two interviewees (X10 and X14) emphasized how the Chinese came very suddenly one day without any information.

"The Chinese came and took my land away without any prior information. I have no information on their objectives or the activities that they are involved in" (Interviewee X10. 2015, 18 February).

"They [the Chinese] came here and went directly for people's lands. I had no information on what they were planning to do. I still do not have any access to information about them" (Interviewee X8. 2015, 18 February).

Among all fourteen interviewees, only one (B3) felt that he could express his opinion regarding the Chinese involvement. This interviewee mentioned how he had had the possibility to express his opinion only when called to the CITTAU research center by the Chinese. Other than this he had no channels of communication to express his opinion and having it valued. Most other interviewees expressed difficulties in voicing their opinion and having them valued by higher authorities. Some of the interviewees (X9 and X14) mentioned the government as a problematic factor since they felt like it is closed for people to voice their opinions. One interviewee (X14) mentioned how people are scared to voice their opinions to the government.

"The government is not open for the people. If it were, the people could know what is going on and they could complain. But now people are afraid of complaining" (Interviewee X14. 2015, 18 February)

"When I am at the center I can express my opinion and they listen, but only when I am called there. Otherwise I am not sure where to turn" (Interviewee B3. 2015, 5 February).

"The only opinion that is valued is the government's. We [the farmers] are all alone in this" (Interviewee X9. 2015, 17 February).

According to most interviewees in Boane (B1, B3-B5) the most significant social change is the fact that there is more knowledge both in the society as a whole and on a personal level.

They also mentioned that there is a new social environment with bigger exchange of knowledge and ideas between people. One of these interviewees (B1) underlined the fact that she now had the possibility to teach others what she had learned at the center. One of the interviewees in Boane (B2) did not have any perceptions of changes in the social situation.

"We are learning things and exchanging experiences and knowledge. We are seeing improved quality in people's lives" (Interviewee B5. 2015, 5 February).

"There is a bigger exchange of knowledge now. My life is changed. Before I did not know much but now I learned a lot and can teach my colleagues" (Interviewee B1. 2015, 5 February).

"We have a new social environment with more knowledge. I was always working without thinking much about how to change techniques and improve sales and productivity, but now when I learned more, many things changed for the better" (Interviewee B3. 2015, 5 February).

In Xai-Xai some of the interviewees (X6, X9, X11, X13 and X14) stated that the social situation has changed and is now shaped by poverty, suffering and misery among the people. There is a feeling of powerlessness and desperation among the farmers who have lost their land. One interviewee (X14) pointed out how people are now scared of the government and their power in relation to the farmers. On the other hand, two of the interviewees in Xai-Xai (X7 and X8) had not noticed any changes in the social environment and two of the interviewees (X10 and X12) said they did not know whether there had been any changes in the social environment or not.

"We are suffering. The farmers are suffering and living very badly. (...) Even the people who are working for the Chinese are suffering. I do not even consider them workers, they gain so little" (Interviewee X11. 2015, 17 February)

"The government is closed and people are scared of them and what they will do. (...) We are suffering from what the Chinese did to us and we cannot complain" (Interviewee X14. 2015, 18 February).

"We are very bad here. We are desperate. We do not have anything and no way to feed our children. It is not easy asking for a job somewhere at this age, and working at the Chinese company is impossible. The working conditions there are terrible. I am begging for foreign countries to help us" (Interviewee X9. 2015, 17 February).

"I have not seen any social changes. For me it is the same as before the Chinese came here" (Interviewee X8. 2015, 18 February).

5.3.1 GROUPS WITHIN THE DIMENSION OF SOCIAL SUSTAINABILITY

Based on the results of the four first sub-themes related to social sustainability the interviewees can be sorted into two different groups. The first group includes the interviewees from Boane, except one (B5). They all had relatively similar experiences with only a couple of exceptions which will be mentioned further on. These interviewees felt like they were included directly or indirectly and that they had direct or indirect access to the resources at the CITTAU research center. Some of them had gone there personally and attended courses, while some had gained knowledge from colleagues who had been to the center. They felt like they had access to information regarding the objectives and activities at the center, but most of them however also felt like they had no chance of expressing their opinions and having them valued. All of them also felt like they had not been able to participate in the decision-making process related to the CITTAU research center. There are two individuals from Boane who differentiate themselves from this group. The first one (B3), is still included in the first group since his experience only differentiates slightly from the general view of the group. He felt he had the possibility of voicing his opinion and having it valued, but only when he was called to the center. The other individual (B5) is not included in any of the two groups since her answers differed from the others in more ways. She felt she had been able to participate in some parts of the decision-making process regarding the center, but still she did not feel she had information regarding the objectives and activities at the center.

The second group includes all interviewees from Xai-Xai. They stated that they had neither been included in any activities related to the Chinese investments, nor had they had any access to information about them. They also felt they had no possibility of expressing their opinions or having them valued by higher authority. They all also stated that they had had no possibility to participate in the decision-making process related to the Chinese investments. Most of the interviewees felt they had had no access to any social resources related to the Chinese investments. Some of them mentioned that they had access to buying the rice produced by the Chinese but this type of access is not considered here as a social resource.

When it comes to the sub-theme regarding social changes in Boane/Xai-Xai the interviewees can be divided into four groups based on their answers. The first group includes the interviewees from Boane who all expressed that there is more knowledge and a greater exchange of knowledge in the society now. The second group includes the interviewees in Xai-Xai who expressed that the society now is shaped by poverty, misery and suffering,

powerlessness and desperation. The third group includes the interviewees in Xai-Xai who had not noticed any changes in the social environment since the Chinese involvement and the last group includes the farmers in Xai-Xai and Boane who had no answers to this question.

5.4 ENVIRONMENTAL SUSTAINABILITY

When asked about whether the activities at the CITTAU research center had had any environmental impact on their personal sphere, such as impact on water access, water quality, changes in soil, pollution etc. in relation to their own farm or their immediate surroundings, the answers from some of the interviewees (B1, B3, B5) in Boane drifted towards answering questions within the other dimensions of sustainability. They started talking about other matters that seemed more important to them, such as what they had learned at the research center and how that had helped the productivity at their farms. This is what these interviewees developed in their answers:

"We learned how to line up the seeds better. We did it in another way before and now more things are growing" (Interviewee B1. 2015, 5 February).

"Here at the farms we had a certain amount of product growing before but now we have more. We learned new things" (Interviewee B3. 2015, 5 February).

"It is getting better and better all the time. We learned how to place the seeds and it is very different from before. Now it is generating much more products" (Interviewee B5. 2015, 5 February).

The other interviewees in Boane (B2, B4) together with the interviewees in Xai-Xai who still had their land (X7, X8, and X12) did not think the Chinese investments in rice production had had any environmental impact on their personal sphere.

"I have not seen any changes in terms of the environment. Things are the same here" (Interviewee B4. 2015, 5 February).

"I have not noticed any changes in the environment since they [the Chinese] started working here" (Interviewee X12. 2015, 18 February).

The interviewees who had been removed from their land (X6, X9-X11, X13-X14) emphasized the difficulty in answering the questions about environmental impact on their personal sphere. The change for them had been fundamental, which made it complicated

answering questions on changes at a more detailed level. Some of their answers tended to include other dimensions of sustainability that were more central to them.

"I can say that it impacted us since the Chinese took our land away. I do not know what the environmental impact would have been if I still had my land. Now it is impossible to say" (Interviewee X6. 2015, 17 February).

"I have had lots of problems with the Chinese. I was shocked when they came here. I do not even have money to buy their rice now. Their presence here impacted me and my land since they took it away. I do not know how to evaluate details on the environment with no land" (Interviewee X11. 2015, 17 February).

When it comes to the future situation, some interviewees in Boane (B1, B2 and B4) did not think the activities at the CITTAU center would have any future environmental impact on their personal sphere.

"I do not think the Chinese will impact the environment here around me. It is all good" (Interviewee B2. 2015, 5 February).

The other interviewees in Boane (B3 and B5), together with the farmers in Xai-Xai who still had their land (X7, X8 and X12), said they did not know and that they did not feel like they could answer the question.

"I do not really know about the future impact. I cannot answer that" (Interviewee B5. 2015, 5 February).

"About the future, I would not know. I do not think I can answer that question" (Interviewee X7. 2015, 18 February).

The farmers in Xai-Xai who had been removed from their land (X6, X9-X11, X13 and X14) answered in a similar way as in regards to the current environmental impact in their personal sphere and underlined the difficulty in answering questions of this kind without land.

"For the future we have nothing if we do not have our lands. That is what matters to me. Only then can we see any environmental changes in the lands and waters" (Interviewee X6. 2015, 17 February).

"We are not working at our farms anymore so the future environmental impact on our lands are impossible for us to evaluate" (Interviewee X9. 2015, 17 February).

In addition to questions on the environmental impact of the Chinese involvement on their personal sphere, the interviewees were also asked about their perceptions of the current or future environmental impact in Boane/Xai-Xai on a more general level. All interviewees, both in Boane and Xai-Xai answered that they did not know and that they could not answer the question.

"I do not know about the environment in Boane in general. I do not have much to say when it comes to that" (Interviewee B1, 2015, 5 February).

"I cannot answer that. I do not know much about the environmental impact in Xai-Xai" (Interviewee X10, 18 February).

5.4.1 GROUPS WITHIN THE DIMENSION OF ENVIRONMENTAL SUSTAINABILITY

Based on the results related to environmental sustainability the interviewees can be divided into four groups. The first group includes the farmers in Xai-Xai who had been removed from their farms. On the questions regarding the environmental impact in their personal sphere, currently or in the future, they all emphasized the difficulty in answering questions on a more detailed level since they no longer had any land. The impact on them is huge since they no longer have access to their land and they mentioned how impossible it was to evaluate anything regarding the environment during these conditions. Regarding their thoughts on environmental impact in Xai-Xai in general they all mentioned that they did not know much about that and could not answer the question.

The second group includes the farmers in Xai-Xai who did not think the Chinese investments had had any environmental impact on their personal sphere. These farmers neither had answers to the questions related to future environmental impact on their personal sphere nor the impact on Xai-Xai in general.

The third group includes the farmers from Boane whose answers drifted towards other areas when asked about the current environmental impact on their personal sphere. Neither regarding the future impact on their personal sphere nor the environmental impact in Boane in general did they have any answers to give.

The fourth group includes the interviewees in Boane who did not think the Chinese involvement had had any impact on the environment in their personal sphere, and who did not think it would impact in the future either. On a general level in Boane they were not able to give any answers. One individual (B1) differentiates herself a bit from the others. Her answers drifted away towards other issues when asked whether the Chinese involvement had had any

impact on the environment in her personal sphere, but she did not think it would have any impact in the future either. On the environmental impact in Boane, she was not able to give an answer.

6. ANALYTICAL DISCUSSION

This chapter will further discuss the research findings within the economic, social and environmental dimensions of sustainability, and the theme of perceptions. Patterns and links between the different dimensions and themes will also be explored.

6.1 ECONOMIC SUSTAINABILITY

As previously discussed in chapter 3.2.1, increased productive potential can be defined as a central aspect of economic sustainability (Rogers, Jalal and Boyd, 2008: 260-266; WCED, 1987). *Productive potential*, together with *basic needs* have been the two theoretical themes within which the economic dimension of sustainability has been analyzed. As defined in chapter 3.2.1, there are several issues that can be placed within the definition of what constitutes basic economic needs (Diesendorf, 2000: 4; WCED, 1987). Based on the research findings in this study, access to food/adequate diet, and jobs appeared to be the most central basic economic needs for the farmers to discuss.

Within the dimension of economic sustainability, the research findings show that there is a big contrast between the farmers in Boane, who all had experienced improved productivity and improved possibilities of meeting basic needs, and the farmers in Xai-Xai who had been removed from their land by the Chinese and now had no productivity, and trouble meeting their basic needs. The farmers in Boane had more access to food since their production had increased, and their job situation was strengthened since they were able to produce more on their farms. The farmers in Xai-Xai no longer had access to food, since they were no longer able to produce anything, and they had been left without jobs since their previous work was at their farms. There is not only a contrast between the two towns, but also within Xai-Xai, between the farmers who had been left landless and the rest, whose productive potential and ability to meet basic needs had been left unchanged. This shows how Chinese involvement in Boane and Xai-Xai has had a very different impact on economic sustainability, for different farmers. For the farmers in this study, productivity was crucial for meeting basic needs, and productivity can be closely related to the access to land. Without land there can be no productivity and without productivity the farmers cannot meet their basic needs. Access to

land is defined in chapter 3.2.2 as an important component of access to social resources, related to the social dimension of sustainability (Rogers, Jalal and Boyd, 2008: 221). Access to land was however important within all dimensions and defined the experiences of the landless farmers within the economic, social and environmental dimensions of sustainability, and within the theme of perceptions.

6.2 SOCIAL SUSTAINABILITY

The research findings within the dimension of social sustainability have been discussed through the three theoretical themes; *access to social resources*, *political participation* and *efficient community action*, together with emotional aspects. The possibility of active political participation for the citizens was defined in chapter 3.2.2 as an important factor for social sustainability (McKenzie, 2004: 23; Omann and Spangenberg, 2002: 5), just as the possibility of engaging in efficient community action (McKenzie, 2004: 23). The research findings show how the interviewees' in Boane and Xai-Xai share similar experiences when it comes to the themes of political participation and efficient community action. There are however great differences in emotional experiences, which was discussed in chapter 3.2.2 as an important aspect for understanding social sustainability (Rogers, Jalal and Boyd, 2008: 219). While the interviewees in Boane experienced a social climate filled with more knowledge, some interviewees in Xai-Xai accentuated poverty, misery, suffering, desperation and powerlessness, while some had not noticed any social changes linked to emotional aspects. Since the experiences of political participation and efficient community action were similar among the interviewees, it thus becomes relevant to look at other aspects of social sustainability to understand the differing emotional experiences. As discussed in chapter 3.2.2, access to social resources can be seen as central to social sustainability, and there are several factors which can be defined as social resources (McKenzie, 2004: 23; Omann and Spangenberg, 2002: 5-6; Rogers, Jalal and Boyd, 2008: 221). In Boane the theme of access to social resources, with a focus on access to education, seems to be what has mostly influenced the interviewees' emotional experiences. For the landless farmers in Xai-Xai, it is however the loss of access to land that seems to have influenced their emotional experiences the most. The farmers in Xai-Xai who still had access to their land had not experienced any changes within the dimension of social sustainability.

6.3 ENVIRONMENTAL SUSTAINABILITY

The environmental dimension of sustainability has been organized through two levels; experiences on the environmental impact on a personal level and experiences on a general level. As discussed in chapter 3.2.3, issues regarding pollution, biological diversity, and soil and land conservation are important to consider when examining environmental sustainability (Rogers, Jalal and Boyd, 2008: 109; Diesendorf, 2000: 2). There are some factors shown in the research findings, which highlight that the dimension of environmental sustainability does not seem to be the most central to the experiences of the interviewees. A large number of the interviewees were not able to give answers to several of the questions related to environmental sustainability. Sometimes their answers drifted towards other dimensions of sustainability and in the cases where the interviewees had any answers on the environment, they were saying there had been no environmental impact. The landless farmers had trouble evaluating the environmental impact, emphasizing once again the lack of access to land as their main concern. A conclusion can be drawn from these results that the Chinese investments either have had very low environmental impact in Boane and Xai-Xai, or that there is little awareness among the interviewees of possible environmental effects.

6.4 PERCEPTIONS

Based on the research findings within the theme of perceptions it can be seen that the interviewees in Boane share the same positive perceptions while the interviewees in Xai-Xai are more divided and present a greater variety. From the findings in Xai-Xai, a certain complexity in the relationship between the government and the people can be found. The interviewees mention the discrepancy between the benefits for the government and for the people. The complexity is also emphasized by the interviewee who did not want to answer the questions on perceptions since she expressed her loyalty to Frelimo. It is not possible to say what her perceptions are, but since she put her loyalty to the government first, and did not want to answer the questions, it is possible to assume that her perceptions could be harmful to the image of the government.

6.5 LINKS AND PATTERNS

Based on the results of this study, a clear link can be found between how the farmers have been personally affected by the Chinese involvement, and what their perceptions of Sino-

Mozambican relations are. The interviewees shared similar experiences when it came to the low level of political participation and efficient community action in both Boane and Xai-Xai, and the environmental dimension had not been central for any of the interviewees. Their perceptions were however very different. It can be seen that their perceptions and generally positive or negative experiences of Chinese involvement are determined by the aspects related to productive potential, meeting basic needs, access to land, and access to education. The interviewees who had experienced a positive impact with increased productivity, increased possibility of meeting basic needs, and more education, also expressed positive perceptions of Sino-Mozambican relations. The interviewees who on the other hand had experienced a negative impact, by losing access to land and by not being able to produce and meet their basic needs, generally expressed negative perceptions of Chinese involvement in Mozambique. A clear exception is the case of one interviewee in Xai-Xai, who had been removed from her land. She stressed how upset she was with how the Chinese had treated her, but she still stated that she had positive perceptions of Chinese involvement in Mozambique, both nationally and locally. She did not wish to elaborate further to explain this discrepancy.

The results within the social and economic dimensions of sustainability can be closely related to each other. The people who did not have access to land, and who could not produce anything or have their basic needs met economically, highlighted problems with the lack of access to social resources, lack of political participation and lack of efficient community action. The ones that had been positively affected economically, or who had not seen any impact on their personal economic situation, stated that they had not participated in the decision-making process, lacked information, or had not been able to voice their opinion efficiently, without further reflections. For example, the interviewees in Boane generally did not reflect on the fact that they only got their information from the Chinese, that they had not participated politically, and had not had the possibility to engage in efficient community action. This did not seem to concern them, possibly because they had had no reason to be concerned with the Chinese involvement. A conclusion can be drawn that negative experiences within the economic dimension of sustainability and negative experiences when it comes to access to land, increases the level of reflection about the lack of political participation, efficient community action and access to social resources. One of the interviewees stands out from the others since she had participated in some debates in the decision-making process, but did not feel like she had any information on the objectives of the research center. It is interesting to note that the only person who had had positive experiences within the theme of political participation was the only one in Boane who felt she lacked the

social resource of information. She did not elaborate on this topic further, which makes it difficult finding a clear explanation for this discrepancy.

The study shows that the two Chinese projects have had a very different impact on different farmers, mainly within the economic and social dimensions of sustainability, even though they have quite similar objectives and are partly run by the same company. Both projects want to help Mozambican farmers increase production by providing a transfer of knowledge or technology. The difference between the two is that in Boane, the education of farmers seems to be the central part of the investment, while in Xai-Xai the rice production seems to be at focus. Moreover, the projects have not only had different impact in different towns, but also different impact for farmers in Xai-Xai, living within the same area. When it comes to the social dimension of sustainable development the conditions for the participants were quite similar within some themes. The level of political participation and efficient community action was very low in both Boane and Xai-Xai. This shows that the different outcomes of the projects were not determined by differences in social and political power among the farmers. It rather appears as if the impact of the projects was determined by other factors, such as Chinese motives and strategies. This makes the farmers extremely vulnerable. Whether the farmers experience a positive or negative impact in their lives seems to be random. If the Chinese motives and courses of action coincide with the benefits of the farmers, as in Boane, the farmers can be considered lucky. Otherwise, they might be left landless, as in Xai-Xai. The aspect of chance can also be seen within the group of farmers in Xai-Xai who work in the same area. For some there have been no changes, but for some the Chinese involvement has been devastating.

The results of this study show that for the same people there can be positive conditions within one dimension of sustainable development and negative conditions within another. For example, the Chinese project in Boane has had a positive impact on the economic conditions for the interviewees, but the farmers' level of political participation and efficient community action was very low. As mentioned in chapter 3.2, it can be said that sustainable development requires integration of action in three key areas; economic, social, and environmental sustainability (Chasek, 2012: 254). For development to be sustainable, it needs to be sustainable within all dimensions. It is not possible to draw the conclusion that there is sustainable development based only on perceptions and positive experiences. The project in Boane may seem sustainable for the farmers now, since things have developed in a positive economic direction, and contributed with the social resources of knowledge and information. Should however the Chinese interests or strategies change, suddenly leaving farmers in less

fortunate economic, social or environmental situations, the farmers' lack of social and political power through political participation and efficient community action will shine through when they are not able to influence their situation, as has been the case for the landless farmers in Xai-Xai.

7. CONCLUSIONS

At the beginning of this study, two research questions that would help fulfill the aim of the study were presented. The first question was:

How are Sino-Mozambican relations perceived by local farmers in the villages of Boane and Xai Xai in Mozambique?

The research findings showed that the farmers had very different perceptions of Sino-Mozambican relations, both on a national and local level. A clear link was identified between the perceptions of the farmers and the way they had been personally affected by the Chinese investments. It could be seen that their perceptions and generally positive or negative experiences of Chinese involvement were determined by the aspects related to productive potential, meeting basic needs, access to land, and access to education. The farmers who had experienced a positive economic and social impact from the Chinese investments, generally had positive perceptions of Sino-Mozambican relations, while farmers who had experienced a negative economic and social impact from the Chinese investments, generally had negative perceptions of Sino-Mozambican relations.

The second research question was:

In what way has Chinese involvement in Boane and Xai-Xai had an impact on the lives of farmers in these towns, and how can this impact be understood within the framework of sustainable development?

The research findings showed that there were big differences in the experiences of the impact Chinese involvement had had on economic sustainability between Boane and Xai-Xai, and also within Xai-Xai. It was also shown that for the farmers, productivity was crucial for meeting basic needs, and with no access to land, there can be no productivity. Access to land thus becomes important for the understanding of the impact on economic sustainability.

It was shown that the farmers' experiences of political participation and efficient community action were very similar in Boane and Xai-Xai, but that the emotional experiences

related to social sustainability differed greatly. For the farmers in Boane it appeared as if access to education mostly influenced their emotional experiences, while for the landless farmers in Xai-Xai, the lack of access to land seemed to have had the most influence on their emotional experiences. The farmers in Xai-Xai who still had access to their land had not experienced any particular changes related to economic and social sustainability since the Chinese investments.

A close relation between economic and social sustainability could be identified. The farmers who had had negative experiences within the economic dimension of sustainability and negative experiences when it came to access to land, had an increased level of reflection about the lack of political participation, efficient community action and access to social resources, themes that were found within the dimension of social sustainability.

The results also showed that the environmental dimension of sustainability did not seem to be the most central to the interviewees, since they in many cases were not able to give answers to those questions. The few answers that were given stressed that they had had no experience of an environmental impact. The conclusion was drawn that either the environmental impact had in fact been very low, or there was little awareness among the interviewees on possible environmental effects.

The social conditions in Boane and Xai-Xai were similar regarding the low political participation and low possibilities of efficient community action, but the outcomes of the projects had been very different for the farmers. Based on those results it was argued that the different outcomes of the projects are not determined by differences in social and political power of the farmers, but by other factors, such as Chinese motives and strategies. Whether farmers would experience a positive or negative impact from the projects seemed to a large degree to be random. If they were lucky, Chinese interests and strategies would coincide with the benefits of the farmers, as in Boane. Otherwise, they could be left in very unfortunate situations, as in Xai-Xai.

Finally, the results showed that for the same people there could be positive conditions within one dimension of sustainable development and negative conditions within another. It was however argued that in order to achieve sustainable development, sustainability needed to be reached within all dimensions. The interconnections between the dimensions were thus emphasized.

8. CONTRIBUTION TO THE FIELD OF RESEARCH

This section explores how the results of my study can be related to the previous research of Sino-Mozambican relations, and what contribution has been made to the field.

As mentioned in chapter 1.2, there are some case studies performed of the project in Xai-Xai (Chichava, 2014b; Chichava, 2015; Ganho, 2013). This present study differs from the previous studies in the way it is conducted and in the conclusions drawn. Both Chichava and Ganho explain the project thoroughly, and draw conclusions that can explain problems that have occurred. However, as mentioned previously, they leave local perspectives out. The previous studies of the CITTAU research center in Boane (Chichava, Durán and Jiang, 2014; Chichava and Fingermann, 2015) focus on the management and functioning of the center, alone or compared to other projects. My study lifts the local perspectives and focuses on the impact of the Chinese projects on the lives of farmers in Boane and Xai-Xai. The interviews with farmers are not only one part of the study, but the main focus. In addition to adding a local perspective based on perceptions and experiences from farmers, this study complements the previous research by adding knowledge on how Chinese involvement in Mozambique can be understood within the theoretical framework of sustainable development, a concept that has not been discussed in the previous research.

In chapter 1.2 it was explained that one area of the previous research focuses on the Chinese motives for investing in Mozambique, with scholars presenting different arguments on possible Chinese motives (Robinson, 2012; Stensrud-Ekman, 2014; Bunkenborg, 2014; Tembe and Xu, 2013). My study does not analyze which possible motives the Chinese might have for their involvement in Boane and Xai-Xai, and can therefore not add knowledge to the research focused on motives. What can be said, however, is that Chinese motives appear to be important for the outcomes of the projects. In Xai-Xai it appeared as if Chinese motives were not focused on the benefits of the farmers, while in Boane the benefits of the farmers appeared more central to the Chinese, leading to different outcomes for the farmers.

Previous research on discourses of Chinese involvement in Mozambique focuses on the gap in discourses between the government and the civil society (Chichava, 2008; Feijó, 2014; Lagerkvist, 2014). Feijó (2014) tends to treat the grassroots of the society as one entity, and Chichava (2008) puts civil society together as one homogenous group. This study contributes with attitudes from farmers and shows that there are differences in perceptions and experienced between the farmers. This underlines the complexity of Sino-Mozambican relations and shows how attitudes within a specific group of the society can differ greatly.

This is something that Lagerkvist (2014) reflects upon. The awareness shown in his study is important for more transparent discourse analyses, and one should be careful seeing groups of the society as homogenous entities.

9. FINAL REFLECTIONS

During the process of this study questions regarding the lack of social and political power of the farmers have arisen. Future research could explore why there is such a lack and what action can be taken to strengthen the social and political power of the farmers, so that they can influence the political decisions and their personal situation to a greater extent. Future research could also explore the development of mechanisms that control the Chinese investments so that they are not allowed to mistreat the Mozambican population, as has been the case for some farmers in Xai-Xai. The existing research focuses on the understandings of Sino-Mozambican relations. This kind of knowledge is important and since the field of research is still rather limited, more studies of this kind are important to conduct. In addition to research on general understandings of the Sino-Mozambican relationship, it is important to include research that lifts the perspectives of the local population. Research based on local perspectives provides important in-depth knowledge from the people who are affected by the Chinese investments.

This is a qualitative study and the results here only represent the views of the participants of this particular study. The results cannot explain farmers' experiences and perceptions of Chinese involvement on a general level. There are however patterns found in this research that are relevant for the understanding of general Sino-Mozambican relations. This study shows that it is not possible to draw the conclusion that Chinese involvement in Mozambique is either good or bad for the local population. Different farmers have different views. It is however possible to draw the conclusion that Chinese involvement in Mozambique is not sustainable, based on the theoretical definitions of sustainable development in this study. There might be other Chinese projects in Mozambique, within the same or other sectors, where all conditions for sustainability are met. However, the projects in this study both showed lacks related to sustainable development and from these results it is possible to say that challenges remain for Sino-Mozambican relations to be called sustainable. One case study cannot provide a generalization of Chinese involvement in Mozambique. Future research can however repeat similar case studies and examine the patterns found in this study in other context. This could make it possible to come closer to a more general understanding of the complex Sino-Mozambican relations.

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APPENDICES

Appendix 1

Interview guide

Interviewer: _____
Interviewee: _____
Female/Male: _____ Age: _____
Date: _____ Place: _____
Occupation: _____

My name is Hanna Skansholm and I am a Master student in Global Studies at the University of Gothenburg. I am writing my master thesis on the Chinese involvement in Mozambique. This is a topic that I find very interesting and relevant to study considering the growing cooperation between China and Mozambique in various sectors of the society. The aim of my study is to gain a better understanding of how the Sino-Mozambican relations are perceived by the local populations in Boane and Xai Xai. The aim is also to understand how the Chinese involvement can be understood within the framework of sustainable development in these villages.

I have invited you to participate in this interview since you are a local farmer in Boane/Xai Xai. The agricultural sector is an important sector when it comes to Sino-Mozambican relations and I consider it very important to hear the voices from local farmers in order to contribute to the research with their very important perspective. I will interview local farmers here in Boane/Xai Xai and also in Boane/Xai Xai. This will give me empirical material from two different cases where the Chinese involvement has been present lately.

The interview includes five sectors; basic information, general perceptions, economic sustainability, environmental sustainability, and social sustainability. You are welcome to elaborate as much as you want during the interview. Your name will be kept confidential and will not be in the thesis. Participation is voluntary and if you want to stop anytime during the interview that is fine, and then the data will not be used in the study. I would like to record the interview if that is ok with the interviewee, so that the information given is interpreted correctly and that important aspects are not lost.

The participant confirms that she/he has been informed about the aim of the study and in what way she/he can contribute. She/he is also informed that the participation is voluntary and that the interview can be stopped at any chosen time, and that his/her name will be kept confidential.

The participant confirms this information and agrees to participate in the study

Signature of the interviewee

Interview questions

Personal details

- What kind of agriculture do you work with?
- How many years have you been working with this?
- Have you had any other occupations prior to this?

Perceptions of the Chinese involvement:

1. Chinese involvement in Mozambique stretches over many different sectors. What is your general perception of the Chinese involvement in Mozambique?
2. Would you say that their presence is generally good or bad for Mozambique?
3. In 2011 the CITTAU research centre opened here in Boane, it is sponsored and managed by a Chinese company. The centre is the main Chinese investment in Boane. What is your perception of the Chinese involvement here in Boane? (for Xai-Xai: Here in Xai-Xai the Chinese involvement is present primarily through their investments in rice production. What is your perception of the Chinese involvement here in Xai-Xai?)
4. Would you say that their presence is generally good or bad for Boane/Xai-Xai?

Economic sustainability

5. Have you as a local farmer been included in any of the activities in the CITTAU research centre? / Have you as a local farmer been included in any of the activities related to the Chinese investments in Xai-Xai?
6. Have you experienced any positive personal economic impact from the Chinese involvement?
7. Have you experienced any negative personal economic impact from the Chinese involvement?
8. Since the establishment of the CITTAU research centre in 2011/the start of the Chinese investments in rice production, has the way of farming changed anything for you in terms of productivity on your farm? Has it changed in any way in the techniques that you are using (irrigation system, machines, seeds etc)?
9. Has the possibility for you to sell your products changed in any way since the establishment of the centre?

Environmental sustainability

10. Has the activities in the CITTAU research centre/Chinese investments in rice production had any environmental impact on your personal sphere or on your farm? For example changes in the water quality, water access, soil, pollution etc.
11. Do you believe the activities in the centre/Chinese investments in rice production will impact your personal sphere or your farm environmentally in the future? For example possible changes in the water quality, water access, soil, pollution etc.
12. Do you believe the activities at the centre/investments in rice production has had/will have any impact on the environment in Boane/Xai-Xai?

Social sustainability

13. Since the initial talks of establishing the research centre until today/since before the start of the Chinese investments in rice production, have you had any opportunity to participate in the decision-making process related to the investments?
14. Do you believe you have access to any social resources/benefits at the centre/related to the rice production? or that your level of access to social resources has changed anything since the Chinese involvement?
15. Do you believe you have information about the purpose and activities at the research centre/investments in rice production?
16. Since the establishment of the CITTAU research centre/Chinese investments in rice production, have you noticed any difference in the social situation personally or in Boane/Xai-Xai?
17. Do you believe you have the possibility to voice your opinions in relation to the Chinese project, and having them valued by higher authority?
18. Are there any final comments that you would like to add?

Appendix 2

Interview Information

Boane

B1:

Place where the interview took place: Farmlands outside of Boane, Mozambique (Palo Samuel Kakhomba)

Date of the interview: 2015-02-05

Duration of the interview: 30 minutes

B2:

Place where the interview took place: Farmlands outside of Boane, Mozambique (Palo Samuel Kakhomba)

Date of the interview: 2015-02-05

Duration of the interview: 22 minutes

B3:

Place where the interview took place: Farmlands outside of Boane, Mozambique (Palo Samuel Kakhomba)

Date of the interview: 2015-02-05

Duration of the interview: 29 minutes

B4:

Place where the interview took place: Farmlands outside of Boane, Mozambique (Palo Samuel Kakhomba)

Date of the interview: 2015-02-05

Duration of the interview: 25 minutes

B5:

Place where the interview took place: Farmlands outside of Boane, Mozambique (Palo Samuel Kakhomba)

Date of the interview: 2015-02-05

Duration of the interview: 30 minutes

Xai-Xai:

X6:

Place where the interview took place: Offices of FONGA in Xai-Xai, Mozambique
Date of the interview: 2015-02-17
Duration of the interview: 22 minutes

X7:

Place where the interview took place: Farmlands outside of Xai-Xai, Mozambique
Date of the interview: 2015-02-18
Duration of the interview: 27 minutes

X8:

Place where the interview took place: Farmlands outside of Xai-Xai, Mozambique
Date of the interview: 2015-02-18
Duration of the interview: 21 minutes

X9:

Place where the interview took place: Offices of FONGA in Xai-Xai, Mozambique
Date of the interview: 2015-02-17
Duration of the interview: 18 minutes

X10:

Place where the interview took place: Farmlands outside of Xai-Xai, Mozambique
Date of the interview: 2015-02-18
Duration of the interview: 15 minutes

X11:

Place where the interview took place: Offices of FONGA in Xai-Xai, Mozambique
Date of the interview: 2015-02-17
Duration of the interview: 30 minutes

X12:

Place where the interview took place: Farmlands outside of Xai-Xai, Mozambique
Date of the interview: 2015-02-18
Duration of the interview: 16 minutes

X13:

Place where the interview took place: Farmlands outside of Xai-Xai, Mozambique
Date of the interview: 2015-02-18

Duration of the interview: 21 minutes

X14:

Place where the interview took place: Farmlands outside of Xai-Xai, Mozambique

Date of the interview: 2015-02-18

Duration of the interview: 20 minutes

Appendix 3

Conceptual framework

2. Economic sustainability

- 2:1 Inclusion in the activities of the Chinese project/investments
- 2:2 Experience of personal positive economic impact from the Chinese project/investments
- 2:3 Experience of personal negative economic impact from the Chinese project/investments
- 2:4 Changes in ways of farming and productivity since the start of the Chinese project/investments
- 2:5 Changes in possibilities of selling products since the start of the Chinese project/investment

3. Social sustainability

- 3:1 Possibilities of participation in decision-making processes related to the Chinese project/investments
- 3:2 Level of access to social resources/benefits related to the Chinese project/investments
- 3:3 Level of access to information regarding the objectives and activities of the Chinese project/investments
- 3:4 Possibilities of personal opinion on the Chinese project/investment being respected and valued by higher authorities
- 3:5 Changes in social situation in Boane/Xai-Xai or personally after the start of the Chinese project/investments

4. Perceptions

- 4:1 Perceptions of Chinese involvement in Mozambique in general
- 4:2 Perceptions of Chinese involvement in Boane/Xai-Xai

5. Environmental sustainability

- 5:1 Environmental impact in personal sphere since after the start of the Chinese project/investments
- 5:2 Perceptions of future environmental impact in personal sphere
- 5:3 Perceptions of current or future environmental impact in Boane/Xai-Xai

Appendix 4 – Economic sustainability

	2:1 Inclusion in the activities of the Chinese project/investments	2:2 Experience of personal positive economic impact from the Chinese project/investments	2:3 Experience of personal negative economic impact from the Chinese project/investments	2:4 Changes in ways of farming and productivity since the start of the Chinese project/investments	2:5 Changes in possibilities of selling products since the start of the Chinese project/investments
<i>Interviewee</i>					
B1	Went to several of the information/teaching activities at the center. Learned several things about how to improve their farming. Learned new techniques of how to farm more efficiently. She can teach her colleagues what she learned at the center.	She learned how to farm more efficiently and is able to sell more products now.	She did not express any	They taught her how to place the seeds so that there is more efficiency in the farming.	She sells more since she has more products to sell. She also learned more about how to sell.
B2	He has not yet been to any course at the center but others have gone and could include him by explained to him what they learned	They are now able to sell products and not only farm for their families, since the production has increased.	He did not express any	They helped with new irrigation system and taught people how to farm with new seeds and new techniques which has made people able to produce more and sell their products	He still sells a little since he needs some more new material. He has however started selling some, as opposed to before.
B3	He went three times to different courses at the center.	There is a bigger production now. They can sell their products now.	None	There is a difference. The Chinese helped with new techniques which gave more products and possibilities to sell.	He did not sell before but now he does. Last year he did better than ever before.

B4	She has not been there but could take part in the activities through colleagues who could teach her what they learned.	She learned new things from colleagues which led to better production. She sells more than before.	None	The Chinese taught new techniques on how to farm more efficiently	She sells more than she did before
B5	She has been at the center and learned new efficient farming techniques	She is producing more and it is growing better	None	She learned new techniques on how to plant corn and beans more efficiently	She has not yet started using the new techniques on her personal farm, only the one that belongs to the community
X6	She has not been included at all	She has nothing positive to say about it	She says there has been a lot of negative consequences. Before the Chinese came she had a farm with potatoes, corn and many other things. They came and took and destroyed everything and made her life very bad. She has no land	She does not think the techniques changed anything but she has no land to see if anything changed	Since they took everything she had she cannot sell anything at all anymore. It affected her very badly.
X7	She has not been included	She can buy more rice but other than that she has not had any personal benefits	She has not been affected negatively by the investments	She has not seen any changes in techniques	She does not sell her products and did not do that before the Chinese came either.
X8	She has not been included	She cannot see any positive impact	She was scared when they came without noticed and wanted to take over people's farms. But she kept her land so she has not personally been affected negatively	She does not think the techniques have changed anything.	She does not sell her products and did not do that before the Chinese came either.

X9	She has not been included	She has not had any benefits from their investments	She says that she had her farm and one day the Chinese entered and took it away. They destroyed everything. Before they came she was able to feed her children and pay for school. After they came she is crying with her children in her arms, not being able to feed them or send them to school.	She does not know how to evaluate that when she no longer has her land	She says it is not possible to sell anything considering she is left with no land.
X10	She has not been included	She has not been positively affected by the Chinese involvement in any way	She has been affected very badly from the Chinese investments. She had her land where she was farming but the Chinese came one day and took it away and started their project there. So now she has nothing.	She has no land anymore so she could not say.	It is impossible for her to sell anything now since she has no land anymore.
X11	She has never been included in any activities	The Chinese involvement has not had any positive effects on her life. If she was going to work for them they would only pay 50 meticaïs (USD 1,4) for 12 hours of work.	She has felt many negative impact on her life. She had land where she farmed to sustain herself and her family. The Chinese came and took everything away so now she has nothing and can not sustain herself.	There is no way of telling since she has no land anymore	It is impossible for her to sell anything now since she has no land anymore.
X12	She has not been included in any activities	She can buy more rice than before but other than that she has not had any personal benefits.	She has not been removed from her land so she has no negative impact in her life from the Chinese involvement	No difference	No difference. She farms for her family only.
X13	She has not been included at all	She has not seen any positive effects for her	They took away her land and she is very upset with what they did to her. She has nowhere to farm anymore.	She has no land anymore so she could not say.	She has no perception since she has no land anymore

X14	She has not been included	She never benefitted from anything related to the Chinese investments	They removed her from her land and left her with nothing.	She has no land so there is no way for her to see any difference	Since she has no land it is impossible for her to sell anything
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Appendix 5 – Social sustainability

	3:1 Possibilities of participation in decision-making processes related to the Chinese project/investments	3:2 Level of access to social resources/benefits related to the Chinese project/investments	3:3 Level of access to information regarding the objectives and activities of the Chinese project/investments	3:4 Possibilities of personal opinion on the Chinese project/investments being respected and valued by higher authorities	3:5 Changes in social situation in Boane/Xai-Xai or personally after the start of the Chinese project/investments.
<i>Interviewee</i>					
B1	She has not had the possibility to participate in the decision-making process	She has had access to some courses at the center and the exchange of knowledge at the center.	The Chinese explained the activities and objectives of the center when she was there participating in the courses.	She is not sure were to turn	There is a bigger exchange of knowledge and ideas and she can teach her colleagues what she has learned at the center. She gained knowledge.
B2	He has not had the possibility to participate in the decision-making process	He has not yet had personal access to the resources at the center. Only through colleagues. They will call them and say that on X occasion there will be a course and this many farmers can come. He wishes that they would come to the farmers and implement their knowledge in addition to calling people to the center. This would be more concrete and helpful for the farmers.	The Chinese have told them that they are here to help and that the farmers who wants more knowledge can come and get educated at the center.	He has not communicated with them since he has not been to the center yet.	He has no perceptions of this matter
B3	He has not had the possibility to participate in the decision-making process	He has had access to courses at the center. They tell the leaders of the farms that there will be courses and some of the farmers can go there. He has access to information and knowledge at the center but he has no access to material. The Chinese do not help with that. Some things cannot be done because of a lack of materials	The Chinese have informed him that they are here to help the cooperation between Mozambique and China and that they want to improve the agricultural development in Mozambique.	He is called to the center and has no strong channels to express his opinion when not called	There is a new social environment with more exchange in knowledge. He gained more knowledge.

B4	She has not had the possibility to participate in the decision-making process	She has not had personal access to the courses at the center but she has learned through others. She feels like she does not have access to certain materials that would help develop the farming even more. She would like to have access to go to the center whenever she likes to learn things.	She has had information that they were gonna build the center and help the farmers	She has not been able to express her opinion and affect very much	There has been a bigger exchange of knowledge between people. She learned new things from colleagues.
B5	She participated in some debates but was not sure about the final objective of the center	She had access to courses at the center. She would like to have access more often and be able to be more involved in who gets to go to the courses	She is not sure about the objectives of the center. She does not think she has very much information on that	She has not been able to express her opinion and affect very much	She thinks that the education has left the community with bigger knowledge and exchanges of experiences. She gained knowledge.
X6	She says there was no warning, no meeting, nothing. So she had no possibility of participating in the process. The government controls everything and it is not benefitting the population.	She has had no access to any benefits related to the project. The government controls everything and it is not benefitting the population.	She has not had any information of any kind on what the Chinese are doing here and how it is gonna affect her life.	She feels like her opinion is not valued at all. She says that the local people who managed to get a job with the Chinese are actually working almost like slaves	She says the Chinese investments brought misery to the people in her town.
X7	She never had any part of that process	She never had access to any benefits related to their investments other than the possibility to buy their rice	She has no information on their activities or objectives	She has had no possibility to voice her opinion and affect the situation	She does not notice any social change
X8	She has not had the possibility to participate in the decision-making process	She has had no access to any benefits related to the project.	She has not had any information of the objectives and activities	She does not know how to approach them and nor does she want to	She has not noticed anything
X9	She says she has never been able to participate. They tried to find a lawyer but there was no way to approach the Chinese or the government	She has never had access to any benefits.	She has not received any information of any kind	She says the only opinion that is valued is the government's. The population's is worth nothing.	She says it has brought poverty to the people.

X10	She has not been able to participate in any way	She has never had access to any benefits.	She says they just came one day without any information and destroyed everything	Her opinion has not been valued	She has no perceptions on this matter
X11	She has never been able to participate. They appeared suddenly without notice.	One day she might have access to some of the benefits but yet she has never been called to participate in anything related to the project	She has never received any information.	Her opinion has not been valued	The Chinese have brought suffering to the people, even the ones they employ for horrible salaries.
X12	She has not been able to participate in any way	She can buy the rice that is produced. Other than that she has no access to benefits or resources.	She has not recieved any information of any kind	Her opinion has not been valued	It has had no impact in her life. For others she does not have a perception.
X13	She has not been able to participate in the decision-making process	She has not had any personal access to the benefits of the project.	She has not had any information on the Chinese objectives or activities	She has had no possibility to voice her opinion and affect the situation	She is very angry about the way the Chinese have treated the people and left many without anything.
X14	She has never been able to participate. They appeared without notice.	She has never had access to any benefits.	She never received any information. The Chinese came there very suddenly and the farmers did not know anything	Her opinion has not been valued. The government is so closed and people are scared to voice their opinions and complain. She believes if it was an open government the farmers could have more power and voice their opinions.	The Chinese brought a lot of suffering to her and other farmers. She also thinks it is a case where it is clear that people are scared of the government and has no power in relation to them.

Appendix 6 - Perceptions

	4:1 Perceptions of Chinese involvement in Mozambique in general	4:2 Perceptions of Chinese involvement in Boane/Xai-Xai
<i>Interviewee</i>		
B1	Thinks they are doing a good job	Went for education at the research center and learned a lot of things. Thinks it is an exchange in experience and technology. Her perception of the Chinese in Boane is good. Thinks they learned a lot of things from them and will learn even more from them in the future.
B2	Since the independence war Mozambique has depended on China for support. Now they are involved in agriculture. His perception of the Chinese involvement is positive.	He says that some have been educated at the center on how to farm new seeds and farm more efficiently. He says China is ready to teach them and transfer their knowledge. He is very happy and thankful that they are here teaching.
B3	He says the Chinese helped during the independence war and since then there has been cooperation between China and Mozambique and there is no problem with that.	He went to the center and it is a good cooperation. It is no problem with it. The Chinese involvement has been good for him and he never saw anything bad with it.
B4	She thinks it is very positive	She thinks the involvement is very positive since they give courses in agriculture. The Chinese presence is positive to her
B5	She says there are many different projects where China is involved in Mozambique and the ones within agriculture are the most important for her. She is happy with their involvement in that sector	She is satisfied with China's presence in Boane since they learn new efficient farming techniques at the center
X6	She says that the local population has nothing to say about their involvement. The government controls everything and it is not benefitting the population. Their involvement is very bad	She says the investment brought a lot of poverty to the population in Xai-Xai with the people being removed from their lands. Their involvement is very bad.
X7	She thinks the involvement in Mozambique is generally positive	She wants the Chinese to employ more people in Xai-Xai but she thinks their presence is good since they produce more rice that she can buy.
X8	She can not answer these questions because she wants to be loyal to the party (FRELIMO)	She can not answer these questions because she wants to be loyal to the party (FRELIMO)
X9	She thinks their involvement is only beneficial to the government, not to the population.	She thinks the involvement has been very negative to the population and probably beneficial to the government. She has been left with nothing after the Chinese came
X10	She thinks their involvement is negative	She thinks their involvement is negative in Xai-Xai because she had land and they took it away.
X11	She thinks the Chinese involvement is negative for the population but positive for the government	She thinks the Chinese involvement in Xai-Xai is bad for the people. They came and took many people's lands but for the government it is positive because the Chinese came with rice production to the country. But the rice is not for the people.

X12	She thinks it is positive since there is more production now in the country	It has been positive for her. She can buy more rice now.
X13	She believes it is generally positive for development in Mozambique	In Xai-Xai she believes it is generally positive. They are helping reducing poverty a little by starting production. The problem is that their food is expensive. The rice is expensive and they are taking away people's lands
X14	She has no perception of their involvement on a general level.	Their involvement has been very bad in Xai-Xai. For her it has been devastating. She has suffered a lot since they came and took away her land.

Appendix 7 – Environmental sustainability

	5:1 Environmental impact on personal sphere since after the start of the Chinese project/investments	5:2 Perceptions of future environmental impact on personal sphere	5:3 Perceptions of current or future environmental impact in Boane/Xai-Xai
<i>Interviewee</i>			
B1	She has no perception of this	She does not think the Chinese project/investment will affect the environment in her personal sphere in the future	She has no perception of this
B2	He does not think the Chinese project/investments impacted the environment in his personal sphere	He does not think the Chinese project/investment will affect the environment in his personal sphere in the future	He has no perception of this
B3	He has no perception of this	He has no perception of this	He has no perception of this
B4	She does not think the Chinese project/investments impacted the environment in her personal sphere	She does not think the Chinese project/investment will affect the environment in her personal sphere in the future	She has no perception of this
B5	She has no perception of this	She has no perception of this	She has no perception of this
X6	She does not have any way to measure this since she no longer has any land	She does not have any perception of this since she no longer has any land	She has no perception of this
X7	She does not think the Chinese project/investments impacted the environment in her personal sphere	She has no perception of this	She has no perception of this
X8	She does not think the Chinese project/investments impacted the environment in her personal sphere	She has no perception of this	She has no perception of this
X9	She does not have any way to measure this since she no longer has any land	She does not have any perception of this since she no longer has any land	She has no perception of this
X10	She does not have any way to measure this since she no longer has any land	She does not have any perception of this since she no longer has any land	She has no perception of this
X11	She does not have any way to measure this since she no longer has any land	She does not have any perception of this since she no longer has any land	She has no perception of this
X12	She has no perception of this	She has no perception of this	She has no perception of this
X13	She has no perception of this because she has no land	She has no perception of this because she has no land	She has no perception of this
X14	She has no perception of this because she has no land	She has no perception of this because she has no land	She has no perception of this

Appendix 8

Descriptive accounts

2. Economic sustainability

2:1 Inclusion in the activities of the Chinese project/investments

- Went to courses =3
- Has not been to courses but learned through colleagues =2
- Not included at all =9

2:2 Experience of personal positive economic impact from the Chinese project/investments

- Learned new efficient techniques to increase production =5
- Was able to sell products and not only farm for their families =4
- No positive impact =7
- Able to buy more rice =2

2:3 Experience of personal negative economic impact from the Chinese project/investments

- No negative impact =7
- Removed from their land and left without way to sustain themselves =6
- No personal impact but upset with others misfortune =1

2:4 Changes in ways of farming/productivity since the start of the Chinese project/investments

- New techniques on how to farm more efficiently =5
- No possibility to evaluate changes since she no longer has access to land =6
- No changes in ways of farming =3

2:5 Changes in possibilities of selling products since the start of the Chinese project/investment

- Selling more than before =4
- Is in the initial stages of selling =1
- Not selling anything and has never sold before =3
- Not selling anything because of no land =6

3. Social sustainability

3:1 Possibilities of participation in decision-making processes related to the Chinese project/investments

- No possibility to participate =13
- Participated in some debates =1

3:2 Level of access to social resources/benefits related to the Chinese project/investments

- Access to education/knowledge =3
- Limited access to material =2
- Access to education/knowledge through colleagues =2
- No access to benefits =7
- Access to buying rice =2
- Lost access to land =6

3:3 Level of access to information regarding the objectives and activities of the Chinese project/investments

- Access to information from the Chinese =4
- No access to information from anyone =10

3:4 Possibilities of personal opinion on the Chinese project/investment being respected and valued by higher authorities

- Has not been able to express their opinion and having it valued =12
- Can express opinion only when called by the Chinese =1
- No answer to the question =1

3:5 Changes in social situation in Boane/Xai-Xai or personally after the start of the Chinese project/investments

- Bigger exchange of knowledge and/or ideas =4
- Gained knowledge =4
- Possibility to teach others =1
- Poverty and/or misery to the people =5
- Not noticed any change =3
- No perceptions of this matter =2

4. Perceptions

4:1 Perceptions of Chinese involvement in Mozambique in general

- Positive perceptions =8
- Negative perceptions =2
- Only beneficial to the government, not to the people =2
- Cannot answer for political reasons =1
- Has no perception on a general level =1

4:2 Perceptions of Chinese involvement in Boane/Xai-Xai

- Positive perceptions =8
- Negative perceptions =3
- Cannot answer for political reasons =1
- Positive for the government but bad for people =2

5. Environmental sustainability

5:1 Environmental impact in personal sphere since after the start of the Chinese project/investments

- Has no perception of this matter/answering other questions =3
- Does not think the Chinese project/investment has impacted the environment in personal sphere =5
- No longer has any land, difficulty in evaluating=6

5:2 Perceptions of future environmental impact in personal sphere

- Does not think the Chinese project/investments will impact the future environment in personal sphere =3
- Has no perception of this matter =5
- No longer has any land, difficulty in evaluating =6

5:3 Perceptions of current or future environmental impact in Boane/Xai-Xai

- Has no perceptions of this matter =14