Norwegian Carbon Plantations in Tanzania: Towards Sustainable Development?

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Master Thesis 30 credits 2010

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MSc Thesis in Development Studies 2010

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The picture on the front page is of local women in the tree nursery from Green Resources Annual Report, 2007.

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Declaration

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

Signature…….

Place & Date……

“ Pretty soon, it may be expected, every time you turn an ignition key, flip a switch, take a holiday, or cook some food, you will not only be using up fossil fuels but also planting trees on someone else’s land.” (Lohmann 1999)

Acknowledgements

There are so many people that have contributed in different ways to make this thesis a success. It is difficult to mention all of them, but I will attempt to do my best.

First and foremost, I would like to thank my supervisor Professor Tor A. Benjaminsen. His suggestion materialized my thesis when I was still groping in the dark, and his guidance and feedback have been of great value during the whole process. The EKOSIASA project, which funding enabled me to stay and do my research in Tanzania, and who acted like a platform for testing out my hypotheses and for giving me feedback. My local supervisor, Dr. Jumanne M. Abdallah at Sokoine University of Agriculture (SUA) in Tanzania, for his facilitation and feedback, and for always being there for me and giving me a helping hand.

Green Recourses for their willingness to share. Their facilitation and accommodation enabled me to get out to the villages and around the plantation. Special thanks goes to Jakob Sandven, Hartvig Velund and Erlend Konttorp Haugen at GR in Sao Hill for giving me a warm welcome and for your continuous help and support, and for being my friends in a new and foreign place. Mr. Aron G. Laizeu, the plantation manger in Idete, whose warm heart and facilitation skills still amazes me. To each and everyone in all of the three plantations who made me feel welcome and at home, Mapunda, Mr. Minde, Mr. Nkama and Agnes, to mention some. In addition, the Managing Director in GR Ltd. Sangito Sumari and the Resource Managing Director in GR AS Olav Bjella, thank you for your openness and honesty.

Last, but not least, a special gratitude to all of the villagers and workers who have taken their time to answer all my questions. Local and district government, and other organizations and offices I have had contact with, whose contributions have been crucial for the success of this thesis. My translators and car drivers whose help and guidance I could not have been without. To friends, family and my partner who have stood out with me through this process and for your continuous support. Finally, I want to thank Stein Bjørn Øverland and Leela Naidu for your valuable review and feedback. For those whose name I have not mentioned you know who you are.

Thank you very much. Asanteni sana.

Abstract

This study was conducted in the Southern Highlands of Tanzania. The objective was to investigate how the emergent carbon market through the Kyoto Protocol had lead the Norwegian company Green Resources AS to acquire large tracts of land for the establishment of carbon sequestration projects. By using the approach of political ecology and a set of minimum human-rights principles applicable to large-scale land acquisitions and leases. The aim was to investigate the impacts of Green Recourses projects on land tenure and local livelihoods. This was done by identifying the historical and present use of land as to further assess the effects of these projects on local social and economic development. With amongst others the Clean Development Mechanism (CDM) as a guide, the aim was to investigate to what extent these projects had been able to live up to its dual goals of mitigating climate change and promoting sustainable development, and where inconsistencies were found, to identify possible obstacles.

The methods used were amongst others semi-structured interviews, focus group discussions, observations and literature reviews.

Most of the changes of the utilization of land in the study area were a result of long-term political and economical policies from before and after the independence. This has lead to large tracts of land being allocated away to foreign private investors. In the long run, abandoning much of the village land may have implications for future generations, but also for local and national food security. The villages visited had received several social and economic benefits from the project, but issues regarding working conditions and salaries, question its sustainability. Furthermore, the study found that global win-win discourses and narratives regarding carbon offset forestry, have dominated the development of this blue print to solve global problems in environment and development. The narratives encountered in this case study also reflect this.

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Acronyms and Abbreviations

AAU	Assigned Amounts Units
ARD	Afforestation, reforestation and deforestation
AR	Afforestation and reforestation
CDM	Clean Development Mechanism
CCBA	Climate, Community and Biodiversity Alliance
CELB	Center for Environmental Leadership in Business
CERs	Certified Emissions Reductions
CO2	Carbon dioxide
CO2e	Carbon dioxide equivalent
CSR	Corporate Social Responsibility
DC	District Council
DOE	Designated Operational Entity
EB	Executive Board
EU ETS	European Union Emissions Trading Scheme
ERUs	Emissions Reduction Unit
FSC	Forest Stewardship Council
GHG	Greenhouse gas
GR	Green Resources AS
GS	Gold Standard
IFP	Idete Forest Plantation
IPCC	Intergovernmental Panel on Climate Change
JI	Joint Implementation
LULUCF	Land Use, Land Use Change, and Forest
MFP	Mapanda Forest Plantation
NGO	Non-governmental organization
PDD	Project Design Document
TIC	Tanzanian Investment Center
VERs	Verified Emission Reductions
VC	Village Council
VCS	Voluntary Carbon Standard
UFP	Uchindile Forest Plantation
UNCED	United Nations Conference on Environment and Development
UNFCCC	United Nations Framework Convention on Climate Change
WC	Ward Council
WWF	World Wide Fund for Nature

1 Introduction

Since the Intergovernmental Panel on Climate Change (IPCC) published its first Assessment Report in 1990, there has been increasing attention paid to climate change, particularly to its anthropogenic causes. Research has shown that the climate is changing mainly due to an increase in greenhouse gases (GHGs), which are predominantly caused by human activities (Stern 2007). The activities recognized as those increasing GHGs the most, are the burning of fossil fuels and deforestation, the former having escalated since the Industrial Revolution, and the latter accounting for about 20 percent of global carbon dioxide (CO_2) emissions (Banskota et al. 2007; Bäckstrand & Lövbrand 2006).

In an attempt to address these issues there have been several global environmental agreements, amongst them the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol. The Kyoto Protocol legally commits nations who have ratified it to curb their greenhouse gas (GHG) emissions to 5 percent of 1990 levels between 2008 and 2012. To be able to do this, the protocol has developed so-called flexible mechanisms to mitigate GHG emissions in a cost efficient way. Developing countries, or so-called Non-Annex I Parties, are not committed to this first period. However, one of the mechanisms, the Clean Development Mechanism (CDM), allows developed countries with a commitment to the protocol to implement energy or forest projects in the developing countries that can mitigate GHGs (UNFCCC 1998). In this way developing countries can voluntarily participate and not be left outside the convention, and at the same time receive payments from developed countries for their efforts.

However, underlying debates about the CDM are a set of profound disagreements about the future low emissions society. These projects commodify carbon through models and measurements enabling Certified Emission Reductions (CERs) to be traded in the carbon market. As such, these schemes are treating the environment and economy as interchangeable goods by valuing ecosystem services. The discussion is also over the rationale and impacts of the CDM, which are connected to the political perspectives of the

different participants including NGOs, scientists, governments, businesses, and local beneficiaries. By many it is considered to be a "win-win" solution to global problems benefiting all stakeholders, while others have criticized it calling CDM projects "carbon colonialism" (Benjaminsen & Bryceson 2009) and "green cosmetics" (Bäckstrand & Lövbrand 2006).

The CDM pursues a blueprint to development with its dual goals of mitigating climate change and promoting sustainable development in the host country. In line with Tanzania's National Strategy for Growth and Reduction of Poverty (NSGRP), the link between environment and poverty is recognized to be crucial. In recent years the Tanzanian government has implemented several policies to properly manage their environmental resources, particularly forests, in order to secure rural livelihoods. Thus, CDM projects or carbon sequestration projects under other regimes are welcomed by the Tanzanian government as they are seen to contribute to the growth and the reduction of income poverty among rural communities in the future (URT 2005). They are also considered by many developing countries as an attractive opportunity to access more capital by allowing such projects in their countries.

Most CDM projects need large tracts of land to establish their businesses, especially forestry projects, and for example wind farms. This has added to the already increasing demands for land in Tanzania by companies planning to use it for bio-fuel plantations (Vidal 2010; Zaraska 2010). Thus, the prevailing impression that Tanzania is a land abundant nation may need to be altered due to this new scramble for land. Maganga (2003:52) has also noticed in his research that this has led more and more private individuals in Tanzania to obtain formal rights, "because of the perceived insecurity that is associated with informal arrangements or customary rights." This, together with an increased competition for land by foreign private investors, has lead to increased conflicts where local people struggle to keep their customary rights. At the same time the government is trying to both please its inhabitants and the demands from a liberalized economy. This has lead to insecurities for some and opportunities for others.

The Norwegian company Green Resources AS is an example of a foreign private investor that has seen an opportunity. The company has acquired much land, especially in Tanzania, for the establishment of carbon offset forestry projects. The main purpose of their tree plantations is commercial wood production in compliance with the criteria of the Forest Stewardship Council (FSC). However, the establishment of plantations as a renewable source of wood supply is also expected to result in twofold benefits: (i) the generation of carbon credits and greenhouse gas (GHG) removals through "sinks", and (ii), the reduction of threats to natural forests (Point Carbon & Perspectives 2008). Therefore, the project offers the potential to be developed as a CDM project and generate temporary or long-term Certified Emission Reductions (CERs). Hence, such projects are seen as win-win approaches to the mitigation of climate change and promoting growth and sustainability for the benefit of all stakeholders.

However, empirical evidence has shown that such projects can have implications on property rights and tenure systems. This can further place pressure on already diminishing supplies of land, both for productive use and human settlement (Bäckstrand & Lövbrand 2006; Cotula et.al. 2009; Quan & Dyer 2008; Sulle & Nelson 2009). In addition, there is not yet enough work on the CDM, which is needed in order to understand under what conditions the CDM contributes to both sustainable development and rapid emissions reductions. Thus, the dual goals of the CDM, mitigating climate change and promoting sustainable development, have been under much scrutiny in recent years. Therefore, by studying the case of Green Resources forestry plantations in Tanzania I hope to shed some light on this current debate about the CDM and the future low emission society, as well as the debate over increasing land grabbing in developing countries and how this affects rural livelihoods.

1.1 Aim of the Study

The overall aim of this study is to investigate the implications of Green Resources projects on land tenure and local livelihoods. More specifically the study aims at identifying the historical and present use of land to further assess the effects of these projects on local social and economic development. I aim to investigate to what extent these projects have been able to live up to the dual goals of the CDM of mitigating climate change and promoting sustainable development, and where inconsistencies are found, to identify possible obstacles preventing it. Lastly, I aim to identify the winners and losers in this project, if there are any.

1.2 Objectives and Research Questions

This thesis is part of a larger research project called 'EKOSIASA'. The overall objective of EKOSISA is to contribute to improved governance of wildlife and forest governance in Tanzania through applied research and capacity building in political ecology. The objectives of this particular study are:

1) To identify and analyze the historical and present use of the land.

   - What are the local people's narratives about the historical and present use of the land?
   - What are the local people's narratives about the historical and present land tenure system in the area?
   - What does official law say about the land tenure situation in the area?

2) To identify and analyze the impact(s) of Green Resources projects on local people's access to resources and social and economic development.

   - What are the local people's narratives about the project's impact(s) concerning their access to resources?
   - What are the local people's narratives about the project's impact(s) on local social and economic development?
   - What is Green Resources narrative about their project's impact(s) on local people's access to resources and on local social and economic development?

1.3 Structure of the Thesis

Chapter 2 presents some key concepts and definitions, which are at the core of this study, and which are needed in order to understand this thesis. Chapter 3 and 4 outlines the ontological- and epistemological approach, while chapter 5 focuses on the carbon economy, what carbon offsets are and presents an introduction to existing carbon markets. Chapter 6 entails important background information of the study area, land tenure and Green Resources and their forest plantations in Tanzania, while chapter 7 goes through the methodology of this study as well as the methods and design for collecting and analyzing data. Subsequently, chapter 8 is an attempt to discuss the findings from the fieldwork of this thesis before finally, chapter 9, proposes a conclusion of the study.

2 Key Concepts and Definitions

This chapter is an outline to two of the key concepts and definitions that are at the core of this study and that will be used extensively through the thesis.

2.1 Sustainable Development

Sustainable development is a concept that gained ground with the Brundtland report *Our Common Future* published in 1987. The report put the term on the global agenda, and it launched probably the most commonly used definition of sustainable development (Langhelle 1998).

"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs." (Brundtland 1987)

However, the roots of this phrase go further back in time. The concept of "sustainability" first joined the development lexicon following the development planning after the Second World War (Adams 2009), and following the United Nations Conference on Human Environment in Stockholm in 1972 the concept was further adopted and marked in many ways the turning point in international environmental politics (Hajer 1995). The idea of environment and development as interchangeable phrases was explored by a range of authors in the late 1970s-early 80s. Under the label "ecodevelopment", concerns were raised regarding environmental issues such as global warming and deforestation, which laid much of the foundation for *Our Common Future* in 1987 (Adams 2009). But it was not before 1992, after the Rio Summit (UNCED), which led to the establishment of the UNFCCC, that the phrase got a really good foothold. In this way sustainability became a keystone in the development discourse and would dominate the development paradigm of the 1990s up until today (Adams 2009).

Nevertheless, it is also a concept that has been criticised. The two terms "sustainable" and "development" have several different meanings and no commonly accepted definition. Merged into one it is a concept that will be open for different perceptions and interpretations (Langhelle 1998). Therefore, some "radical critics of the Brundtland report

claim that the whole idea of sustainable development is a rhetorical ploy which conceals a strategy for sustaining consumption rather than addressing the causes of the ecological crisis" (Hajer 1995:12). This shows that sustainable development is a concept with many contradictions in the environmental discourse, as people have different perceptions of what international environmental politics is about. Thus, it is important to notice that the hegemonic idea of sustainable development is not an outcome of a united agreement between different actors, but rather a struggle, which produces several story lines and narratives within the environmental discourse (Hajer 1995).

2.2 Global Climate Change

In an era of a strong environmental focus, and alongside "sustainable development", another concept has emerged, namely "global climate change". It is a concept known to most people today and it can be seen and heard almost every day in headlines all over the world. However, the headlines are not preoccupied with the changing weather conditions identified over time, which basically climate change is. The focus of these headlines is the debate over the origins and causes of these changes. Since the IPCC published their first Assessment Report in 1990 there has been increasing attention paid to global climate change, and particularly to its anthropogenic causes. Research has shown that the climate is changing mainly due to an increase in greenhouse gases (GHGs), which are predominantly caused by human activities (Stern 2007).

First of all, it is important to note the term "global", the reason for this is that the phrase has deep roots in the past up until today's international environmental politics. In *The Politics of Environmental* Discourse, Hajer (1995) points out that already "in the early 1970s the image of the "global" became the icon of a comprehensive political effort to address global environmental problems.."(p.8). And as shown with the phrase "sustainable development", also the term "global" has a long history in the environmental discourse. The term also shows that with the last decades of increased interaction between countries, politically and economically, it has lead to a growing understanding that we are all mutually responsible for our planet as we live under the same "roof" (Forsyth 2003). Especially, as Forsyth (2003:169) notes, the word "global" is most commonly used on environmental problems that threaten

the “stability or status of the planet as a single unit” or to “problems that result from changes occurring globally.”

Secondly, climate is always changing, and variations in day-to-day weather occur all the time. However, what has caused this new-found interest is that the reasons of climate change are said to be anthropogenic. This means that human activities such as the burning of fossil fuels and deforestation has led to more greenhouse gases (GHG) being released in the atmosphere. These gases are trapped in the atmosphere, which acts like the glass in a greenhouse, and captures the sun rays and make the planet we live on warm and habitable, thus a process known as the greenhouse effect (Houghton 2004). However, as time has evolved and we have become more industrialised, science claims that there is an increase in $C0_2$ emission. This has led to an increased uptake in the atmosphere ultimately increasing temperatures on earth. With increased temperatures, the ice starts to melt and the sea level rises. In addition, a warmer climate heats up the oceans, turning the biggest reservoir of CO_2 into an emitter rather than a sink[1] (IPCC 1997).

Last, it is debated whether climate is in fact changing due to man-made causes or if we are witnessing natural fluctuations. In the same way the Little Ice Age is used to illustrate the decline in temperature during a cold period between 1300-1850 CE, it is also used to show that temperatures have always been changing and that it is just a matter of time frame (Humlum 2010). If we go 1000 years back in time, we find a period called by scientists the Medieval Warm Period, where temperatures were higher than now. Even further back (8,000 years) we find what the scientist call the Holocene Maximum, which lasted for three millennia with even higher temperatures (Humlum 2010). This has led some global warming critics to believe that human activity is not the decisive factor for climate change pointing to these so-called natural fluctuations.

Despite this disagreement, I do not intend to give any further account or clarification on this debate. I merely wish to reflect the fact that there is also some scientific disagreement on climate change, as with any other environmental issues. In addition, I wish to show how the

[1] For more information about the carbon cycle and the ocean see also: http://oceanworld.tamu.edu/resources/oceanography-book/carboncycle.htm

two terms “climate change” and “sustainable development” are connected, and how sustainable development has enabled a global discourse coalition in environmental politics. Hajer (1995) also points out that sustainable development is a storyline (or narrative) that has allowed actors with differing social and cognitive commitments to share a way of talking about environmental issues. In this way we can see that not only are these two terms or concepts connected, but they have also evolved into interchangeable phrases where the one does not exist without the other. For more discussion and information on these matters see e.g. Hajer (1995), Houghton (2004), Humlum (2010), Penna (2010) and Weart (2008).

3 Ontological Approach

Ontology can be defined as "the theory of underlying structures in biophysical or social entities"(Forsyth 2003:15). It aims at identifying and understanding the nature of being, or simply, the "things that constitute the world's structure" (Forsyth 2003:15). The ontological approach of this study is framed within the general approach of political ecology (Blaikie & Brookfield 1987; Bryant & Bailey 1997; Peet & Watts 1996; Robbins 2004) and a human-right based approach. Hence, this chapter aims at outlining the two approaches, which form the conceptual approach of this study, and thus the foundation for the analysis.

3.1 Political Ecology

Political ecology is a rather young approach that has gained ground among different fields in academia including geography, anthropology, development studies, sociology and forestry during the last decades. It has its origins in the 1970s when the environment became a part of the political agenda and commentators started to highlight politics and political economy in the current ecological crises (Hajer 1995; Peet & Watts 2004). The term was probably first used by anthropologist Eric Wolf in 1972 in an article entitled *Ownership and Political Ecology* where he discussed how local rules of ownership and inheritance "mediate between the pressures emanating from the larger society and the exigencies of the local ecosystem" (Wolf 1972:202). However, it is Blaikie's *The Political Economy of Soil Erosion in Developing Countries* published in 1985, which is seen by scholars as the pioneering work of political ecology. In spite of that, the foundation of the field, together with maybe one of the most used definition of political ecology, came later with Blaikie and Brookfield's *Land Degradation and Society* in 1987 where they wrote that:

"The phrase 'political ecology' combines the concerns of ecology and a broadly defined political economy. Together this encompasses the constantly shifting dialectic between society and land-based resources, and also within classes and groups within society itself" (Blaikie & Brookfield 1987:17)

Political ecology draws its insight from a range of disciplines and theoretical concepts such as; common property theory, green materialism, peasant studies, feminist development studies, discourse theory, critical environmental history, and post-colonial theory to mention some (Robbins 2004). However, due to this integration of various disciplines and the eclectic characteristic of political ecology, it has been defined in a number of ways and repeatedly reinvented. Blaikie and Brookfield's definition is just one of many, and changes in definitions are often found in accordance with the author's own goals and interests, but always within the approach of political ecology (Robbins 2004). In this way we can see how political ecology has developed and has its roots in different critical perspectives in combination with insights from field work (Rocheleau 2008).

In recent years political ecologists have started to focus more and more on the discursive dimensions of people-environment interactions, with even more emphasis on "power relations" and how people and stakeholders perceive environment and development problems differently (Adger et al. 2001; Forsyth 2003; Peet & Watts 1996). The field of political ecology is explicit in the ways it addresses the relations between the social and the natural, arguing that the state of nature has to be seen not only as "the outcome of political processes", but that "the way nature itself is understood is also political" (Adams 2009:197). In their book *Liberation Ecologies*, Peet and Watts (2004), particularly emphasize the importance of seeing the political character of nature, and how this is central to the analysis of environment and development. They argue that political ecology is concerned with politics of social action, or what they called "ecological democracy", and how knowledge is constructed through the multiple understandings of environmental problems. As such, many political ecologists often apply a discourse and/or narrative analysis in their research to better understand the people-environment relationship.

Furthermore, by examining historical and contemporary environmental discourses, political ecologists argue that the environment is constructed, hence, suggesting that political ecology is a constructivist approach. It is important to note that political ecology "does not seek a dethroning of all that is real," but rather focuses on "those things that are taken for granted" as to unmask political motivations and activities surrounding "constructions that

contribute to constructing the objects of the world" (Robbins 2004:110). In this way, we can see that in addition to the focus on discourses and constructivism, political ecology also takes the approach of critical realism or environmental realism (Forsyth 2003). This indicates that political ecology is an alternative to apolitical ecologies, which is narrowly local and objective, and that draws its attention to typical neo-Malthusian concepts such as population growth and the tragedy of the commons in its explanation of environmental problems. Thus, the name apolitical, because it draws attention away from the political process concerning environment and development. As such, political ecology is a useful and important approach that can be applied in research about environment and development for analysing local practices, knowledge and perceptions across scales and multiple spaces (Adams 2009).

3.2 Human-Rights Based Approach

The human-rights based approach to development is like political ecology a rather young approach and emerged from the mid-1990s. Typical development theory and practice was found inadequate, which primarily focused on the social and economic developments as outcomes of development efforts, and neglected the quality of the process. The human-rights based approach, on the other hand, focused more on the quality of the development efforts and accountability. Therefore, the quality of the process, by which humans rights are realised, is as important as the outcomes. Thus, the human-rights based approach went beyond earlier development theories and practise to human development by addressing the rights of the humans whose development was at stake (Johnsson 2003).

However, human-rights are an inflationary concept that needs further review. In all societies there are moral standards about right and wrong. Together with ethical standards, that are systematized moral stands, a set of standards regarding human rights have been established by people over time. That is to say, human rights are social constructs made by people for people (Johnsson 2003). Nevertheless, using the approach of political ecology, this thesis assumes a constructivist approach as well as the approach of critical realism. Recognizing that human-rights are social constructs, but also that they hold power and are "real" in order to understand the motivations behind them.

The history of human-rights is long, and can be traced back to the beginnings of man. In 1689, John Locke (1632-1704), wrote in the *Two Treatises of Government*, the *Second Treatises*, that "all humans, beings created by God, possess equal natural rights (that is, in the state of nature they possess life, liberty, and property) that society must recognize if it is to be legitimate" (Locke 1689). Locke meant that through humans' mere existence they were inherent to these "natural rights", however, that they had to be recognised by society if they were to have any value. Thus, "human-rights are rights held by individuals simply because they are part of the human species" (Ishay 2008:3). They are universal and free from any racism, equally shared amongst all humans no matter background.

There have been several attempts to safeguard human-rights through laws and declarations. Some have achieved a number of key developments, such as; abolishment of slavery, recognition of unionism, and the right to vote (Ishay 2008). However, the modern concept of human-rights as we know it today was first laid in 1948 after World War II with the *Universal Declaration of Human Rights*. It came as a response to the atrocities during the war as to secure that something similar would never happen again. The human-rights came to be "a common standard of achievement for all peoples and nations" (UN 1948). A declaration is normally weaker than a convention, but the *Universal Declaration of Human Rights* (UDHR) is so widely used and applied all over the world, that it holds great power. In 1997, the Secretary General of the UN, Mr. Kofi Annan, called to mainstream human-rights into all work of the UN, and since an increasing number of development agencies have been applying a human-rights based approach in their work (Johnsson 2003).

Notwithstanding, critics of human rights have pointed out that there are several legal restraints, as well as factors and difficulties affecting compliance[2] when it comes to the Declaration. The UDHR is not a binding resolution, but are supposed to be implemented and complement countries own political, social and legal framework. Thus, many have argued that it is difficult for people to claim their rights, and that it also may be conflicting with the moral standards, cultural practises and traditions in some countries (Kennedy 2001). In spite of that, using a human-right based approach can prove as an important instrument for

[2] Referring to ICESCR article no. 2 and 17: http://www2.ohchr.org/english/law/cescr.htm

identifying desired outcomes, the process and why an action should be taken in a particular case. The reason for this is that the human-rights based approach to development is explicit in its link to human rights and accountability, and it entails components such as empowerment and participation, and focuses its attention to vulnerable groups (Johnsson 2003).

Allocating land to foreign private investors for as long as 99 years involves some ethical considerations, which political ecology fails to address. Human-rights are moral stands that have been systematically gathered into ethical standards through such as the Universal Declaration of Human Rights. However, when such investments are in general ethically and morally right can be difficult to answer. Looking at ethics in general, Jeremy Bentham (1970), the founder of utilitarianism, would say that an action is good if it tends to increase the good in society more than decreasing it. But who decides what the greater good is, and for whose benefit? Identifying those behind larger decisions such as this, we normally find individuals and institutions' that hold great power. Thus, those deciding are not the local communities themselves, but the "elite". Therefore, at present time, human-rights are one of the few ethical standards that can help to ensure that the voices of the powerless local communities are heard, and that their rights are ensured.

Thus, for the purpose of the analysis of this study, I intend to use a set of minimum principles established by Olivier De Schutter (2009), which have been developed to address human-rights challenges in large-scale land acquisitions and leases (see appendix 8). De Schutter is the Special Rapporteur on right to food for the UN Human Rights Council, and as an addendum to his recent report, he has proposed a set of core principles and measures for host States and investors during negotiations of large-scale land acquisitions and leases in developing countries. The analysis is based on the recent trend of land grabbing[3] in developing countries and the potential impact on the human right to food. The aims of the principles are amongst others to ensure transparent negotiations and adequate benefit-sharing, as well as ensuring the informed participation of local communities (De Schutter

[3] De Schutter (2009:5) defines land-grabbing as large-scale land acquisition or long-term leases by foreign private investors in developing countries as all land above 1000 ha.

2009). The principles are relevant to large-scale investments in farmland by foreign investors, private or public, and are not necessarily fully applicable to speculation in land and commercial pressure in general. However, such principles are forthcoming, and will only be a modification of the current principles (De Schutter 2009). Therefore, the current principles, some more relevant than others, can act as a valuable framework for analysing my findings regarding Green Resources and their involvement in the local communities from a more ethical point of view. In this way, I can better identify the desired outcomes of their projects and whether this is a sustainable development for the local communities and Tanzania.

4 Epistemological Approach

This chapter will outline the epistemological approach of the thesis. Epistemology can be defined as "the theory of knowledge"(Forsyth 2003:15), and refers to the conditions of knowledge or explanations that allows for a better understanding of the ontology. The following is a brief introduction to discourses and narratives, which forms the epistemological approach of this thesis, and hence the foundation for analysis.

4.1 Discourses

Political ecology focuses on the discursive dimensions of environment and development issues, and in this section I will attempt to define the term "discourse" more properly.

Discourses can "broadly be defined as truth regimes and are related to specific social phenomena or practices"(Adger et al. 2001:3). Simply a discourse is "a realm of understanding that may be shared by a small or a large group of people on the local, national, international, or global level" (Svarstad 2004:243). These understandings are produced, reproduced and transformed by the actors involved in the discourse through oral or written statements. In line with the ideas of Michael Foucault, who has made major contributions to discourse theory, discourses have a special meaning in the way that they hold power in human beings as he for instance sought to show in his book *Discipline and Punish* (1977). However, Foucault has been criticised for his view on human beings as products of discourses, so-called actor-less discourses, rather than seeing humans as actors producing the discourses. Therefore, and in line with Svarstad (2004:243), I find it important to also "get a picture of the actors involved in the constructions, reconstructions and practices" of discourses.

As such, one can see that discourses have different content as to the various circumstances. Thus, regarding environmental issues, discourse analysis has proved as an indispensable tool for disseminating the history of the environmental crisis and its social construction. However, it is important to note that focusing on environmental discourses as social constructs does not imply that environmental knowledge is unreal or imagined. Instead, and

in line with critical realism, it indicates an interest in how statements have been made, and with which political impacts. One example of this is *The Politics of Environmental Discourse* where Hajer (1995) explores the "story-line" (or narrative) of acid rain, and how this narrative amongst others have empowered the discourse of pollution. For that reason, and in line with Hajer (1995) and Svarstad (2004), I find it important to both examine the statements of these discourses and the context they are made in. Thus, analysing a discourse "implies the examination of statements to identify and depict discourses" (Svarstad 2004:243). For the purpose of this study, I intend to do a literature review of some of the existing literature on carbon offset forestry to identify some of the discourses surrounding these projects, as well as a narrative analysis of my own empirical findings to compare with these discourses. In the next section I will look at, and define, narratives more properly.

4.2 Narratives

As shown above, narratives are strongly connected to discourses, and as with discourses, narratives are also an important term that is found within the approach of political ecology. Within political ecology, narrative analysis is used as an important tool to deconstruct the "truths" about issues regarding environment and development, such as Hajer (1995) did with the narratives about acid rain. Therefore, I find it appropriate to define the term and further explain it in this section.

A "narrative" can simply be defined as a story, a "truth" that has been adopted and holds power in society due to social processes, e.g. climate change. Roe (1991) also points out that these stories follow a chronological order having a beginning, middle and an end, or when transferred to an argument, premises and conclusions. He further argues that some stories are more powerful than others, especially emphasizing development narratives such as Hardin's *The Tragedy of the Commons* (Hardin 1968). These narratives hold and gain power especially amongst development practitioners as self-referencing stories developed in their search of convincing each other that their solutions are the most appropriate. Roe does not argue that these narratives are untrue, but rather suggests creating better and more convincing stories, or so called counter-narratives (Roe 1991).

Another aspect of narratives relevant here is how narratives involve a “cast” of actors. This refers to the people who take part in the production and reproduction of events within the discourse as mentioned above, which typically construct actors as archetypes such as villains, victims and heroes (Adger et al. 2001). Furthermore, the connection between discourses and narratives can often be confusing. However, the purpose of narratives, which is often a political one, is to communicate or support the discourse. Adger et al. (2001), use an approach to discourse analysis in political ecology, which is adopted in this paper. They write that “a discourse contains a corpus of expressions in which we can find homogeneity in messages as well as in expressive means.” They further imply that these expressive means “refer to the ways the message of a discourse is communicated”(Adger et al. 2001:4), which can be further understood as the narratives or story-lines. Therefore, one can say that a discourse may consist of a number of narratives, which I also will come back to later in section 5.5.

5 The Carbon Economy

A new market of trading in carbon has emerged and with it a jargon that often can be difficult to understand. The following chapter is an attempt to provide some of the background of the emergence of the carbon economy and what a carbon offset is. Furthermore, is an introduction to some of the existing carbon markets and how they work, especially looking at the CDM, but also other carbon offset standards. Next, I will introduce and discuss some of the existing literature on the CDM and carbon sequestration projects to show some of the different discourses and narratives surrounding these projects.

5.1 The Emergence of the Carbon Economy and -Offsetting

In an attempt to respond to global climate change, many mechanisms and instruments have been proposed, and maybe one of the most favored in the early 1990s was direct regulation and taxation. However, this was met with strong oppositions from many who believed that it would hurt the industries and who therefore pushed in favor for a trade in carbon (Spash 2009). Trading something as unmanageable as carbon may sound a bit unusual for many, but after "some two hundred global environmental agreements and protocols, including the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol", several mechanisms have been developed to do so (Boyd 2009:2380). One way of mitigating climate change is through carbon offsetting, which compensates for our emissions by making reductions elsewhere. Carbon offsets generate "carbon credits" that can be traded on the carbon market, a credit is measured in metric tons of CO_2-equivalent (CO_2e), and one credit represents the reduction of one metric ton of CO_2 or equivalent of other GHGs[4] (DSF 2008).

All of this can seem somewhat confusing, but the concept is quite simple, "a carbon offset is a credit for a reduction in greenhouse gas emissions generated by one project, such as a wind farm, that can be used to balance the emissions from another source, such as a plane

[4] Note that the emission reductions cover all the six main GHGs, namely carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF6), but that emissions unit or credits are measured in CO_2e.

trip"(DSF 2008). It is difficult to actually pinpoint the starting point of the carbon offset idea, but some have pointed to physicist Freeman Dyson as one of its early theorist when he in 1977 speculated in how trees could control carbon dioxide in the atmosphere (Dyson 1977; Lohmann 2006). But it was not before 1989 when the American company Applied Energy Services Inc. (AES) started to look for cost-effective ways of reducing their CO_2 emissions that the first offset forestry project began (Lohmann 2006). However, it is important to notice that there are many activities that can generate carbon offsets, such as wind farms in the example above, and that carbon offset forestry is one of them. The latter is often referred to as carbon sequestration as forests absorb carbon dioxide from the atmosphere (DSF 2008). In addition, offset projects can be classified in two general categories:

- **CDM/JI** – "projects that are/will be registered with CDM Executive Board and relevant authority for JI projects and will be able to generate CERs and ERUs under the Kyoto Protocol."

- **Non CDM/JI** – "projects that are not seeking CDM/JI registration, or fail the certification, and therefore will not be able to be used for meeting Kyoto or EU targets. The credits generated by these projects are called Verified Emission Reductions (VERs)" (Taiyab 2006:8).

The first transaction of carbon credits happened on a voluntary basis in the early 1990s, as this was before any legislation on reducing CO_2 emissions were passed, which required countries and companies to do so. However, after the UNFCCC was signed at the United Nations Conference on Environment and Development (UNCED) in Rio 1992, the commitments and proposed mechanisms increased the level of investments in this sector. But it was not before 1997, when the Kyoto Protocol was ratified, that investments really boomed. The Protocol committed the developed countries and economies in transition (collectively called Annex 1 countries) that had ratified it to reduce their GHG emissions with an average of 5 percent below 1990 levels between 2008 and 2012. With it followed three market-based mechanisms that were going to help them achieve their emissions reductions, thereby creating what is known as the carbon market (Costa 1999).

The first mechanism is Emissions Trading, defined in article 17 of the Kyoto Protocol, which allows countries with committed emissions target under the Protocol that have emission units to spare or that have not been "used" to sell them to countries that have exceeded their limits. These units are somewhat different from carbon offsets and are referred to as Assigned Amount Units (AAUs) or allowances since the targets are expressed as levels of allowed emissions. The second is Joint Implementation (JI), defined in article 6 of the Protocol. This is a project based mechanism that allows countries that are committed under the Protocol (referred to as Annex B Party) to earn or buy credits from projects in another Annex B Party (UNFCCC 1998). The last is the Clean Development Mechanism (CDM), which is also a project based mechanism as the JI and the most relevant for this study, but which I will present later in this chapter. First, I would like to give an introduction to some of the existing carbon markets and their differences.

5.2 Existing Carbon Markets

To put it simply, in general the carbon market is like the stock market, but instead of trading stocks you trade in carbon credits. In the same way there are stock exchanges for stocks there are also carbon exchanges for carbon. Since the signing of the Kyoto Protocol in 1997, several carbon markets have emerged. These markets can be categorised into two regimes, one regulatory and one voluntary. The following is an attempt to further explain the differences between these two and what each of them entail.

5.2.1 Regulatory Regimes and the Compliance Market

The compliance market is driven by governments and firms who are subject to carbon constrains due to climate policies that are regulated by mandatory regional, national and international emission reductions regimes. The compliance market consists of several different regulatory regimes. Examples of such regimes are the:

1) Kyoto Protocol (2008-2012), which is an emission reductions scheme set up by the UNFCCC, and which includes allowance trading with allowances set by the Protocol called Assigned Amount Units (AAU), and project based emissions through the Clean Development Mechanism (CDM) and Joint Implementation (JI).

2) European Union Emissions Trading Scheme (EU ETS), which is an EU scheme to help EU nations meet their Kyoto targets, and which includes allowance trading with allowances set by the EU that are called European Union Allowances (EUA), and in addition they allow carbon credits from CDM and JI.

3) New South Wales GHG Abetment Scheme (NSW GGAS) (2003-2012), is one of the first emissions reductions schemes in the world. It is an Australian scheme regulated by the state of New South Wales and which creates emission benchmarks for electricity retailers.

4) Regional Greenhouse Gas Initiative (RGGI) (2009-2018), the first mandatory scheme to reduce emissions in the United States. It is a cooperative effort by ten Northeast and Mid-Atlantic States to limit greenhouse gas emissions in the power sector.

In the compliance market the emission credits[5] and allowances (AAU/EUAs) are bought and sold for the purpose of meeting these emissions targets set by the regulatory regimes. There are several exchanges serving the compliance market, but the European Climate Exchange (ECX) is one of the leading marketplaces especially for trading carbon in the EU ETS, and as mentioned earlier the market participants are mostly governments that need to meet their domestic targets and larger energy intensive companies (Taiyab 2006).

5.2.2 Voluntary Regimes and - Markets

The voluntary regimes, in contrast to the regulatory regimes, emerged as an early response to talks over reducing emissions and are for those who want to reduce their emissions without meeting any regulatory targets. Examples of voluntary regimes are the:

1) Chicago Climate Exchange (CCX), which is a voluntary trading scheme in the US.

2) Japan's Voluntary Emissions Trading Scheme (JVETS), which is a voluntary trading scheme in Japan.

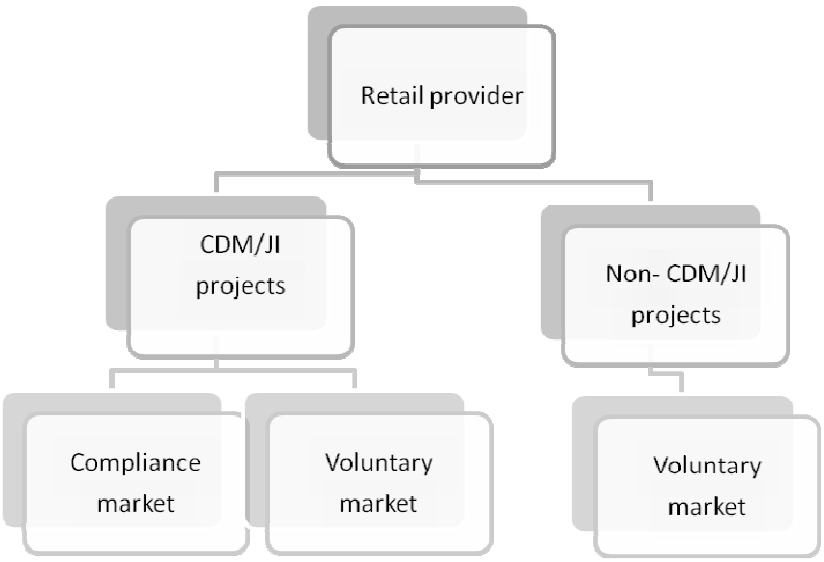
3) Retail market, which consists of small project-based emissions reductions not used for compliance or trading.

The participants in the voluntary market are generally companies, NGOs, and individuals who want to maintain a "sustainable" image and lifestyle due to personal commitments or for PR purposes (Lovell et al. 2009). In opposition to the compliance market, emission credits

[5] Emissions credits, carbon offsets, and carbon credits are used interchangeably in the terminology.

from carbon offset projects come both from CDM/JI and non-CDM/JI projects, and the emissions credits generated from the latter are called verified emission reductions (VERs). This means that "a buyer can *voluntarily* purchase credits from a CDM (CERs) or a non-CDM project (VERs). The action is defined as *voluntary* as long as the credits will not be used to meet a regulatory target"(Taiyab 2006:8). In addition to this, allowances are traded. The emission allowances you find on these exchanges are "created and allocated by regulators under a cap-and-trade regime"(Taiyab 2006:5). The allowances under a cap-and-trade regime are like the allowances given under the regulatory regime, it is just that they are committed voluntarily. The Chicago Climate Exchange (CCX) for example allows companies to set self-imposed, legally binding emissions reductions, which can be seen as a type of regulated voluntary regime. In addition to these there is a retail market, and the following figure can be used for a better understanding:

Figure 1: The Retail Market



(Source: Taiyab 2006:8)

The retail market is a market that consists of different retailers from both new and old organisations interested in capitalising from the carbon market. Most is for-profit, but there are also some non-profit organisations simply interested in mitigating climate change. As seen from the figure above the carbon offset organisations on the voluntary market can sell carbon credits from any type of projects and tend to target a wide market segment. They sell

carbon offsets from different projects in their project portfolios to individuals, companies, cities and events to give them a carbon neutral profile (Taiyab 2006). This has become a highly attractive market. Showing a carbon neutral profile gives high value in the public eye, especially for commercial companies to attract customers and for individuals who want to leave a carbon neutral footprint. The reason for this, Lovell et al. (2009) suggest, is the growing sustainable and ethical consumption of such as fair trade goods and organic foods, but also recent years of focus on the environmental crisis. In the following I will give an introduction to the CDM and the standards under which carbon credits are certified.

5.3 The Clean Development Mechanism (CDM)

The background for this mechanism was the dissatisfaction about the concept of Joint Implementation (JI) from the developing countries under the First Conference of Parties (COP1) in Berlin in 1995. The project-based mechanism JI would exclude the developing countries from the first commitment period, making it more difficult for them when they also have to commit to emissions reductions. Therefore, "a compromise was found and a pilot phase during which projects were called "Activities Implemented Jointly" (AIJ) was conducted to establish protocols and experience, but without allowing carbon crediting between developed and developing countries" (Costa 1999). However, in the final text of the Kyoto protocol, the developing countries were considered and the AIJ were turned into what we now know as the Clean Development Mechanism (CDM).

As mentioned earlier the CDM is one of the three flexible and market based mechanisms under the Kyoto Protocol. It is defined in article 12 of the Protocol and is a project based mechanism such as the JI. It "allows developed countries to offset emissions through energy or forest (afforestation and reforestation[6]) projects that mitigate CO_2 from the atmosphere and allows developing countries to voluntarily participate in efforts to reduce GHGs in return for payments from developed countries" (Boyd 2009:2380). Emission reductions generated from such projects are called certified emission reduction (CER) credits, unlike the reductions

[6]Often referred to as Afforestation, Reforestation and Deforestation (ARD) activities, but afforestation and reforestation are the only eligible forestry activities under the Kyoto Protocol. Both refer to establishment of trees on non-treed land, however, "reforestation refers to the establishment of forest on land that had recent tree cover, whereas afforestation refers to land that has been without forest for a much longer time period" (Bolin et al. 2000:65-66)

from JI projects, which are called emission reduction units (ERU), each an equivalent of one ton CO_2 which can be traded on the carbon market. The main purposes of the CDM as defined in the Protocol are to:

- "assist Parties not included in Annex I in achieving sustainable development and in contributing to the ultimate objective of the Convention", and to
- "assist Parties included in Annex I in achieving compliance with their quantified emission limitation and reduction commitments under Article 3" (UNFCCC 1998:11).

However, forestry activities under the CDM, which is the main concern for this study, are limited to afforestation and reforestation (AR) projects. These projects do not generate the standard type of CERs as other CDM projects. The reason for this is "that carbon contained in the biomass in trees is at continuous risk of being emitted into the atmosphere (due to fires etc.), consequently the CERs are only valid for a certain time span"(Point Carbon & Perspectives 2008:8). Under the regulations of the CDM, credits generated from AR projects are defined as short-term credits (tCERs-temporary certified emission reductions) and long-term credits (lCERs)-long-term certified emission reductions), which have different durations of validity. They are both temporary and have to be renewed upon expiry, and the project participants can choose a crediting period of either 20 years that can be renewed twice, or 30 years with no renewal[7] (Point Carbon & Perspectives 2008).

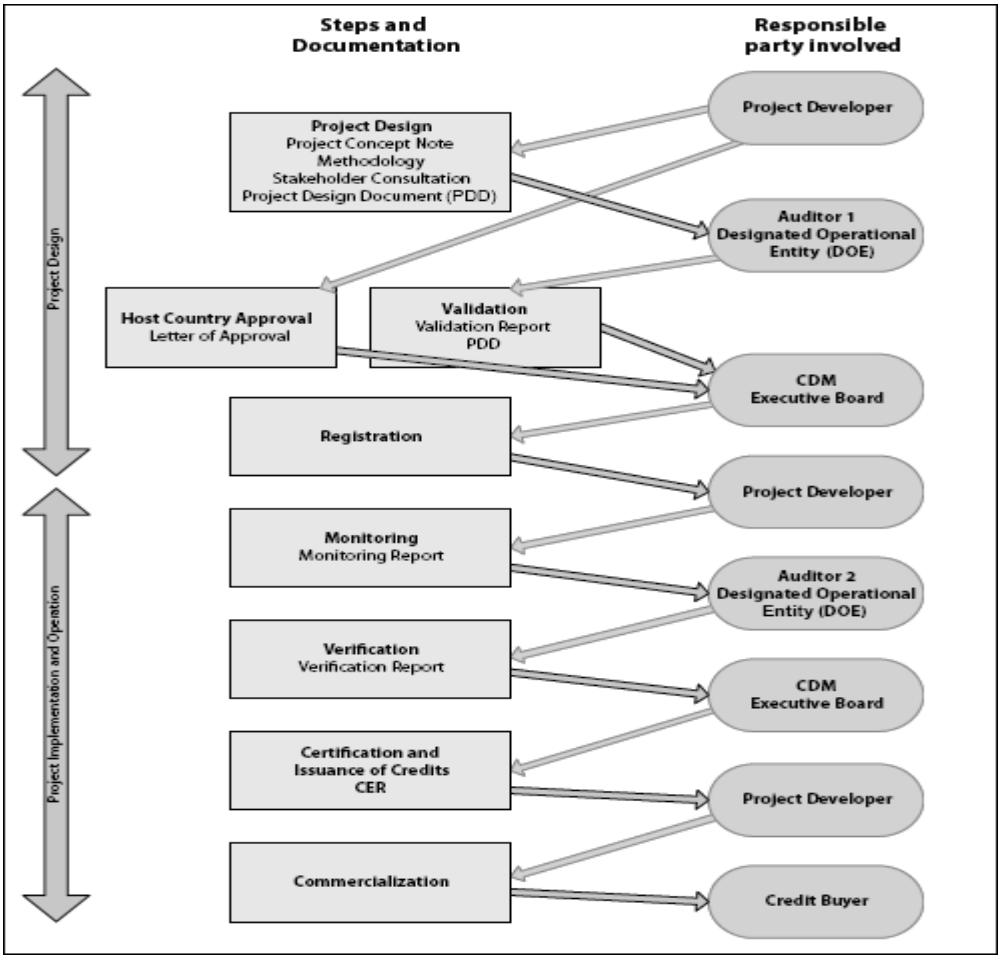
Before credits can be generated and sold it is a lengthy and time consuming process to register such projects. There are strict rules and regulations that have to be met and any potential AR CDM project have to be registered and approved by the CDM Executive Board (CDM EB)[8]. The major steps of the CDM project cycle are summarized in figure 2, but I will not go through the whole cycle in detail, rather highlight some of the most important aspects such as the Project Design Document (PDD). The reason for this is that the PDD is maybe the most important document in the cycle and forms the basis for the CDM EB

[7] For more specific information on tCERs and lCERs see Point Carbon & Perspectives 2008:9

[8] "The CDM Executive Board is an international decision making body that supervises the CDM, under the authority and guidance of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP), and is fully accountable to the CMP (see also Modalities and procedures of the CDM: Role of the Executive Board. Decision 3/CMP1 (also known as the Marrakech Accords)) (available at: http://cdm.unfccc.int/EB/background.html)

evaluations and registrations. The PDD is developed by the project developers themselves and contains central elements such as the additionality test, the description of the baseline, estimation of GHG mitigation potential, and the presentation of the public stakeholder consultation. The last point "means that during PDD development the local public has to be given the opportunity to express possible doubts concerning the project (e.g. local authorities, households, and local NGOs)" (Point Carbon & Perspectives 2008:11). Another important point of the project design document is additionality, because what the project sequester has to "add" to what otherwise would be mitigated if the project had not been realized, meaning that the project cannot have started before or on December 31st 1999. Due to this, many projects are not approved, as they started earlier, and therefore have to turn to the voluntary market to sell the credits from their projects.

Figure 2: The CDM project cycle



Source: Carbon Association Australia Ltd. (http://www.caaltd.org/projects.aspx)

5.4 Carbon Offset Standards

As mentioned earlier, to be able to sell carbon credits, the projects generating them need to be approved and certified. There are several standards, protocols and verification methods to do so, but when it comes to CDM/JI projects they are regulated by the Kyoto Protocol and have to meet a detailed set of standards developed under this regime. In addition to the standards set by the CDM Executive Board, CDM projects are regulated by guidelines for such projects in the host country to meet the goals of sustainable development for that particular country[9]. While for non-CDM/JI projects there are no universal acknowledged international regulations, and the offset organizations themselves are the main actors governing the offsets, and there are a range of verification techniques and methods to choose from (Lovell et al. 2009). However, the Gold Standard[10] (GS) is by many recognized as the leading verification and methodology standard for certifying carbon credits in both the compliance- and the voluntary market. It was developed by a group of NGOs in 2003, led by the World Wide Fund for Nature (WWF), in an effort to secure the purpose of sustainable development with the CDM as they were fearful of less stringent criteria from the host countries. The goals of the standard was seen as attractive, which also led organizations to apply it to projects in the voluntary market also to secure sustainable development goals herein (Taiyab 2006).

In addition to this, there is a range of standards that can be used to further verify the projects, and give them additional value in terms of other criteria the project developer finds important to the attractiveness of the project and the following credits. The Voluntary Carbon Standard[11] (VCS) is such a standard and has quickly developed into an acknowledged and international market leader. The work of developing the organization started in late 2005, initiated by The Climate Group, the International Emissions Trading Association (IETA), and the World Business Council for Sustainable Development (WBCSD). After several close consultations with carbon market stakeholders, the VCS was released in November 2007 (Lovell et al. 2009). The VCS only review projects that already are approved, unlike CDM/JI

[9] For more information on Tanzania's sustainability criteria for CDM projects see: A handbook for Clean Development Mechanism (CDM) project activities in Tanzania (URT 2007).
[10] For more information go to: http://www.cdmgoldstandard.org/
[11] For more information go to: http://www.v-c-s.org/

and the GS. The VCS also verifies forestry projects unlike the GS, which only accepts clean energy projects, and in addition Reducing Emissions from Deforestation and Degradation (REDD) is eligible under the VCS program.

Furthermore, there are also other organizations, which provide standards that can give additional value to projects. Especially interesting for this study, and since Green Resources apply to them, are the Climate, Community and Biodiversity Alliance[12] (CCBA) and the Forest Stewardship Council[13] (FSC). The CCBA is a partnership among research institutions, corporations and NGOs who in 2005 launched a "Gold Standard" for Land Use, Land Use Change and Forestry (LULUCF) projects called the Climate, Community and Biodiversity Standards. The objective of this initiative is to ensure that the biodiversity and community benefits are reached by LULUCF projects, and to prove this, projects have to meet 17 criteria. This is evaluated by independent auditors, and the projects get awarded Silver or Gold status depending on the quality of the project (Taiyab 2006). Green Resources was in October 2009 given a Silver level classification for the quality of one of their projects in Tanzania.

The FSC on the other hand is an independent, not for profit, NGO based in Bonn Germany that provides standard settings, trademark and accreditation services for companies and organizations interested in responsible forestry. It was established in 1993 as a response to the concerns expressed at the UNCED in 1992, especially regarding global deforestation, and their mission is to "promote environmentally appropriate, socially beneficial and economically viable management of the world's forests" (FSC 2010). To receive verification, the projects have to meet 10 principles and 56 criteria, which have been developed by the organization. Green Resources received accreditation for two of their plantations in Tanzania in 2008, and is pending approval for a third that is undergoing some corrections.

[12] For more information go to: http://www.climate-standards.org/
[13] For more information go to: http://www.fsc.org/

5.5 The Contested Performance of Carbon Offset Forestry

Carbon trading has been under much scrutiny recent years, and it is especially the CDM and the carbon sequestration projects (forestry) that has seen its fare share of critical reviews. Many have referred to them as a business-as-usual approach or climate colonialism (Bachram 2004; Benjaminsen & Bryceson 2009; Boyd 2009; Gilbertson & Reyes 2009; Lohmann 2006). The reason for this is that carbon offsetting is seen by many as a diversion from the real problem. Instead of addressing domestic practices and consumption patterns to reduce emissions, projects to offset these emissions are excuses for the world to continue the over-consumption of the global resources. In addition, concerning carbon offset forestry, there are many uncertainties and risks involved (such as baseline calculations, fires, illegal logging, etc.), and the plantations occupy large portions of land possibly compromising the future of those living in and around the plantations leading to a new type of neo-colonialism, this time in the name of fighting global warming.

Furthermore, some have also pointed out that this is a manifestation of the dominant neo-liberal world view, which promotes a market economy. Through the privatization of what previously was commons have turned nature into a commodity, selling it behind "discourses that focus on conservation values, sustainable development and efficiency" (Lovell et al. 2009:2360). Or as Nick Davis of *The Guardian* pointed out, carbon offsetting is not "an idea which flows from environmentalists and climate scientists trying to design a way to reverse global warming but from politicians and business executives trying to meet the demands for action while preserving the commercial status quo"(Davis 2007). These critical narratives have not emerged from nowhere, but have evolved in response to different interests and interpretation of the environmental discourse that has dominated international environmental politics for decades. Through a literature review[14], I have identified several discourses regarding CDM carbon sequestration projects, and which I will use to illustrate the emergence of the different narratives mentioned above.

[14] The review have been conducted through the review of several articles and books used for the purpose of this study, however, the review put particular emphasize on (Bäckstrand & Lövbrand 2006; Pettenger 2007; van der Heijden 2008)

5.4.1 "Win-Win" vs. Critical Discourses in Carbon Offset Forestry

Carbon offset forestry, or carbon sequestration projects, are much embedded in a "win-win" rhetoric that claims to benefit all actors involved. The emergence of this narrative, Bäckstrand & Lövbrand (2006:60) suggest, was "the prominence of the ecological modernization discourse in climate governance" at the establishment of the carbon market through the UNFCCC and the Kyoto Protocol. The discourse has its roots in the 1970s when the environment became the focal point of the political agenda (Hajer 1995). The key features of this discourse is that it is a reformist and regulatory approach, that is fully compatible with economic modernization that promotes innovation and great competitiveness, but which at the same time is environmentally friendly and supports a sustainable development (Adams 2009)[15]. Hence, this is the background leading to the "win-win" rhetoric surrounding carbon offset forestry projects. It is seen as an innovative and cost effective mechanism that mitigate climate change, while at the same time decreasing deforestation, protecting biodiversity and supporting local socio-economic development in the South (Bäckstrand & Lövbrand 2006). In this way the CDM forestry projects are a manifest of the ecological modernization discourse allowing the industrialized countries to continue as normal by just "green" labeling their practices and technologies, and thus, the root for the critical counter-narratives about business-as-usual and the promotions of neoliberal markets as mentioned in the introductory to this section.

Another environmental discourse seen to promote the "win-win" rhetoric around these projects is the green governmentality discourse. As suggested by Agrawal (2005), who has named his conceptual framework environmentality, green governmentality is the merger between environment and the Foucauldian governmentality. According to the original account by Michael Foucault in the late 1970s, governmentality is connected to the institutions, authorities and agencies that seek to shape the way subjects are governed (Dean 1999). Luke (1995), who has also used the term environmentality, would in this case see the UNFCCC and the Kyoto Protocol as agents of such governmentality who attempts to control and dominate environmental policy and activities, especially in developing countries. These transnational environmental organization, he suggest, acts as stewards of nature and

[15] See e.g. Hajer (1995) for more in-depth discussion on ecological modernization.

manages its resources in the name of sustainable development and environment. As so, carbon sequestration projects can be seen as instruments of this type of governmentality seeking to influence human behavior, and hence, critical narratives about privatization and commodification of nature, which have in many cases done the opposite of preserving the environment and promoting sustainable development.

The last environmental discourse identified regarding carbon sequestration projects is the civic environmentalism discourse (van der Heijden 2008). Also this discourse emerged in the wake of the UNFCCC at the Rio Summit (UNCED) in 1992, where terms such as "participation" and "inclusion" reached the global environmental agenda. However, this discourse does not support the "win-win" rhetoric, but rather pose as a critical opposition to the two dominant discourses. The discourse supports the more critical narratives mentioned above and in the introductory to this section, and focuses on the inclusion of indigenous knowledge and participation as a precondition for successful forest projects and sustainability. The discourse also "highlights the ecological and social risks inherent in tree plantation projects" (Bäckstrand & Lövbrand 2006:64). One of the more radical narratives within this discourse is the North-South inequalities, ecological and developmental narratives, which focuses on the business-as-usual approach taken by Western countries, and which have been named by some radicals as "green cosmetic" (Bäckstrand & Lövbrand 2006). A more reformist narrative within this discourse has accepted the existence of the carbon market and rather focuses on the design of the CDM projects to ensure that the dual goals are met in order to secure the benefits of social and economic development for local stakeholders in the South (see e.g. (Boyd et al. 2007; Boyd 2009).

In this way, we can see how these narratives, both the win-win and critical, have empowered the discourse about climate change, and carbon offset forestry, which have influenced politicians and policy makers in their search for solutions to "global" problems.

6 Study Area

This chapter will start out by introducing the study area in terms of geography, climate and vegetation, as well as a social and economic profile. Thereafter, a background on the issue of land rights in Tanzania, and the historical and present land tenure situation will be given. This to understand what kind of implications such projects can have on local land tenure, and how it is governed. Lastly, an introduction to the company, Green Resources AS, will be given together with a profile of the three forest plantations visited during the fieldwork of this thesis.

6.1 Geographical Profile

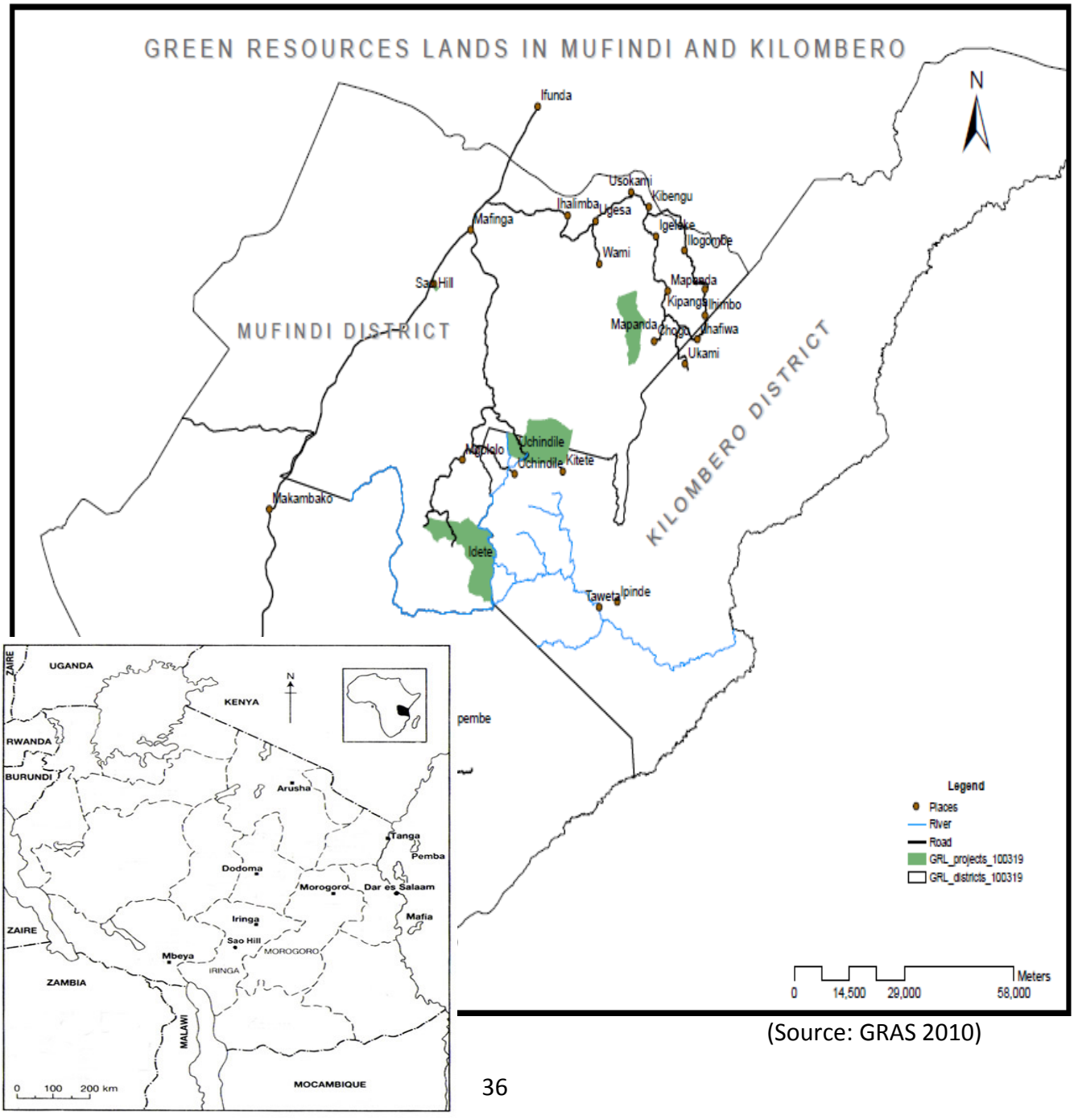
This thesis focuses on three forest plantations, Idete, Mapanda and Uchindile, and the six villages that are surrounding them and that has contributed with land to Green Resources. The plantations and villages are situated in the Southern Highlands of Tanzania. However Idete and Mapanda are found in Mufindi District in the Iringa Region, while Uchindile is found in Kilombero District in the Morogoro Region (see figure 3.1).

Iringa Region stretches from the semi-arid central Tanzania in the north to the shores of Lake Nyasa in the south. The region is separated into seven districts and the regions capital is Iringa. The region covers an area of 58 936 km² (5,893,600 ha) where about 73 percent is arable land (NBS 2007b). Mufindi (7123 km^2) is one of the seven districts in the region and had in 2002 a population of 282,071 according to the national population and housing census. By using the annual average growth rate between 1988 and 2002 of 1.5 percent, we can estimate that the population in Mufindi today (2010) is about 320,000 (URT 2002). Mufindi consists of five urban townships and 131 villages, and the administrative headquarters and District Council (DC) of Mufindi are found in Mafinga. The villages visited in Mufindi are Idete and Makungu (see Mgololo in the map) to Idete forest project, and Mapanda and Chogo, to Mapanda forest project.

Morogoro Region is located in the central-eastern part of Tanzania's mainland, and covers an area of 70,799 km² (7,079,900 ha)(NBS 2007a). The region is separated into six districts

and the regions capital is Morogoro. Kilombero (13577 km^2) is one of the six districts in Morogoro region and had in 2002 a population of 174,920 according to the national population and housing census. By using the same growth rate as for Mufindi (1.5% per year), we can estimate that the population of Kilombero is today (2010) about 200,000. The administrative headquarters and the District Council of Kilombero are found in Ifakara, and the villages visited in Kilombero are Uchindile and Kitete, to Uchindile forest project.

Figure 3: Green Resources Lands in Mufindi and Kilombero



(Source: GRAS 2010)

6.2 Climate and Vegetation

Mufindi district is mountainous with one of the coolest and wettest climates in Tanzania. The main vegetation type is grasslands with large tea and forest plantations dominating the landscape, mainly Pine. The annual rainfall in the region ranges from 500mm in the lowlands to 1600mm in the highland plateau where some mountain hills reach up to 2700m above sea level. Temperatures vary from 15^{o}C, which can in the coldest period (June-July) drop further down, to around 25^{o}C, but with an average of 20^{o}C in most parts of the region (URT 1997a). Abundant rains make the soil fertile, and combined with the temperature it is a good area for planting forests. However, for the villages visited, farming is difficult as they are situated in quite steep areas. In addition, the heavy rainfall is not always good for the crops as it washes out the nutrients in the soil.

Kilombero district is a valley and the landscape is very varied, ranging from alluvial floodplains situated less than 300m above sea level, to the Selous Game Reserve in the west, and mountain hill sides in the east reaching up to 1700m above sea level. The annual rainfall in the region ranges from 600mm in low lands to 1200mm in the highland plateau, and temperatures vary from 18^{o}C to 30^{o}C, with an average of 25^{o}C in most parts of the region. The vegetation in the low lands is characterized by the large sugar-cane crops, while in the high lands, where the villages I visited are located, the vegetation is similar to Mufindi with grasslands and forest plantations (URT 1997b: and own notes). Also, the villages visited here are situated in steep areas and are facing many of the same problems as the villages in Mufindi.

Picture 1: View over Kitete Village and TAZARA railroad

6.3 Socio-Economic Profile

The main economic activities in the Iringa region are agricultural production, livestock rearing and fishing, and the main cash crops are tobacco, tea, pyrethrum, sunflower and coffee, as well as some oil crops. In general, agriculture is the main economic activity in the region, contributing to more than 85 percent of the region's GDP and employing more than 90 percent of the regional population (NBS 2007b). Furthermore, Mufindi is most know for its tea and forest plantations, but the district is also important for maize production and has the largest groundnut planted area in the region, while the vegetable production in the district is small (NBS 2007b).

In Morogoro region agriculture is also the main economic activity, along with livestock rearing and fishing. The main cash crops are cotton, coffee, sisal, sugar-cane, onions, and oil seeds such as simsim and sunflower. Agriculture employs 80-90 percent of the regional population, and the main source of cash income in the region is therefore from the sale of food crops, which is the second highest in the country after Iringa (URT 1997b). The majority

of the villagers in the Kilombero District are subsistence farmers of maize and rice, paddy production being the most important with a planted area per household of 1.2 ha, considering the average land area utilized per household is 1.9 ha. There are also large plantations of teak wood in Kilombero and the neighboring Ulanga district, and in the north-west of the district the South-African sugar company Illovo occupies most of the low-lying area with their sugar-cane plantations (NBS 2007a).

According to Tanzania's latest population and housing census in 2002 the six villages visited have the following population size:

Table 1: Population size of the six villages

Village	Population	Men	Women
Idete	3 094	1 536	1 558
Makungu	5 585	2 773	2 812
Mapanda	3 969	1 824	2 145
Chogo	909	398	511
Uchindile	1 034	521	513

(URT 2002)

These numbers are similar with the numbers received from the Village Councils in the different villages which originates from either 2008/2009 or 2009/2010. Tanzania has a high population growth and had in 2002 an annual growth rate of 2.9 percent (NBS 2009:15). However, it seems like this does not apply to the villages in question, as the numbers I received are similar with those from 2002. The VEO in Uchindile claimed they had a growth rate of 5 percent, but also told me that many had moved back to the village after Green Resources started their projects due to employment opportunity. Thus, the high growth rate, which now probably have stagnated or at least slowed down.

Tanzania has some 120 different ethnic groups, and several religious beliefs. Bena and Hehe are two of the biggest ethnic groups in the Iringa region, and even if two of the villages are in another region, they are all in the same area neighboring each other along the Tazara railway. Moreover, I was explained that mixed marriages were usual, and that in some of the bigger villages like Makungu, there were settlers from many places in Tanzania.

In conclusion, in the six villages I visited most of the inhabitants are agriculturalists with a low rate of livestock keeping, actually the smallest percent in the country (NBS 2006:54). However, chickens were seen everywhere as well as goats, but there were few or no pastoralists of my knowledge. Many still practice shifting cultivation, but this has decreased in recent years due to more pressure on land and that farmers use some land for own private woodlots. Most of them are subsistence farmers and agriculture is the main source of income. For some of the villages there are other income opportunities available. Lastly, I did not hear anything about illegal logging in the forests, which is a general problem in Tanzania (Milledge et al. 2007), but this is probably due to GRs efforts of giving away seedlings allowing the locals to plant their own trees, which they can use as they please.

Picture 2: Residents in Idete outside shop

6.4 Land Tenure in Tanzania

The main livelihood activity in Tanzania is agriculture and pastoralism providing for more than 80 percent of the population, and with over 70 percent residing in rural villages land tenure is a central issue (URT 2005). Securing rights and titles over customary land is therefore important to ensure livelihoods and food security in the rural parts of Tanzania. In

the following sections I intend to give a brief introduction to the history of land tenure in Tanzania, and the legal framework governing land in Tanzania today, and how private foreign investors go about acquiring land. Note that The United Republic of Tanzania is a union of two countries, the former Tanganyika and Zanzibar. In this section I will deal with land tenure in the former Tanganyika or Tanzania mainland.

6.4.1 The Historical Land Tenure Regimes

Tanzania's land tenure framework is very influenced by the land tenure regimes during the colonial era, which like many other countries in sub-Saharan Africa is characterised by state control. The colonial authorities did not put much consideration into the indigenous people giving them no ownership rights of the land. Thus, the colonial government did not only take away their political sovereignty, but also their property (Shivji 1998). Tanzania was first colonised by Germany (1885-1916), which introduced a land tenure framework that was characterised by huge land alienations in order to secure land for its European settler plantations. This in turn led to about 1,300,000 acres of agricultural land to be alienated as freehold at the end of the German period (Sundet 1997). The period between 1914 until the British took over in 1918 is known as the East African Campaign (World War I), which was a war started in German East Africa (Tanzania) and ultimately led to end of the German rule. In 1920 Great Britain (1918-1961) took over Tanganyika as a trustee under the League of Nations, thus for most of its history Tanzania's land tenure regime has been governed by the Land Ordinance passed by the British in 1923 (Izumi 1998). The ordinance still forms the basis for much of today's legal framework and the President still acts as the "Governor" of land matters, giving him the opportunity to grant and administer land in the public interest. However, often not in favour of the rural population (Maganga 2003; Shivji 1998).

Tanzania was a Trust Territory and the 1923 Land Ordinance was criticised by the Permanent Mandates Commission of the League of Nations for its inconsideration of customary rights, and in response the British introduced an amendment in 1928 that expanded native rights. Even if customary land titles were recognized as "deemed rights of occupancy" by the new amendment, they were not protected. The reason for this was that the Ordinance declared all land as public land and the Governor could therefore claim back the land at any time

(Izumi 1998). This was a "deliberate creation of colonial policy" Shivji (1998:4) claims, and that "insecurity of tenure is not inherent in customary land regimes" as many suggest. Due to these colonial practices, and the socialist and modernisation policies following independence in the 1960s-70s, the state gained more control over the land and the customary tenure system was seen as inherently backwards and inefficient (Izumi 1998).

After Independence in 1961 no real changes were made regarding land tenure policies, except the abolishment of freehold titles and customary leasehold, which was abolished due to the fear of rich Tanzania's and foreigners buying the country (Izumi 1998). This did not prove any particular value as the Government still "targeted the same groups and for the same reasons as in the colonial era" (Sundet 1997:13). Furthermore, the President took the place of the Governor, and with Julius Nyerere as Tanzania's first president in 1963 several schemes were launched. Of particular interest for land tenure were the Arusha Declaration of 1967 and the policy of Ujamaa. The goal of which was to reform agricultural production for export and to integrate the economy with the world capitalist market (Shivji 1998). This new African model for development revolved around large-scale agriculture under state authority and small-scale agriculture under villagisation, the latter leading to the resettlement of millions of peasants and often through force[16], and the former leading to several customary holders alienated for the "public interest" (Izumi 1998). However, this rapid transition to the Ujamaa policies lead to a decline in agricultural production and considerable social problems (Sundet 1997).

In the 1980s, Tanzania liberalised its economy and in effect further suppressing customary tenure in an effort to create a good environment for a free market and to encourage foreign investments and private companies (Izumi 1998). In turn, this shift towards neoliberal policies lead to intensified competition for land by foreign investors and several rural households were alienated due to "land grabs"[17]. In addition, the historical neglect of

[16] When methods based on voluntarism and persuasion didn't work "it was decided to make villagisation compulsory and the President ordered that by the end of 1976 the whole rural population should have moved. Thus began 'Operation Tanzania' which resettled millions of peasants and pastoralists in old or newly formed villages" (Shivji 1998:12).

[17] Land grabbing is land acquired without consent from all involved parties by persons in positions of power and/or material wealth and influence (Shivji 1998:36).

addressing customary tenure and the confusion regarding land tenure patterns "fuelled widespread rural discontent with land tenure policy and administration, ultimately resulting in the convening of a Presidential Commission of Enquiry into Land Matters in 1991" (Sulle & Nelson 2009:37). The Commission visited the districts during 1991-92 in a highly participatory fashion to identify problems regarding land ownership, and in 1994 they published their findings, which lead to the creation of the new National Land Policy in 1995. The main objectives of the policy were to protect the various types of existing rights, even if they were not registered, and to empower the citizens by decentralizing governance in land by localizing land administration (Wily 2003). However, as we will see in the next section, the interpretations of this were mildly put somewhat indifferent.

6.4.2 The Present Legal Framework

The present legal framework governing land in Tanzania is the 1999 Land Act #4 and Village Land Act #5, which both came into force in May 2001. The two acts are the first major reforms since the Land Ordinance of 1923, and they were developed to put the 1995 National Land Policy into law. The two laws were originally drafted as one, but the law was found too comprehensive and difficult, and therefore split up in two. Hence, the laws are quite similar, and in some cases both laws need to be interpreted, but the main difference is that the Land Act mainly deals with government- or general land, as well as reserved land, and the Village Land Act deals with village land (Wily 2003). Land can therefore fall into three categories:

- General land
- Reserved land
- Village land.

General land is any land which is not reserved and village land, including all urban areas and land for which individuals/companies have received leases from government. It is governed by the Land Act and is under the authority of the Commissioner of Lands in the Ministry of Lands, Housing and Human Settlements Development. Reserved land is land set aside by sectoral legislation such as national parks, game- and forest reserves, marine reserves and so forth, and is governed by 9 listed laws (e.g. forest reserves are governed by the Forest Act 2002) through the bodies set up to enforce these. Village land is land within the agreed

boundaries of Tanzania's more than +10,000 villages, and is governed by the Village Land Act where the Village Councils act as Land Mangers of their respective area (Wily 2003). However, all land in Tanzania is formally owned by the State or the President, but the management and administration is decentralized and delegated to ministry officials in all the three categories. The President therefore just acts as a trustee on behalf of all Tanzanian citizens who are the "real" owners and his actions are therefore restricted to those that are in the public interest (Wily 2003).

Although all land in Tanzania is owned by the state, the majority of the population have access to land according to customary rights and village by-laws (Maganga 2003). Earlier these rights were not protected, but now "customary rights of occupancy" are legally equal to any "deemed" or "granted rights of occupancy", which is maybe one of the most important and substantial changes in the new legislation to strengthen customary tenure (Wily 2003). However, Maganga (2003:52) points out that "more and more private individuals are trying to obtain formal rights, because of the perceived insecurity that is associated with informal arrangements or customary rights." This is also encouraged by the new Village Land Act, but the rural population often lacks knowledge on how to do this and the process is very bureaucratic (Wily 2003).

Moreover, recent attempts to formalize customary rights have been unsuccessful. A flurry of formalization projects, inspired by Hernando de Soto's ideas in the book *The Mystery of Capital (2001)*, has been conducted in several developing countries. De Soto's approach advocates formalization of property rights in order to legally empower poor and marginalized groups. By simply following five stages a country will be able to transition into "the rule of law and an inclusive market economy" (ILD 2008). Amongst others a program by de Sotos own Institute for Liberty and Democracy (ILD) was conducted in Tanzania. According to their web-page, 67 bottlenecks were found during their "diagnoses" of Tanzania, which are responsible for excluding the poor and their ability to create wealth. This blueprint to development attracted several politicians and officials in the international development industry amongst other the Norwegian government who funded some of the stages of the formalization program in Tanzania. However, the program was unsuccessful

(Benjaminsen 2007), because as further recognized by Benjaminsen & Sjaastad (2007), such a blueprint to development involves high risks and can lead to increased number of land conflicts.

In an effort to both please its inhabitants and the needs of modern Tanzania in the context of a liberalized economy, the Land Act also opens to more private and foreign investments. This refers mainly to General Land, which is under central government control, and that the Tanzanian Investment Center (TIC) has identified as available land for investments, which investors can apply to (Sulle & Nelson 2009). The available land identified by the TIC is not always found suitable by the investors who have found other areas of interest that are often situated within village land. Foreign investors cannot acquire village land and "may only obtain land for purposes of investment from the holder of a granted right of occupancy, which may be a private individual or entity, or the government (Ministry of Lands or TIC)"(Sulle & Nelson 2009:38). In spite of that, the Land Act confusingly defines unoccupied and unused village land as general land, which enables foreign investors to acquire village land after all (Wily 2003).

6.4.3 Political and Administrative Structure

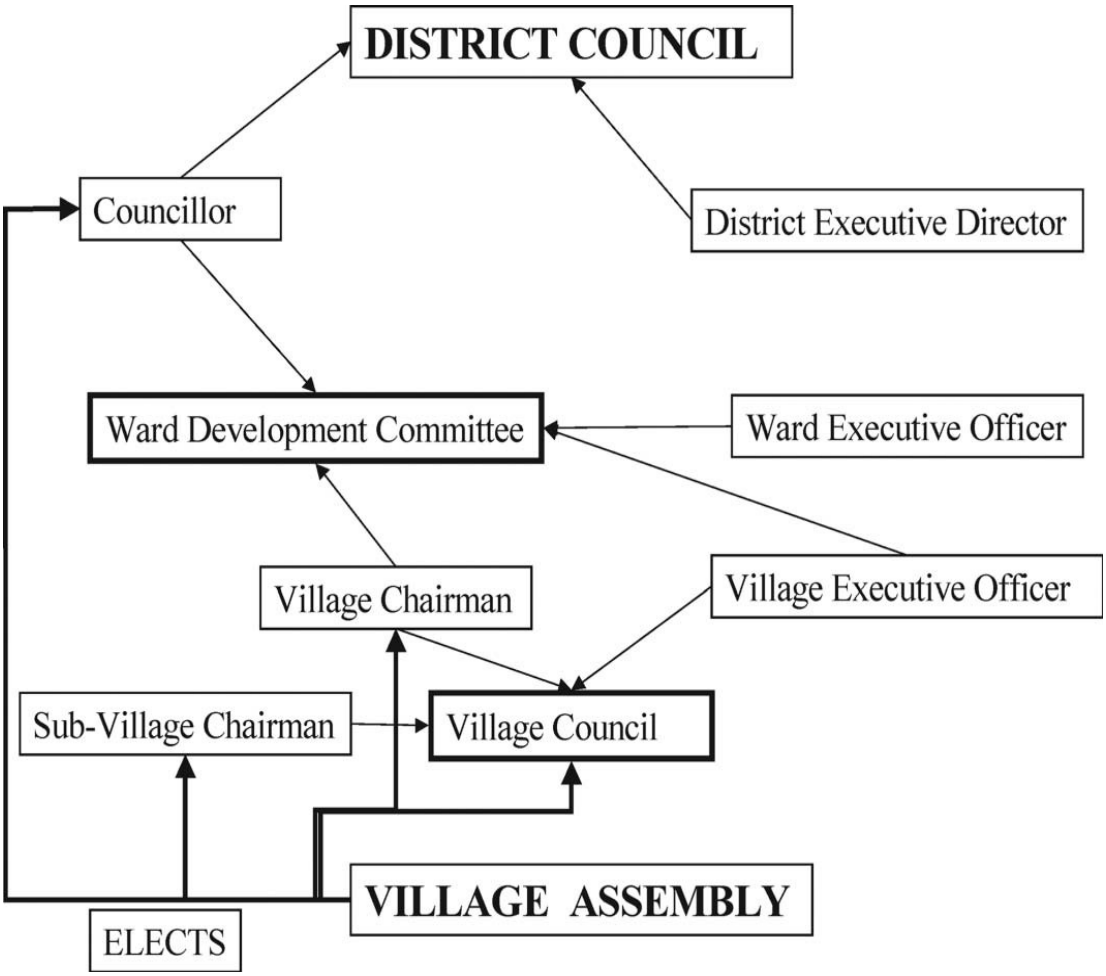
In order to better understand the decision making process regarding land acquisitions in Tanzania it is important to understand the political structure and the administrative divisions. The research for this study has been conducted in two regions, but Tanzania is divided into twenty-six regions, and each of these regions are further divided into districts. Each district is further separated into wards, which are a cluster of a few villages.

This structure, that governs all rural villages in Tanzania, was established during the Ujamaa in the 1970s. However, significant changes have been done since, and the Village Council has more power than before. As can be seen from figure 5, the village assembly is the lowest level in this structure, and comprise of all the members of the village community above the age of 18. After the introduction of multi-party democracy in 1992 the Village Assembly elects the Village Council every five years (Brockington 2008), and "the only ex officio members of the Council are Chairpersons of Sub-Villages, elected by the membership of their respective Sub-Village only" (Wily 2003:4). At least one quarter of the Council have to

be women, and the Council has both governing and legislative power such as village bye-laws. The village bye-laws can enter into law and has proved as an important instrument for the village communities in administering their resources and who can have access (Wily 2003).

Furthermore, a cluster of villages comprise the Ward who monitors the villages, and elects its own councilor to the District council. The Ward Development Committee (WDC) (see figure 5) is an important organ in the Ward and comprise of the Village Chairmen from each village in the Ward. The WDC acts as a forum for the district councilor of that ward and the village chairmen to know the local needs and problems. The District Council is also elected and mainly assists the Village Councils through supervision and advises. A decision in the District Council, or at regional or national level, is communicated through the District Executive Director who instructs the Ward Executive Officer, and who in turn instructs the Village Executive Officers (Brockington 2008; Wily 2003).

Figure 4: Administrative structure from district to village level in Tanzania



(Source: Brockington 2008:109)

6.4.4 The Process of Acquiring Land

Most foreign investors interested in acquiring land in Tanzania starts at the Tanzanian Investment Center (TIC). To be able to do so, the investors have to meet a range of requirements such as a minimum investment amount. When the requirements are met the investor has to submit the business idea and –plan to the TIC for registration and verification before a "Certificate of Incentives" is given. Next, when the certificate is obtained, the investor goes to the government ministry, which is responsible for their particular project. In the case of CDM projects the Project Design Document (PDD) has to be approved by the Designated National Authority (DNA) before the project developer can proceed. Then the investor has to go to the district where land has been found suitable and perform a land

survey, which is later registered by the Ministry of Lands, Housing and Human Settlements Development. At last, when land is obtained, the project is registered and approved by the respective government ministry before a right of occupancy can be granted (Sulle & Nelson 2009)[18].

Some investors wish to acquire land that is found within the boundaries of village land. Foreigners can only hold rights to general land; therefore the village land has to be converted into general land before any investments can start. This is a long and complicated process, but both ways are used to acquire land for CDM projects. In the village, the Village Council (VC) acts as land managers and as first step the investor has to seek approval there. The VC consults the Village Assembly, which consists of all residents in the village over the age of 18. If they approve and the land in question is less than 250 acres they are able to simply provide this to the investor. If the land is more than this, the request has to be forwarded to the District Council Land Committee for approval before it is passed over to the Ministry of Lands, Housing and Human Settlements Development and the President can transfer the land from village- to general land. If any households have to move due to the project, compensation has to be paid by agreement between the village and the Commissioner of Lands. If the villagers do not find the compensation satisfactory, they can appeal to the High Court. Finally, when everything is in place, a granted right of occupancy is issued (Sulle & Nelson 2009; Wily 2003).

Though, it is important to note that in practice the titles given to private foreign investors is called a Certificate of Occupancy (COO), which is similar in nature and legal significance as the granted right of occupancy. The COO is not given for perpetuity, but is a form of leasehold that can be granted for 33, 66 or 99 years, the latter being most often used. In addition, due to increased interests in land from foreign investors in Tanzania, especially for biofuel production, the Government has recognized that too much land has been given away in some areas, compromising the livelihoods of the indigenous people. Therefore, after the 2007 National Land Use Planning Act, villages are required to have a land use plan before allocating any land. In addition, they have to have at least 2/3 of the village land left for own

[18] For more information see also TICs homepage: www.tic.co.tz

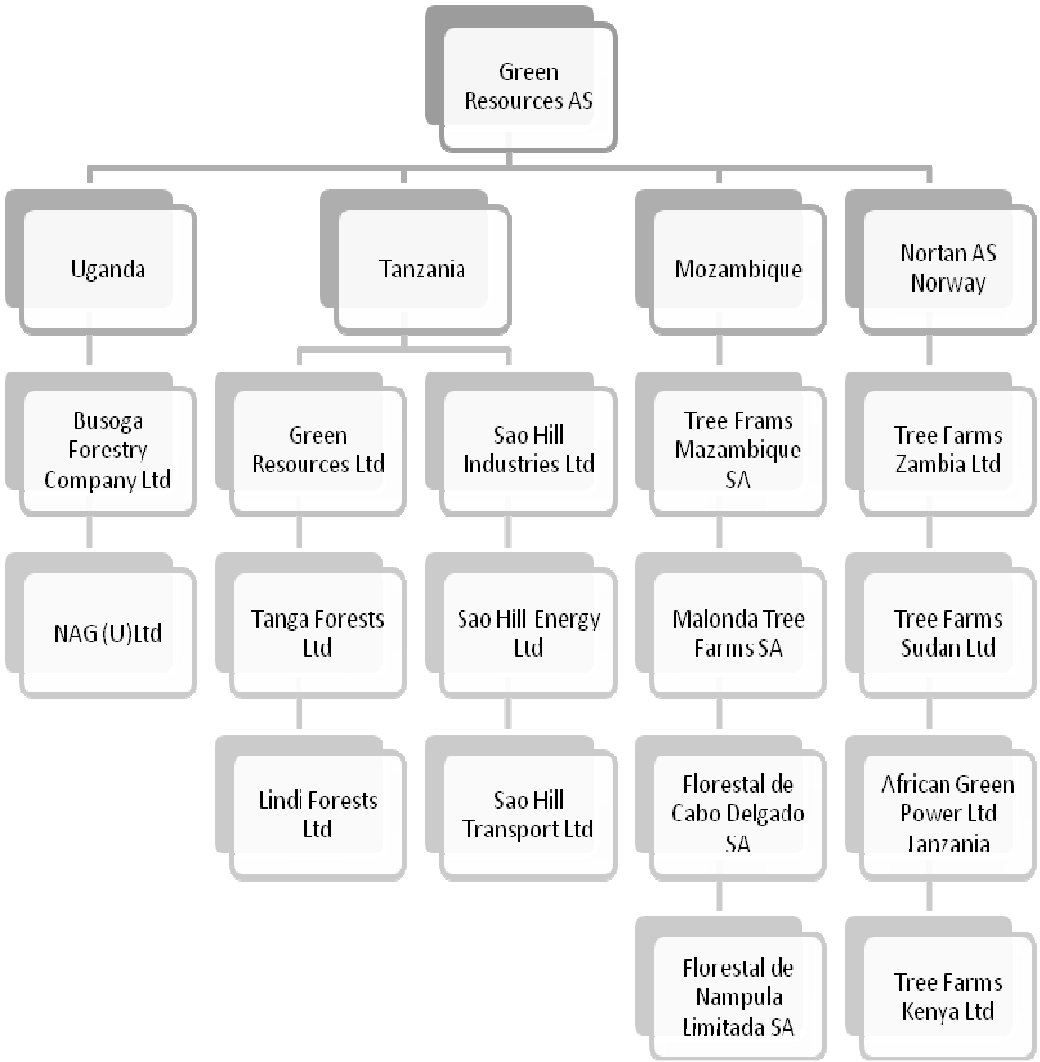
use. This is also a requirement in the 1999 Village Land Act, but as I have been explained the law about this was a bit more “relaxed” before the National Land Use Planning Act was implemented in 2007, which is also the reason for the new act (Interview with Mufindi District Land Officer 07.12.09). In an effort to improve this, the National Land Use Planning Commission is traveling out to the different villages to map each village to make land-use plans. However, it is expensive and time consuming. That is why the Commission is encouraging private companies who are interested in land to make their own land-use plans for the benefit of the Commission as well as the village, but not at least the companies as they cannot receive approval for land before such a plan is in order (interview with Jerome Nchimbi at the National Land Use Planning Commission 23.11.09).

Lastly, it is important to note that the land for the three forest plantations in question was negotiated and acquired before the Village Land Act of 1999. This means that at the time the Government was the acting land managers of village land, and the Village Council had no formal power. However, to my understanding the process was similar to the process described above, but that the village council did not have any formal power to reject an application for land.

6.5 Green Resources

Green Resources AS is a Norwegian company that was started in 1995. The company was founded by Mads Asprem who earlier worked as an equity analyst and Managing Director for Morgan Stanley in London and vice president in Merrill Lynch, before he took over as Managing Director for Green Resources AS in 2006[19]. The company has a long and intricate history with several name changes and mergers, Green Resources AS was formerly known as Fjordgløtt AS up until March 2000 and Tree Farms AS until August 2007, and have today several subsidiaries in different countries (Gaarder 2009)(see figure 6).

Figure 5: Company structure of Green Resources AS



[19] Profile on Mads Asprem: http://www.prima-papernetwork.org/cms.cfm/bereich/conferences/cms_id/389/gallery/1

Green Resources AS (in the following GR) is a "plantation, carbon offset, forest products and renewable energy company", and as seen from the figure, they have operations outside Norway in Mozambique, Sudan, Tanzania and Uganda (GR 2009:2). Already from the start Mads Asprem's ambitions were to be a leading developer of forest plantations that could produce GHG emissions credits. In the late 1990s people started to believe in the carbon market something Asprem probably had recognized and wanted to explore[20]. The reason why the company chose to start their operations in East-Africa is according to their web page "because of land availability, good rainfall, highly qualified foresters, low-cost labor, stable governments and a longstanding Nordic development aid presence in the region[21]".

After some pilot forest plantings in Uganda and Tanzania in 1996/97, they successfully acquired some land and were able to expand their operations. However, the planting was slowed down by the economic recession in 2000, which consequently lowered the expectations to the carbon market. In spite of this, the company survived, and in 2003 the company was able to acquire Sao Hill Sawmill (SHS) that would give them valuable profits in the future alongside the carbon revenues. SHS has deep roots in Norwegian development assistance and was built in 1974 with the support of the Norwegian Agency for Development (NORAD) (Bavu et al. 1983). It was partly run by a company owned by the Tanzanian government, but operations were unsuccessful. After years of low returns the assets were privatized in 2000 and GR was able to acquire SHS that they had already leased since 1998. In addition, there was a renewed confidence in the carbon market and GR were once more able to increase its operations (GR 2009).

Today GR have grown into Africa's leading forestation company and has more than 14,000 ha of forest, which is used to generate carbon credits, bio-energy and to manufacture wood products. In total GR, have 200,000 ha of land at hand that is available for planting, but also for conservation, making their projects eligible for a future REDD program. In addition, their projects have in total created more than 3,200 jobs, employing about 280 permanent staff of different character and between 500-1000 casual workers depending on peak operations

[20] Own notes from interview with Olav Bjella 13.01., Resource Management Director at Green Resources AS

[21] See: http://www.greenresources.no/Company/History.aspx

just in Tanzania. The carbon credits are generated from forestation, bio-energy and renewable electricity. Their goal is to manage environmental sustainable forests according to FSC and CCBA criteria. Furthermore, their goal is to alleviate poverty by creating employment opportunities. This together with reinvesting 10 percent of the carbon offset revenues in the local communities and 100 percent in the country they are generated in. They believe that forestry is the answer to several problems, and believe that their work can halt deforestation and have greater sustainable development benefits than traditional development aid (GR 2009).

For the purpose of this study, I have focused on three of their main plantations in the Southern Highlands of Tanzania. These plantations are managed by GR's subsidiary in Tanzania, Green Recourses Ltd (in the following GRL), that was formerly known as Escarpment Forestry Company Ltd before they changed name in 2001. In this area they have more than 100,000 ha of land at various stages of the acquisition process, of which 34,000 ha have already received title and 7,900 ha has been planted. In addition to these three plantations, trial planting has started in Kitete, Taweta and Masagati. However, as I have understood when talking to representatives of the company, these three areas will be permanent plantations when titles have been received.

6.5.1 Idete Forest Plantation (IFP)

IFP is found in the Mufindi District, Iringa region, 110 km (3-4 hours by car) from the main tarmac road in Mafinga. From my understanding the area has been in the ownership of GR since 1997 through its subsidiary Escarpment Forest Company Ltd, but after the name change to GRL more land was acquired around 2000. IFP is the youngest of the tree plantations and was formally started in 2001 when GRL was incorporated, but it was first in 2006 that the first plantings were started. The plantation covers a total of 14,176 ha of land, which they received titles for in 2009. This land is contributed by Idete and Makungu village, and in addition, 1400 ha is from Uchindile village, which by accident have been included in the plantation due to poor mapping. This was discovered when the company made a land-use plan recently for Uchindile FP. Out of the total area 9,010 ha is plantable, while 3,498 ha is set aside for conservation and 1,668 ha for other uses. The objective of IFP is to grow trees

for carbon sequestration and to harvest forestry products for sawn timber, utility poles and renewable energy. There is a potential for a future pulp mill or a pellet factory in the Southern Highlands/Kilombero valley and the pulp wood from Idete and Uchindile would be well suited to providing feedstock for such a mill, or to satisfy expanded demand from Mufindi Paper Mills. In 2008, 806 ha of net new forest were established, taking the total established plantation to 1,204 ha. Of this, 59% were eucalyptus species including *eucalyptus grandis*, *eucalyptus saligna* and *eucalyptus camadulensis*, and 40% are *pinus patula* and *pinus elliotii*. In 2009, a further 926 ha were planted. The land is situated at an altitude between 1,100m and 1,550m with mean annual rainfall approximately 1,050mm with the rainy season from November to May, and the mean annual temperature is 16^{O}C. The forest is seeking CDM certification and is in the process of responding to corrective action requests (CARs) to the project design document (PDD), expecting full certification before the end of 2009. However, to my knowledge such a certification is still not obtained (May 2010). The carbon credits (tCERs) generated from the project have been sold and bought by amongst others the Norwegian Government, but the deal will not be realized before approval is obtained. The credits are now pending approval by the UNFCCC, putting in place a basis for aggressive expansion of the project. Pre-evaluation for FSC has taken place and progress continues towards full certification.

6.5.2 Mapanda Forest Plantation (MFP)

MFP is also in Mufindi District, Iringa region, 130 km (5-9 hours by car) from the main tarmac road at Mafinga, in the north of Idete. The plantation covers 6,258 ha of land, which they received titles for in 2003/2004. Out of the total area, 3,536 ha are plantable, with 753 ha set aside for conservation and 1,948 ha for other use. The land is contributed by Mapanda and Chogo village. In 2008, 409 ha of new forest were established, bringing the net established plantation area to 1,908 ha. The main species are *pinus patula* (72%) and *eucalyptus grandis* and *saligna* (27%). In 2009, 568 ha of pine were planted. The aim of Mapanda is to grow trees for carbon sequestration as well as to harvest wood for sawn timber, transmission poles and renewable energy. Alongside Uchindile, FSC certification for the project was attained on 8 August 2008 and voluntary carbon standard (VCS) certification was achieved on 17 July 2009. The company had initially applied for CDM certification using

approved CDM AR methodology along with Uchindile, but didn't pass the additionality test due to establishment of forests before 2000. The land lies at an altitude of 1,400m-1,760m with the mean temperature 14^{o}C, and average annual rainfall is 1,050mm with the rainy season from December to April.

6.5.3 Uchindile Forest Plantation (UFP)

UFP is located in the Kilombero district of the Morogoro region in Tanzania, and it is 70km (2 hours by car) from the main tarmac road in Mafinga. Uchindile covers an area of 12,121 ha, which was contributed by Uchindile and Kitete village and titles were received in 2003. In addition, GRL recently applied for more land from Uchindile for a second plantation bringing the total land area up to 21,000 ha just from Uchindile village. This is approved by the VC, but is waiting for approval from higher authorities. Out of the total area of 12,121 ha, 7,252 ha of the land are plantable, and 1,700 ha are set aside for conservation, with 3,161 ha for other uses. About 184 ha of eucalyptus were planted during 1996 and 1999, which are being harvested at the moment, creating the first major income for the plantation. In 2008, 500 ha of new forest were established taking the plantation to 2,830 ha of planted forest of which 44% are pine and 55% are eucalyptus. In the first half of 2009 another 336 ha were planted, however a large fire hit the plantation in late November 2009 and large parts of the forest were lost. The objective of Uchindile is to grow trees for carbon sequestration and to harvest forest products for sawn timber, transmission poles and renewable energy. FSC certification was attained on 8 August 2008 and VCS certification was achieved on 17 July 2009 along with MFP.

7 Research Methods and Design

7.1 Methodology

The research strategy adopted in this thesis is qualitative. The reason for this is my focus on discourses and narratives, and my wish to collect accounts of individuals own personal experiences, and the way people tell about their experiences of other actors and their general perceptions about the case. Since qualitative research emphasizes "on words rather than quantification", and has a "preference for the ways in which individuals interpret their social world" (Bryman 2004:20), I find a qualitative approach most appropriate. Furthermore, the ontological position taken in this study, which is common for qualitative research and typically taken by political ecologists, is the one of constructivism. This means that in this study I regard the nature of social entities as socially constructed rather than objective entities, implying that "reality" cannot be seen separate from the actors and individuals who perceives it and takes part in its construction (Bryman 2004; Robbins 2004). Therefore, the accounts collected in this study are the ones of the individuals own socially constructed interpretations of "reality".

Moreover, in line with the research strategy and in agreement with the ontological position of constructivism, the epistemological view taken in this study is known as critical realism. Epistemology is concerned with the 'theory of knowledge', how we know what we know and what is acceptable knowledge within a discipline. Considering the view of critical realism it suggests a search for underlying mechanisms based on the assumption that subjective meanings and perceptions of the world is "real" and not just a social construction, and research taking this view is aiming at revealing these interpretations and meanings (Bryman 2004). As such, these positions and views are in my opinion in agreement with the conceptual approach applied in this thesis. Because as mentioned earlier, political ecologists "seek to show how ideas and narratives about nature and society are mobilized in the environmental struggle" (Robbins 2004:116), however, without "dethroning" all that is real.

In addition, is the position one takes in the view of the nature of the relationship between theory and social research, which separates between two different ways; deductive reasoning, which represents the most common view where theory guides the research, and second; inductive reasoning, where theory is an outcome of research. It is difficult to perform a study without any previous knowledge of other theories and studies, and both will therefore entail elements of each other, implying the use of both inductive- and deductive reasoning (Bryman 2004). In this way the theoretical assumptions in political ecology and other theories on such projects have influenced me and my study in its initial phases, however being aware of this allowing for a more transparent reasoning.

Based on these considerations, data collection and –analysis were done simultaneously in the field. Because as I gathered information and gained insight, I discovered new and interesting aspects, which I had not earlier considered and which I found important. Therefore, I had to analyze my findings as I went on to be able to collect the relevant data. This is also the reason why I chose open or semi-structured interview guides enabling me to focus on new and important things as they were revealed to me as I moved on.

7.2 Design

Research design is "a framework for collecting and analyzing data" (Bryman 2004:27), and within the field of environment and development there are several to choose from. For the purpose of this study I adopt a case study design. The reason for this is that my research will entail an in depth study to understand the complex issues and experiences around a particular case. Furthermore, the characteristics of a case study "entail a detailed and intensive analysis of a single case" (Bryman 2004:48). In spite of this, it is important to notice that a case study can also entail several cases, but for the purpose of this study I will focus on one case. However, by selecting Green Resources forest plantation in the Southern highlands of Tanzania I choose to look at CDM- or carbon sequestration projects limited to a geographical area and type (forestry), thus, including some aspects as well as excluding others. This is important to note because one cannot generalize empirical data from a case study, the findings are limited to the case itself or types of cases. Nevertheless, it is possible to make the findings relevant to theory, or what Robert K. Yin (2009) call theoretical

generalization. Yin (2009) argue that one of the goals with case studies is to expand and generalize theories and not to enumerate frequencies. Thus, generalizeability in a case study design "is rather about the quality of the theoretical analysis that is allowed by investigating one or few cases, and how well theory can be generated and tested, using inductive and deductive reasoning" (Walliman 2006:45-46). Therefore, even if this study represents one case the results and findings regarding success and failures can prove as valuable learning lessons for CDM projects in other locations as the instrument is designed to work for all developing countries that have ratified the Kyoto Protocol alongside similar projects that are not seeking CDM certification, but have the same goals.

7.3 Data Collection

Data collection refers to the process of preparing and gathering information related to the case that is studied. It can be divided into two; primary data, which is information gathered by yourself through for instance interviews and questionnaires, and second; secondary data, which is information gathered from other sources (Bryman 2004). Due to the research strategy, methods and design of this study, data collected was predominantly primary data. There are several methods for collecting primary data, but for the purpose of this study I collected data through semi-structured interviews, focus group discussions, life history interviews, observations and more informal conversations. For the collection of secondary data I have used the internet, articles, reports, books, brochures and other documents where possible and of interest to this case.

The reason why I chose these methods of collecting primary data is that I believe that it fits my objectives and research questions of collecting the accounts of peoples own perceptions and interpretations of the case. Semi-structured interviews is therefore perfect as they consist of both standardized questions as well as a more flexible format, ultimately leading to more open interviews, which allows the interviewees to come with their own reflections without necessarily having to ask for them (Walliman 2006). I therefore used an interview guide (see appendixes 1-6) for the different stakeholders to cover some themes and questions, but at the same time this opened to follow up on answers and stories told by my respondents (Kvale 1996).

However, most of these interviews were conducted in focus groups of 4-11 participants. Simply because of the convenience, but also to understand the collective perception about this case. The themes and questions were raised to the group allowing all to participate, discuss with each other and answer. In spite of this, there are quite a few challenges with focus groups such as dominant speakers, gender issues, etc., but I was aware of these issues and tried to design groups in the best possible way to overcome this (Bryman 2004). I also collected data through life history interviews by asking particularly elders to recall the history of the village and the area. At least one elder from each village was interviewed to understand the historical background of the area. In addition, I also asked others and younger people to do the same to see if there were any differences. This made me understand how life was before and after Green Resources interventions, and the historical background of the area.

Since I stayed in the villages for longer periods, I naturally participated in some of the daily local life and was able to gain information that contributed to my general understanding of life in the villages. As such, this form of observations became an important tool alongside the interviews and focus groups. Engaging in and listening to informal conversations, catching comments, observing behavior and how people interacted helped me to confirm conflicting information and claims. This further enabled me to follow up when interviewing the company, comparing claims in documents, validating information or in general interviews and focus groups in the villages. However, at times it was difficult to determine who was telling the truth or not.

To collect the primary data for this study I spent about 2.5 months in the field between early October 2009 and mid-December 2009. Most of the time was spent in and around the three forest plantations, but also visiting the District Council and organizations in Mafinga and Ifakara, as well as in Dar es Salaam. Before going to the case study site I spent some days in Dar es Salaam to gather information that could help me later in the process. Reaching the Southern Highlands I had a base in Mafinga and when going to the forest plantations I spent about 4-10 days in each plantation visiting the particular villages with some revisits later. Due to a huge fire in one of the plantations I had to wait a week or so before visiting the

third and last plantation, and therefore used the time to visit some organizations and the DC in Mafinga, as well as additional interviews in Dar es Salaam.

In total I did about 50 interviews in the six different villages reaching about 150-200 residents. In addition, I interviewed workers and other key persons in Green Resources. But also other non-locals and external actors such as, district government, NGO's and other key organizations in Dar es Salaam. I also spoke with and interviewed some key persons from Point Carbon and Green Resources in Oslo before and after the field visit. Most of the interviews were recorded with a tape recorder. In some of the cases the interviewees did not wish to be recorded. This was due to various reasons depending on their involvement, while other times the interviews were more characterized as private conversations where I needed to gain trust in order to receive information, and where a tape recorder could have had a negative influence.

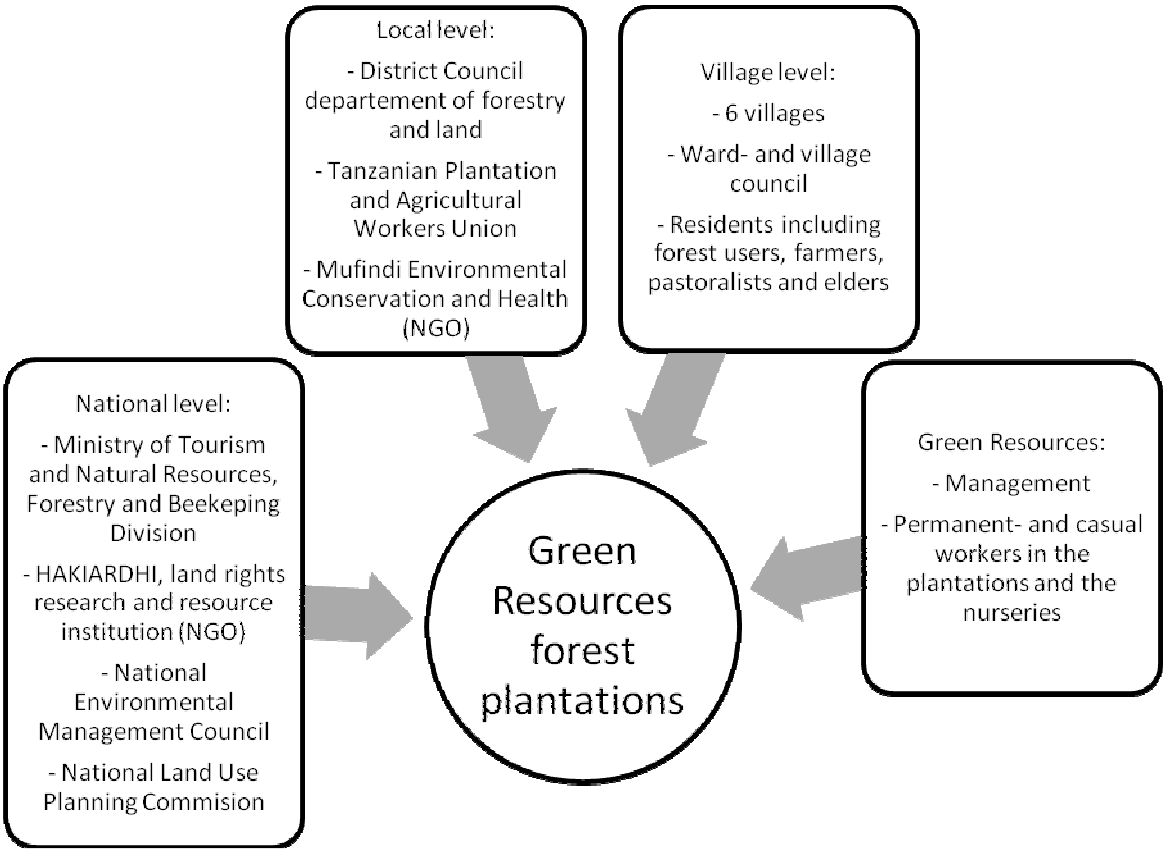
In the villages the knowledge of English was not good and the interviews had to be conducted in Swahili, which therefore required an interpreter. It was difficult to find someone that could stay with me all the time since my schedule changed continuously. Hence, I found it simplest and best to use locals in the villages or others who had knowledge of English. In most of the field visits I used a young man as an interpreter. He was 24 years old and had a Bachelor in Business Administration from Mzumbe University in Morogoro. He had good knowledge of English and the area in general as he lived with his brother in Mafinga. In addition, I used a doctor and the head teacher of a primary school as interpreters. The disadvantage by using un-skilled interpreters is that they are not used to it and has to be taught along the way. The advantages although exceeded the disadvantages in the way that they knew the community, who to talk to and how to go about. During all the interviews, I took notes to highlight different topics of interest that were discussed, the recorded interviews have not been transcribed, but listened to afterwards at several occasions to identify common topics and other elements of interest.

7.3.1 Sampling and data collection techniques

In the initial phase of this study and as a part of preparing for the fieldwork I performed a stakeholder analysis from local- to national level to identify who of to talk with and interview

(see figure 7). There are of course several stakeholders beyond this analysis who holds interests and power in a project such as this, direct and indirect, internally and externally, but which the time scope of this study cannot comprehend. However, the respondent- or stakeholder groups shown in the figure below represents some of the key actors that I wanted to interview for the collection of primary data[22].

Figure 6: Stakeholders relevant to Green Resources forest plantations



In my first trip to the case study area I visited Green Resources Ltd's (in the following "GRL") local office in Mafinga, Sao Hill. The reason for this was that I needed more information about the area, the plantations and the villages. I was able to meet and interview some of the officers from different departments, but most importantly I met the Managing Director (MD) of GRL Mr. Sangito Sumari. He provided me with valuable information, which served as an overview. I was explained that ten villages were benefiting from the project, indirectly

[22] Note that the list of actors in the stakeholder analysis is somewhat revised from the initial as new information was reviled throughout the research, thus some new actors emerged and some old found irrelevant.

and directly, but that six of the villages (Idete, Makungu, Mapanda, Chogo, Uchindile and Kitete) were directly involved in contributing land to the three plantations. Thus I chose to study the six villages. The choice of which village to visit first and last happened randomly as transportation and accommodation were available.

Overall, the sampling method used in this study is non-probability sampling, meaning that some of the members of the different stakeholder groups had greater chance of being selected than others (Bryman 2004). There are several types of non-probability sampling to choose from, but the one applied here is snowball sampling. This method means randomly identifying individuals to start with from each selected group of actors and who then can help in identifying other individuals that may be relevant (Svarstad 2008). The reason why I chose this type of method is that I did not have enough information about the different stakeholder groups to make a probability sampling, and a key to get the right information in Tanzania is through contacts, which I did not have before I came. In general, for all the stakeholder groups I conducted interviews until I judged that no new information came out. This is often referred to as theoretical saturation (Bryman 2004).

Regarding sampling size in the villages I tried to reach 5-10% of the households, as well as parts of the ward- and village council in each village. Through my interpreter or key informant in the different villages I expressed a wish of reaching a diversified sample of respondents based on location, gender, age, and working status, which resembles a quota sampling. This often meant that my first day in a new village started with interviews of members of the village council such as the Village Executive Officer (VEO) and Chairman, or others that could help me with information and gather people. After introducing myself to the village and my key informant had helped me gather people based on my criteria, interviews where held at different locations and based on availability. However, the majority of the interviews were held in focus groups in central locations in the village, but also through home visits, out in the field or simply by the roadside.

7.4 Data Analysis

I analyzed my data more or less simultaneously as I collected them. The reason for this was that by analyzing along the way I was able to discover new or more important issues that I

had not earlier considered and that I was able to follow up. This continuous evaluation of questions, methods, data and theory can resemble a grounded theory approach to the data analysis. Bryman (2004:401) defines grounded theory as “theory that has derived from data, systematically gathered and analyzed through the research process”, meaning that the data and the analysis “proceed in tandem, repeatedly referring back to each other.” In addition, due to the qualitative approach of collecting data the emphasis will be on words rather than numbers and since words are subject to a much wider possible spectrum of analysis than numbers it is necessary to intertwine the different stages of the research process, and not separate them.

Moreover, after leaving the field, I have continued to analyze my data by looking for common elements and categories found in the different interviews. This can resemble typical coding, which is one of the key processes in grounded theory “whereby data are broken down into component parts, which are given names, starting soon after the collection of the initial data”(Bryman 2004:401). Even so, I have not been that strict with my data and the analysis can rather be regarded as a qualitative content analysis of the all the interviews collected. The idea with this type of analysis is to look for different categories in the interviews, comparing them with each other and try to understand their significance and meaning to find a pattern (Bryman 2004).

I have also used a narrative analysis, which allows me not only to look for what has been said, but also how and by whom. According to Adger et al. (2001), whose understanding of narratives I have adopted, narrative analysis implies an examination of how actors produce and reproduce different stories regarding a particular case. Therefore, when looking for different categories in the content of the interviews I have also tried to look for regularities of expression within them and who the actors producing them are. This further allows me to compare these findings with narratives produced on a national and global level to show how and if these narratives in the local social and political sphere fit in with the global.

Lastly, I have also used a human-rights based approach for analyzing my data by applying the minimum human-rights principles to large-scale land acquisitions and leases established by Olivier De Schutter (2009). They were just recently published and have not been applied by

neither the Tanzanian Government, nor Green Resources, during the negotiations of land in the Southern Highlands. Nevertheless, I find the principles as a valuable framework for analysing my data regarding Green Resources and their involvement in the local communities from a more ethical point of view.

7.5 Challenges to qualitative research and ethical considerations

Whenever doing research, and especially qualitative research, one is met with several challenges. Not only those regarding qualitative research projects in general, but also the practical challenges in the field.

In general, the main criticism of qualitative research is the subjective character of the collected data. The researcher should not be biased and influenced by own feelings or opinions. This can be difficult in qualitative research, as the findings naturally will be influenced by the perceptions and understandings of the researcher. Another critique is the one of generalization, which I briefly mentioned earlier in the section about research design. Nevertheless, Guba and Lincoln (in Bryman 2004), have suggested an alternative to reliability, replicability and validity in quantitative research for assessing qualitative research; namely *trustworthiness* and *authenticity*. They suggest that by following good practice in research (credibility); ensuring that the findings hold in other contexts (transferability); keeping detailed records of the phases in the research process (dependability); and acting in good faith (confirmability) will ensure the trustworthiness of the research. In addition, by ensuring to represent all the members of a social setting (fairness); give the members a better understanding of their social setting and each other (ontological- and educative authenticity); and by empowering the members acting as a driving force to action for change (tactical- and catalytic authenticity) also the authenticity of the research can be ensured.

Due to this I always tried to keep these considerations in mind for the transparency of this study. Nevertheless, it could be difficult at times when I saw the impacts I had on the local communities. They had faith in me, and hoped and believed that I had the power and influence over the company to bring about the changes they wished for. However, these emotions were easily recognized ensuring that they did not influence me. On the other

hand, my presence may have influenced them and thus the data collected. In spite of this, being aware and following these guidelines during my research should assure the quality.

In addition, I met a range of practical challenges that limited my research, in particular transportation. I visited remote areas and the roads were in bad condition, therefore I was dependent on a good car. I could not afford to hire one of my own, so I was dependent on Green Resources and their cars. I had to rely on them whenever some of them were going to the plantations. Hence, since I was dependent on the company's resources, transport and accommodation, I was several times questioned by the villagers if I worked for the company. This made them hesitant in some cases to talk to me. I was open about this situation, but it might have influenced and biased some of the data gathered. In particularly one of the villages, the plantation manager had to arrange the first meeting with the VC. However, my interpreter and I were explicit in explaining in each interview that I had no connection to the company, and that I like them were dependent on the company's transportation. It seemed like they understood and I felt they trusted me. In addition, since I was dependent on Green Resources help, it also affected the amount of time I had available to interview and to collect data. Two and a half months is not a lot of time to fully understand the complex issues of a case such as this.

Furthermore, language was another challenge. The use of an interpreter in general can pose as a possible source of error and misunderstanding, hence the phrase "lost in translation". Since my focus is on narratives the particular way people tell their stories are of great importance, and an interpreter is not able to translate 100 percent of what a person has said. In addition, during some of the focus groups the participants sometimes talked among themselves while my interpreter was translating to me. At this point they may have said something of importance to my study, but which I did not get and understand. I tried my best to explain this and make them retell what they said, but this was not always simple. My understanding of Swahili was slowly improving and I was able to abstract some parts of the conversations that I could ask my translator to follow up on, but most of the time I had to rely on my interpreter.

8 Sustainable Development or Exploitation?

Based on the theoretical considerations outlined in the previous chapters, this chapter will describe and discuss the findings and results from the fieldwork by amongst others referring to the minimum human-rights principles applicable to large-scale land acquisitions and leases. The chapter is structured according to the objectives of the thesis laid out in chapter 1. It will first present the findings about the historical and present land-tenure system in the area. How people use land today, as well as a discussion on the challenges regarding this in the context of GRLs plantations. Next, the findings regarding GRLs impacts on local people's access to resources and social and economic development will be presented, both from a local and district level perspective and the company's own view. Lastly, I will attempt to look at how the different actors' narratives about these projects fit in with national and global discourses and narratives about carbon sequestration projects.

8.1 Historical and Present Use of Land

Previous and existing literature of the economic liberalization in Tanzania has expressed concern about opening for more foreign private investments, especially in land, and the possible impacts this may have on local livelihoods (Cotula et.al. 2009; Izumi 1998; Maganga 2003; Odgaard 2003; Shivji 1998; Stave 2000; Sulle & Nelson 2009). For that reason, I wished to identify and analyze the present use of land compared to the historical use. I also wished to find out if Green Resources investments had any impacts on local use of land and if so, to what extent and degree. The historical and present land tenure system in Tanzania was described under section 6.4, and as evident, most village land is governed by customary laws. Meaning land that is held "under custom through long occupation and usage, which is recognized by the community or neighbourhood where the land is situated"(Shivji 1998:57). However, the section does not describe the use of land, but rather the legal framework in which village land is governed. In order to obtain data on that matter, village leaders and residents, district governments and other actors involved were asked about the historical and present use of land and the tenure system in the area.

Historically, all of the areas I visited had much more forests and wild animals than presently, and hunting was a natural part of their living. In the last fifty years there has been a decline in both forests and animals. This is due to increased population, but also due to the villagisation in the mid 1970s. Villagers were told to clear land for agriculture and to build houses, which increased deforestation and ultimately lead to the outmigration of wild animals. In addition, farmers have normally practised shifting cultivation in the area and have had easy access to new land for agriculture and livestock keeping, but due to private investments in the areas, access to new land is more constrained. Or in the words of one of the villagers in Makungu:

"Before 1980, since there were few people living here, people practised shifting cultivation. But now, you can't see this type of farming because there is a shortage of land. The shortage of land is caused by these investors who come to this area." (Interview with village elder in Makungu 28.10.09)

This shows that population growth combined with increased investments in land has created shortages in land, which may become a problem in the future. Population growth is a typical neo-Malthusian and apolitical explanation for land scarcity in the developing world. However, policies implemented by the Tanzanian government during the economic liberalization in the 1980s have allowed for such exploitations in land. Thus, by looking at the recent political history of Tanzania, we can see that population growth is not necessarily the main and dominant factor causing shortage in land. In addition, the population in the six villages in question has grown due to these investments as they have created new employment opportunities, directly and indirectly. Hence, the villages may have experienced a high population growth just as the investments started, but which will stabilize when the years pass. However, some women in Idete remarked that they used their land in a better and more effective way now because they were able to sell more of their crops. This creates a dilemma, because without the investments people may have moved out of the villages to seek other employment as farming in the area is difficult, but with them they create restrictions and shortage of land that may create conflicts and compromise future generations.

It is important to note however, that GRL is not the only investor in the area. Mufindi Paper Mill (MPM), a large Tanzanian private investor, also uses large tracts of land for its paper production. MPM mostly uses trees from the Sao Hill government forest, but they are expanding productions and have applied for more land, amongst others an area of almost 11,000 ha in Uchindile village (see map in appendix 9-10). Furthermore, Mufindi District is also known for its tea plantations, which also use much land for its productions. In addition, the villages are also encouraged to plant more trees and to establish their own "plantations". In total, this takes up large tracts of land, which apparently has affected the villagers. Thus, from there the process started to unfold and a further interest in how these investments and plantations affected them led the way forward. An account regarding this is as in the following:

"Before, when land was available we could cultivate everywhere, but now you have to own land and only cultivate there. To acquire land you have to go to the clan leaders in your clan, often the elders, and ask for land. But after villagisation in 1974, you have to consult the VC if you want to acquire land. When GRL acquired land from our village we were not consulted, they talked to the VC and we were just informed later. The land they obtained we used to keep our livestock, but now we are prohibited to pass through there and that is a problem. If we were consulted we would have told the VC to give them another piece of land because the land they have got is crucial to us and closer to our homes." (Focus group with elder men in Makungu 27.10.09)

This account I heard in all of the villages except one (Chogo), that the village assembly had not been summoned and consulted in advance, but just informed later. Thus, this became my next concern as I began to realise that the involvement of the residents in the decision making process was little to none. When I asked the villagers why they thought the VCs took the decision without consulting them, another in the same village (Makungu) told me that they could not have intervened, but they could have given them better recommendations on which land to give. Nevertheless, they showed understanding for the VCs decision as it was based on the benefits that would accrue from the promises made by GRL in return for the land. However, it is important to note that the Village Council themselves did not have any

decision making power as all of the land obtained was negotiated before the new Village Land Act of 1999, which was put into force in 2001. This means when GRL acquired land in 1997, the Government was the acting land managers of village land. A role the village council's took over after 2001. Thus, even if the Village Council was consulted, they had no formal power other than maybe coming with comments and recommendations.

Recollecting the minimum human-rights principles applicable to large-scale land acquisitions and leases, the first principle is concerned with ensuring the transparency and the participation of local communities in the negotiations of allocating land. To my knowledge, and understanding, the negotiation process has been transparent in terms of proper documentation, and following rules, laws and regulations of the current time. However, as can be seen from the above, there has been a lack of transparency and participation in regards of the local communities. The village council's have ceded large areas of land in return for vague promises, which I will come back to later, without the informed consent of the villagers.

This is also against the second principle, which is concerned with the informed consent of the local communities and evictions. This principle is to ensure that indigenous groups are not marginalized and discriminated. Due to the lack of informed consent, land that has been closer and better for the villagers, have been ceded to the company. Fortunately, this has not revealed any major problems yet, but may become an issue in the future. Regarding evictions, there is only one case of this to my knowledge, and those who had to move were adequately compensated and were offered alternative resettlement. Additionally, there are no pastoralists in the area to my knowledge, thus, this has not been a problem.

In addition, according to principle nine, an impact assessment should be done prior to the negotiations and in a participatory fashion to ensure that the benefits will be shared equitably. I have no knowledge if such an assessment was conducted prior to the negotiations. However, the company undergo several and different assessments all the time since they subscribe to different standards that are reviewed each year. In addition, an environmental impact assessment is done regularly by the National Environment Management Council (NEMC), which also includes human dimensions. In this way they also

address principle six, which is concerned with the environmental aspects of such investments. In this way the principles acts as a minimum safeguard of human-rights, and should not be considered as a substitute to other guidelines, or competing with such. However, the principles are not optional as the follow from existing international human-rights norms. Hence, in the continuation and future projects, these principles should be considered.

Furthermore, at the time of acquiring land (1997), land-use plans were not a prerequisite. In fact, Idete Village Council had agreed on giving the company 30,000 ha of land, but which the Mufindi District Council found too much and decided of less than the half. However, according to accounts of the villagers in Idete and further confirmed by the District Land Officer in Mufindi, the company got an additional 2500 ha in Idete from late General Luhanga who was the regional commissioner in Iringa. I do not know if the General or his descendants received any money for this, and I have not been able to confirm this with the company, but concerns were raised by the villagers in Idete over this land and whether it was legal. Regarding lack of land-use plans, somebody remarked:

"Since the village council didn't provide for a certain land-use plan, showing that this land is for investors and this for indigenous people living here, we now see that there is a random use of land. Due to the lack of this, in the long-run this can lead to conflicts." (Interview with village elder in Makungu 28.10.09)

Regarding the third and tenth principle, the State and their responsibility of protecting individuals and local communities, we can see that at the time Green Resources acquired land there was a lack of laws addressing this. This has fortunately been recognized by the Tanzanian government, hence the Land-Use Planning Act from 2007. In addition, since the Village Councils now act as Land Managers of village land, it also shows the importance of training and knowledge building to enable them to make the right decisions. That Idete village was willing to give the company 30,000 ha of their total 50,000 ha reflects a lack of knowledge in both the scale of size and the implications this may have on the livelihood of the villagers. Also, criteria for giving land must be modified. I am unsure of the actual criteria that are used today, other than that you need a land-use plan and that the village needs to

keep 2/3 for themselves. Previously, the District Councils considered the village's requirements of land for the next 20 years before giving their approval and recommendations to the government. This despite of the fact that most leases lasts for 33, 66 or 99 years. However, the land that GRL obtained has already been turned into general land and the company has received COOs with a lease agreement for 99 years, which cannot be withdrawn. Thus it is important that the company keep their promises to avoid conflicts in order to secure the livelihood of the rural households.

8.1.1 Current and Future Land Use

Before I continue the presentation of the findings and discussion of this study, I find it relevant to review the current and future use of land in the six villages I visited. The following is the current use of land according to numbers obtained from the village council's, Green Resources and the National Population and Housing Census in Tanzania[23]:

Table 2: Current land use in the six villages

Village	Population	Men	Women	Total area	GR	Other uses	Area left	In %
Idete	3 094	1 536	1 558	49 875	14 176		35 699	72 %
Makungu	5 585	2 773	2 812					
Mapanda	3 969	1 824	2 145	13 984	1 606		12 378	89 %
Chogo	909	398	511	30 268	4 658		25 610	85 %
Uchindile	1 034	521	513	53 154	20 931	16 969	15 254	29 %
Kitete	595	308	287	25 658	12 514	8 805	4 339	17 %

(Sources: GRAS 2010; URT 2002)

As can be seen from the table above there are some numbers missing. The reason for this is that at current time there does not exist any land-use plans for the four first villages in the table. Such plans are not needed at current time since titles for the land has already been obtained, and the land was acquired before there were any laws requiring this. For Makungu, I have not been able to retrieve any figures, but I know that parts of the 14 176 ha of Idete Forest Plantation is land allocated from Makungu. Thus, the numbers regarding Idete is not entirely right. In addition, I know that Makungu is surrounded by the Sao Hill government forest, and cannot imagine they have much left for own use. The same issues

[23] Land-use plans are appended in appendix 9 and 10

are with Mapanda and Chogo. The village size and the lands Green Resources have are right. However, I have no accounts if there is someone else who has land there. Another issue regarding these four villages is that I do not have any accounts of how much the villages themselves use of the land. Hence, the percentage is misleading and should not be emphasised.

Regarding Uchindile and Kitete, land-use plans are available. The reason for this is that Green Resources is applying for more land in these two villages, and according to the new Land Use Planning Act from 2007 land-use plans are required before allocating any land. This should be conducted by the National Land Use Planning Commission. However, this is very time consuming and expensive. Thus, private investors, or public for that matter, are encouraged to make the plans in order to assist the villages, and to comply with national goals and laws. In 1997, when the company first acquired land in the two villages, it was respectively 5000 ha from Uchindile and 2000 ha from Kitete. This can also be seen from the land-use plan appended in appendix 10 at the top of the map where it says UFP. Now the company has applied for an additional 14,700 ha in Uchindile and 10,600 ha in Kitete. In addition to this, the land-use plan in appendix 10 also shows the 1400 ha of forest from Idete Forest Plantation that mistakenly was planted on Uchindile land, as well as the 10, 500 ha of Mufindi Paper Mill's investments.

Taweta lands can also be seen in the land-use plan, but I will not put any emphasis on this. Rather, by looking at Uchindile and Kitete, we can see that both villages have ceded more than 1/3 of their land. I have not been able to find out if the rule regarding the villages to keep 2/3 of the land for themselves is a law or a guideline. However, law or guideline, the two villages are just left with respectively 29 and 17 percent for themselves and their future generations. By using the annual average growth rate between 1988 and 2002 in Tanzania of 1.5 percent (URT 2002), the two villages will have more than doubled in 50 years. That is half the time of the lease contract of 99 years. During that time, 99 years, both the villages will have almost five doubled if we continue to use the same growth rate. Today, Uchindile utilize about 12 percent of total village land for different purposes such as housing and agriculture. In 50 years they would need 12 percent more, and in 99 years they would need

an additionally 48 percent, but they have only 29 percent left. For Kitete the numbers are even worse. Today, Kitete village utilize about 34 percent of the total village land. In 50 years they would need 34 percent more, and in 99 years the village would need more land than it already have in total today.

Nevertheless, it is difficult to project the future and how future generations will use land. In addition, the growth rate will also probably stagnate, or at least stabilize, when there is a lack of land and employment opportunities. However, it is important to recognise these scenarios since Tanzania is one of the fastest growing economies in sub-Saharan Africa (Invest Dest 2009). In addition, as the national population grows, the demand for food will increase, thus, the demand for land.

8.2.1 Land for Development Assistance

As to my knowledge, there have not been any major conflicts concerning land in the area. There were some minor disagreements regarding some boundaries between Uchindile and Kitete during the acquisition of land in 1997, but it was solved peacefully and those affected by it were compensated. However, with land-use plans coming into place this will be avoided in the future as it will more clearly and formally state the boundaries. However, in Makungu there have been some riots against MPM, not due to land, but mainly because they have been inconsiderate to the locals and amongst other things destroyed roads and bridges that are of importance to them. Despite this, the villagers did not believe that there would be any conflicts with GRL in the near future as long as they kept their promises. However, GRL have been lagging behind in fulfilling their promises made during the acquisition, which was much of the reason for why they received land from the villages in the first place. Amongst other things, they have promised access to safe and reliable drinking water, construction of roads, schools and other public buildings, as well as providing employment and to give away tree seedlings. The latter has not been a problem, even if there has been some complaints regarding too little employment of local villagers, but the fulfilment of the other areas mentioned especially regarding drilling water have not been fulfilled.

In one of the oldest plantations, MFP, the work of fulfilling promises was first started in 2003-2004. This is almost six years after they obtained land in 1997, which to date are still

not fulfilled. When I asked the Village Council in Mapanda if they had a written contract over the promises I was told that no such document existed, there were some contracts, but no documents regarding the promises. This is an overarching problem in all of the villages involved in giving land to GRL. However, in Uchindile, where they also obtained land in 1997, they have a written contract from 2005 stating what the company is supposed to fulfil. They are the only ones with a written contract to my knowledge and the work of meeting this contract started in 2006, but it is still not fulfilled. Nonetheless, the company has applied for more land in Uchindile, but according to the Village Executive Officer this application will not be approved before they have fulfilled the promises made in 2005. Confusingly, when I talked to the Village Chairman in Uchindile, he told me that the application had been approved, and when asked why this was done before the fulfilment of the contract, he just said that it was part of another deal. I have not been able to get a clear answer to this and have to assume that the land-use plans in appendix 9 and 10 are valid and that the land application is under approval by either district- or national government.

Without contracts it makes it difficult, or almost impossible, for the villagers to demand anything as the promises were only made orally and not written. When the company was at a later stage asked about these issues, they admitted they had been slow in fulfilling their promises, but that this was due to the low economic performance of the company in the start up. Since the company started to perform better they have been able to start some of the projects they have promised, and are trying their best to fulfil these. Amongst other things, they have built several classrooms in the various villages, constructed new roads and bridges (however, mainly around the plantations), provided the youth with sports gear and building materials to maintain various public buildings. In addition, company representatives also added, that since 2007 they changed their approach for giving community support as they saw that much of the material they provided was “stolen”. Now they are not only providing the villages with materials, but also use company employees in community projects “to ensure that they are properly completed and that funds are spent effectively” (GR 2009:35). Nevertheless, as today, they have not provided the villages with safe drinking water, something that has been a top priority by the villages, which the company insists that the villagers set themselves. In addition, they wrote in their latest annual report that

assisting villagers with safe and reliable drilling water is something they have done, but the only drilling water point I saw on my field visits was next to the staff houses in Uchindile.

Furthermore, Green Resources are explicit in their company report about the way revenues and profits are to be used. 100 percent of the revenues generated by Green Resources carbon credits will be reinvested in the countries where the credits were generated" (GR 2009:4). In addition, they guarantee that from the sale of carbon credits 10 percent of "the gross revenues are invested in community projects and that all of the proceeds are invested in the local economy" (GR 2009:35). The money will not be given as cash, but used to meet community needs and projects. However, I find this a bit troubling, because this money will be used to fulfil promises that were made a long time ago and should have been fulfilled already. Instead, this "new" money goes to the fulfilment of old promises. In addition, no transparent plan is made on how much each village can expect to receive and what it should be spent on including the costs. This has created confusion and some conflicts as the villagers were told about this a couple of years ago without seeing anything of it. The reason for this is that the process of certifying the plantations and actually selling the carbon credits takes a long time. The villagers have not been informed of this process and are very disappointed by the progress. This has further created an embittered atmosphere where the villagers have started to question the legitimacy of the company. This is bad news for the company as they are depending on the support of the local communities, especially in case of fires in the plantations, but also for employment. To quote one of the employees in GRL: "If we don't keep our promises or respect the locals, they will burn our forests."

The fourth principle, regarding the minimum human-rights principles applicable to large-scale land acquisitions and leases, addresses the benefits the local communities should be entitled to from such investments. Green Resources has addressed this issue by deciding to give the local communities 10 percent of the revenues from sale of carbon credits to community projects. This is in addition to the general promises they have given when they acquired the land. In addition to this, they provide employment opportunities, which present the local communities with a living wage they did not have before. However, there have

been some issues in this regard, which is necessary to be addressed to ensure that the help the local communities are receiving is sustainable.

In line with principle seven, clear and specific contracts should be written to ensure that the benefits of the local communities are secured. This is something that has been lacking, thus the villagers have not had anything to relay on to ensure the accountability of the company. The company should make new contracts in participation with the local communities, which defines the obligations in clear terms. Not only in monetary terms, but also other verifiable commitments that is relevant to the long-term sustainability. The contract should also specify sanctions in case of non-compliance. Especially since Green Resources have received support from the IFC, who are bound by international human rights laws as a part of general international law, compliance with these principles should be conditional. In addition, since also the rents for land is very low, 500 tzs per hectare per year, ensuring the benefits of the local communities are even more important.

Moreover, regarding carbon revenues and use of land, forestry has become an attractive undertaking. The villagers are encouraged by the district government to have their own tree plantations. Each individual household should have 0.5 acre of forest in addition to a village plantation and their own food crops. The company supports this by providing free tree seedlings, and sees it as a positive development as villagers do not cut down their own or natural forests for fire wood. Furthermore, according to the Head of the Forestry Department in the Mufindi District, the government wishes for each district to plant 1.5 million trees per year in order to reforest deforested areas. This is about 8-900 ha of land just per year. He did not say for how long this plan is supposed to last, but in 2008 30 million seedlings, or 17,647 ha, was planted in the Mufindi District by individuals, companies and by the local and national government. For that reason, and due to the company's lack of fulfilments, more and more villages and individuals are interested in running their own plantations and selling carbon. However, some have recognized that this might become a problem. If people stop cultivating food crops and starting planting forests there could become a shortage of food. In addition, the plantations consist mainly of pine and

eucalyptus creating monoculture forests, which can have negative impacts on local biodiversity and ecosystems.

According to principle five, “investors should establish and promote farming systems that are sufficiently labor-intensive to contribute to employment creation”(De Schutter 2009:17). By focusing on agroforestry, the company could have helped the villagers increase the fertility of their crops by giving the locals trees such as *grevillea robusta* and educated them how to use it. In this way they would create a better environment for more sustainable agriculture, reinforcing local livelihood options and providing access to an alternative living wage for the local population, which is a key component of the human right to food and the long-term sustainability.

In conclusion, to be seen from this, the land tenure system in the area is as explained in section 6.4. Furthermore, the historical and present use of land has changed dramatically, but has mostly been affected by the different policies implemented by the Tanzanian government. The economic liberalization and a wish to be integrated with the global capitalist market are reflected in the policies implemented by the Tanzania government, which have opened for rich Tanzanians and foreigners to acquire land. Due to the lack of knowledge and communication, as well as a lack of land-use plans, land that has value for the villagers has been allocated to GRL. This has affected them as they are now restricted from areas that earlier have been in use, and left them with less land for their future generations to cultivate. Moreover, due to the lack of fulfilment of promises combined with a lack of communication this can lead to conflicts in the future which may affect the company’s carbon “storage.” Lastly, and of greatest concern, is that in general the villagers themselves do not seem particularly worried about the shortage of land. They are worried about what they can benefit or not from allocating and leasing out their land to foreign investors.

8.2 Impacts on Social and Economic Development

It is a common perception that Tanzania is rich on natural resources and land, thus it is an attractive sector for foreign private investors. The goals of a liberalized economy in Tanzania are to secure social and economic benefits for its inhabitants. However, as witnessed above,

it has also opened for exploitations and projects that may have severe effects on the future livelihood of rural Tanzania. Sustainable development is one of the dual goals of the CDM, but it is also recognised that the CDM is part of the explanation for increased demand for land in the developing countries (De Schutter 2009). Since GRL have used approved CDM Methodology to get certification for its plantation in order to sell carbon credits, meeting sustainable development goals is an important aspect. Thus the following are my findings and discussions regarding GRLs impacts on the local social and economic development, and as the former objective has implications on the second, also the findings on the impacts of local people's access to resources will be discussed.

The main income generating activity for the inhabitants of the six villages I visited is cash crops. However, as can be seen from the plantation profiles, all of the six villages are situated in quite remote areas and do not have many people or traffic passing through their villages. Makungu is the only village that can be classified as a town with different shops, bars and markets, and which has fairly good access to transportation to other and bigger places. Therefore, for many of the villages, Makungu is the closest place where they sell their products. There are also other places, such as Makambako a town 45 km from Idete, or Ifakara for those living in Uchindile and Kitete. However, these places are further away and have no or bad roads and can therefore take days to reach by foot.

Nevertheless, since GRL started its operations, the farmers have been able to sell more of their crops and thus, produce more. The reason for this is that the residents in the villages who are employed in the company can afford to buy their products. It is also because they can get a ride with company cars to the markets, which enables them to sell their products there. In addition, they are also able to sell to people travelling through, or by selling it to people who takes it to the market for them. In total, this has also enabled them to sell for higher prices because of increased population and demand. Additionally, because access to transport and their economy is better, some has also been able to start up small shops and bars where they can sell washing bars, salt, sugar and drinks. This is a positive development because by providing employment directly and indirectly it strengthens the purchasing power of the inhabitants, thus increasing the economic productivity. Especially the women

are happy with this as also they have an opportunity to be employed. Most companies in the area only employ men, but GRL wants to give an equal opportunity to all, but also because they believe that women are more thorough and suited for the kind of labour they need.

Principle eight in the minimum human-rights principles applicable to large-scale land acquisitions and leases is concerned with food security and –productivity. The principle is most concerned with large-scale food plantations by foreign developers, but can also be applied to other types of plantations. To my knowledge the company has no such agreement to ensure that the food insecurity of the local communities will not increase. However, as I mentioned above, agricultural productivity and access to local markets have increased since Green Resources started their projects. This is due to an increased possibility to sell their agricultural products, and that access to transportation is better. In spite of this, such an agreement to secure local communities food security could be a good way towards making their projects more sustainable. The recent development can lead to higher food prices, and such an agreement would also ensure neighbouring communities.

However, by improving the network of roads, the access to new markets could even better. The company advertises on their homepage, as well as when I have talked to them, that they have built and maintained 100 km of road. When the villagers were asked about this they told me that most of the roads are in or around the plantations and not directly benefiting them. Amongst other things, the residents in Idete said that if the company where to build a road from Idete to Makambako, which is a town and a junction of the roads between Njombe, Iringa, and Mbeya, access to transport and markets to sell their products would be even better, but also the access to other employment opportunities. I have understood that such a road is planned and that it is a work in progress, but there are several bridges that have to be built in order to finish the road and which will take some time. In addition, a road from Mapanda to Mafinga is also under construction, which will make the distance shorter. These are important issues, because if the developments and benefits accrued by the company's presence are to be sustainable in the future, they have to contribute to community projects that will enhance their livelihoods in the long term.

Moreover, when asked about other benefits they had accrued from the company's presence, the most obvious changes were regarding living conditions. Many of the respondents in all of the villages, particularly the women, told me that they now could afford better housing and clothes, and that they were able to send their children to school both because they could afford it and because of better access. This was also something I witnessed. In the villages I visited, most houses were built out of bricks and had iron sheet roofing, while in other villages I passed along my way the houses were made out of mud with straw roofs. I was also told that those who could afford iron sheets were working for GRL, but that in recent years others could also afford it. The reason for this is as mentioned earlier, that they now have employment and money. However, it is also due to the help from GRL with transporting building materials. Nobody has cars and transporting such heavy materials by foot or bicycle is impossible, or at least it would take a long time, but with the help of the company they are now able to. One account regarding this is as follows:

"In general, comparing the lifestyle and economic situation which was before this intervention of these investors, GRL and MPM, with now in the case of these indigenous people there are some sort of improvement. Because before the indigenous people were building small huts of mud, but now I can see that they can afford to build good houses with iron sheets. Also when I moved here in the 1980s people were wearing something like bed sheets, but now I can see people in the street with nice trousers and dresses."(Interview with village elder in Makungu 28.10.09)

Whether these changes have occurred due to the general development in Tanzania or due to Green Resources is difficult to say. However, a general consensus amongst the respondents seemed to be that especially quality in housing was due to increased incomes from employment opportunities brought about by GRL. In addition, even if employment is the main benefit for the residents they also pointed out that the company had helped them in other ways, for example by supporting the local dispensaries with equipment. Accounts regarding this are:

"Before GRL, there was no infrastructure here, but now there are roads connecting us with other villages and there are cars coming here. They have also helped the school by building

more classes, so more children can go to school. The employment opportunities are also important, because before we had only farming, but now we can work and earn money." (Village meeting in Chogo 07.11.09)

"The company has built two classrooms for the primary school, and are going to build five more. They have also maintained the football ground and built two classrooms and a dormitory for the secondary school." (Interview with Village Chairman in Uchindile 04.12.09)

"They are not just acquiring land; they are also showing their help. That is why people accept them." (Interview with Ward Executive Officer in Makungu)

"The company is like our mother and father; we depend on them for everything" (General conversation with women in Kitete 05.12.09)

As a conclusion, many villagers see several benefits from the company's presence. The general feeling amongst them seems to be that life is better and easier now compared to in the past. However, most of the benefits come from the employment opportunities, meaning that if the company for any reason had to stop its projects they would be back at status quo. Thus, even if they have received other benefits, the community projects are not sufficient to secure the villages a sustainable future. Therefore, it is important that more projects or programs are carried out that will ensure this, and that proper contracts are made to secure the future livelihood of these local communities.

8.3 Other Considerations

8.3.1 Worker Conditions

Since employment is the greatest benefit that the villagers receive from the company I feel that it is relevant to highlight some of the issues in this regard, since also employment also was a subject I heard most complaints about.

The company provides employment for thousands of local residents in areas where there are no opportunities other than farming. However, a majority of these positions are temporary, or as the personnel manager in GRL calls them due to labour laws; "employees on daily basis contracts." Efforts are made to hire as many as possible on a permanent basis, but due to

the nature of forest planting and since the need for personnel is seasonal, it is difficult. During planting season, which is during the rainy season, the need for more personnel is higher. The rest of the year they mostly use permanent staff for their tree nurseries, pruning and thinning of planted forest, as well as other operations on the plantations. According to several company representatives, having just permanent staff would also lead to fewer people being employed as they would use the same people for different tasks during the year. This they say is not good for the locals and neither for them.

Nevertheless, it is not the nature of casual labour that is the problem, but how this labour is treated. Due to the fact that they are hired on a day to day basis it does not provide them with a secure income, thus most have to rely on other income sources such as farming. Furthermore, the plantations are sometimes far from their homes, meaning that they can either choose to live in dormitories away from home or walk/bicycle to work, which can sometimes take 4 hours one way. For some of the villages, transport to and from work is available, but so far an adequate solution to this is not found. Therefore, some use up to 16 hours per day travelling to and from work, which is obviously very tiring and makes it difficult to do other things. In addition to this, some of those who work on a temporary basis have worked for the company continuously since it started in 1997. They have of course worked with different things, but particularly those working on fire lines and at the fire towers have worked for a long time on a temporary basis.

Moreover, the salaries are not adequate according to the workers, and the majority (temporary workers) earn 2,500 Tzs per day. That is $1.80 or 10 NOK per day as of March 2010[24]. The World Bank and the UN defines extreme poverty as under $1.25 a day, while the median poverty line for the developing countries is defined as under $2 a day, which means that the majority of salaries paid by the company are not directly supporting poverty alleviation, which is one of the eligibility criteria for CDM projects in Tanzania (see appendix 7). It is undisputable that some money is better than none, but if the benefits outweigh the costs it is not profitable. When representatives of the company was confronted with this, they argued that the wage was according to the minimum wage set by the Government, and

[24] March 25th 2010: http://www.oanda.com/currency/converter/

that according to the current productivity and economic performance of the company it was not possible to give higher wages. However, after talks with the workers trade union[25], the minimum wage should be 100,000 tzs per month and not the current 65, 000 tzs. The reason for this is that when the company starts producing, which the generation of carbon should be considered, the workers should by law receive an increase in their wage. The representative that I talked to at the workers union claimed that they had tried negotiating with the company without any luck. The company denied that they had started production, but a compromise was reached and the salaries were raised to 72,500 tzs per month. However, after talking to workers in the field, this is just for those who are hired on a permanent basis. Thos who are temporary workers still receive only 65,000 tzs per month.

In addition to inadequate salaries, I was told that during planting season workers were given 250 plants that had to be planted per day, each plant paying 10 tzs, and if they did not fulfil their task they got paid accordingly. When I confronted the management in Green Resources about this, they told me that they were unsure of the different practices the plantation managers used. However, they knew that productivity had been low in one of the plantations and where the workers finished around noon and went home. Thus, to ensure that they had full working hours, they received a minimum amount that they had to plant. However, due to this many decided not to work for the company, as this was too much and tiresome. This can also be regarded as a type of "everyday" resistance towards the company, showing their dissatisfaction about the company's practices by boycotting them.

Another issue regarding salaries that has been a source of conflict is that 10 percent of the salary is deducted for the National Social Security Fund (NSSF). The company has always paid 10 percent of their salaries to NSSF, but starting from February 2009, the employees themselves also have to pay 10 percent. This is obviously not something the company can be blamed for, but due to bad communication and information, as well as a lack of trust in such funds, there have been some conflicts. Rumour has it that the fire in Idete was caused by workers who were unsatisfied with this arrangement, however, this cannot be confirmed. If so, the conflict could have been avoided by for example raising the salary equal or more

[25] Tanzanian Plantation and Agricultural Workers Union (TPAWU)

than the loss to NSSF. Fortunately, I have not found anything in the company's annual accounts that suggests that they are paying any dividend to the investors yet, and it was first in 2007 they had a larger profit. This suggests at least that the company is not taking out any huge profits for themselves and at the same time paying inadequate salaries to its workers. However, based on the recent years profit, it seems like the economic performance of the company is increasing, which should also benefit of the workers.

Additionally, health and security is not adequately taken care of due to insufficient access to working clothes. A majority use their own clothes, which naturally gets worn out and ruined, but which are not compensated for. The company notes that they have had a problem with this due to the temporary workers. Previously, everyone had been given clothes, but they worked a day, week or month and left with the clothes, which led to high costs and losses for the company. However, I noticed that those working full-time, and those working with chemicals, had good and sufficient clothes. I talked to the company about this, and also came up with some suggestions, and I hope and think that there is an easy and good solution for this so that this could be granted for all.

Finally, I unfortunately came over some sad stories regarding bribery for jobs and sexual harassment. These were issues I were told in confidence by people I would consider reliable informants, but who want to remain anonymous. However, I was later able to confirm the information given by those affected by these misconducts. The ones affected were at first hesitant to talk to me, afraid of possible consequences, but after being reassured by several others that had already met me, they decided to come forward. These findings, together with another student's findings[26], were presented to the company separately, but orally to the management in Tanzania as well as in Norway. Fortunately, the company took these allegations seriously, and hired an independent consultant to review the same villages. The report by these evaluators is expected to be finished in the end of May. However, based on these findings, they have already made several changes and eight mid- and senior managers at GRL have been fired.

[26] Leika Mark Noppenau (forthcoming), master student at Centre for Development and Environment (SUM) at the University of Oslo who also was there to study GRL and encountered the same stories.

The last and eleventh principle in the minimum human-rights principles applicable to large-scale land acquisitions and leases is concerned with waged agricultural workers rights. The principle is concerned with the rights of waged agricultural workers in large-scale food plantations by foreign developers. However, it can be applied to any type of work, or plantation. As the issues above illustrate this is an area the company can improve. Green Resources apply to the ILO instruments and other guidelines, but has admitted that they can get better in following these to create better working conditions for their workers. This is also an important aspect to ensure the sustainability of the project. However, I think it is important to point out that the company does its best to live up to all rules and regulations they have adopted and apply to, such as the International Labour Organisations (ILO) Convention, the Employment and Labour Relations Act of 2004, CCBA- and FSC guidelines. Proof of this is also seen by their validation under different regimes, which is conducted by serious third party consultants.

They also try to help the workers and residents with transport as good as possible, but the roads are bad and their cars often break down, which can take some time to fix in such remote areas. They have recently purchased several Land Rover trucks to improve this, and hope these vehicles can stand the rough roads better. Additionally, everyone is offered free lunch at work consisting of traditional dishes such as ugali and beans. However, it must be mentioned that there have been some problems regarding these meals as the money supposed to be spent on them or the food itself has been taken by those in charge of bringing and preparing the food. Also, in an effort to empower locals, Green Resources only use Tanzanians for managing their operations in and outside the plantations. Unfortunately, there has been a lack of communication and follow-up by the Norwegian management, which may have led to some of the misconducts mentioned earlier. However, after recent events based on some of my findings there have been some reorganizations and the Norwegian management will probably keep a closer eye on the operations in the future.

I would also like to add that when I visited Uchindile and Kitete there had recently been a fire in Uchindile Forest Plantation (UFP) and all operations where shut down due to security and pending investigations. Everyone, except a few, was suspended until further notice since

the scope of the fire was so large that the company was unsure whether to start up again. The villagers told me that this had affected them severely because nobody had money and the shop keepers had to close or at least were not able to sell anything. Consequently, many had left for other villages so they could sell their products. They all felt despaired and were very sad. This was a big loss for them and everyone begged me to ask the company to start up again. However, if the fire was in fact arson, the resistance against the company may go deeper than at first glance. In *Weapons of the Weak*, James C. Scott (1985) argue that arson and sabotage are typical "weapons" of relatively powerless groups to demonstrate their resistance without having to confront authority or other elite norms. Nevertheless, I cannot imagine that the resistance comes from people in general in Uchindile, but amongst the workers. The reason for this is that the villagers in general seemed to be happy about the company and wished for them to resume their project, while it was the workers that came with objections towards the company. Notwithstanding, the company has resumed its projects in Uchindile and has plans of expanding even more.

8.3.2 Cost vs. Benefits

As can be seen from the previous sections, there are both costs and benefits with such investments for the local inhabitants. The major cost at stake is obviously land, and the greatest benefit is employment, but the question remains whether this is enough to outweigh the costs. One good example is the shut-down of UFP and how this affected the villagers. If the company for any reason have to stop their business, this could have severe effects on the lives of the locals, which questions the sustainability. Obviously there are also other benefits from the company that accrue to the local inhabitants, but not enough have been done to promote a sustainable future. However, a simple cost benefit analysis can be used to illustrate and discuss this.

To illustrate with an example of a farmer in one of the villages; in general most of them have about 2 acres of land for cultivation and they grow a variety of crops such as maize, cassava and beans. Most of this is used for own consumption, while the rest is for sale, but to make it simple, we can assume that the whole 2 acres is cultivated with maize for sale. According to some farmers in Mapanda they could get 5 sacks of maize from 1 acre, each sack selling

for 32,000 tzs, which means a total of 320,000 tzs for the whole crop. Considering that from land preparation to harvesting and selling it takes 10 months, and dividing it with 26 working days per month, it gives the average farmer 1,200 tzs a day. However, one has to consider risks and costs of cultivating, as well as that they also grow other things and that the size of the area for cultivation varies. Either way, few farmers will be able to exceed the salary they receive from the company of 2,500 tzs a day, even if it is low. In addition, there are not many other income opportunities either, and none of the farmers to my knowledge travels to other places outside the season to earn an income.

However, just because some decide to work for the company their land is not left uncultivated. Either someone else in the household takes care of their land, or they are able to hire someone else to take care of it. In this way they are not only earning income from employment, but also from cash crops. However, it will depend on whether they have enough land to cultivate and that they have not given away all their land. It is also reserved that not all the working force is hired and that the employment is secure. Even so, the land that they give away does not necessarily have to affect them directly, but it can also affect them indirectly. For example in Mapanda, some women told me that an area where they could draw sand to make clay for pots to sell was now inaccessible to them. The reason was that it was situated on the other side of the plantation, and they were not allowed to go through the plantation since the company does not allow it due to fire security. In addition, in the same area, they could also find minerals for their animals to feed on and honey. I have understood that the Village Council together with the company has set aside an area for livestock keepers, and that the area the women referred to had not been used for years.

In conclusion, giving away land to investors can bring good and sustainable benefits. However, there are many important issues to consider before such decisions are made, and all stakeholders need to be consulted. The lease for the land is for 99 years and it is difficult to foresee land needs for so many years in the future, but also which implications this may have on local livelihoods. Even so, without any interventions there will not be any developments. For years Tanzania have had problems of commercialising their agriculture and increase productions, but as can be seen from the previous sections, due to GRLs

interventions people in the area are able to produce and sell more of their crops. Therefore, to reach equilibrium between the costs and benefits, the villagers most ensure that they do not give away more than 1/3 of their land, and the company must ensure secure employment and continue to support community projects that will give them a sustainable future. However, this has to some degree been neglected, thus, possibly compromising the livelihood of future generations.

8.4 Local Discourses and Narratives on Carbon Offset Forestry

In this thesis I have chosen to focus on the narratives of the different actors, and as a part of my analysis I wished to show how these narratives would fit in with global discourses and narratives regarding projects that mitigate climate change and promotes sustainable development. The analysis started with examining the accounts of the different stakeholders, and by comparing these empirical findings with other literature on carbon offset forestry I was able extract the different narratives. In the literature review I presented in section 5.5, I identified three leading discourses, namely; ecological modernization, green governmentality, and civic environmentalism, which are surrounding and connected to such projects, and which further are supported by the production of different narratives. The use of narratives within both the “win-win”- and the critical discourse plays an important role to be able to characterize the point of view of the different actors and where they fit in.

Regarding the win-win discourses, ecological modernization and green governmentality, narratives about specific arrangements show how carbon sequestration projects can lead to various benefits. The narrative follows the typical form of narratives with a beginning (when the environment became a part of the global political agenda), a middle (the “discovery” of the global environmental crisis), and an end (the solution). Thus, constructing a cast of actors such as heroes (the global environmental institutions), villains (polluters), and victims (the living planet), who takes part in the production and reproduction of the narrative.

An important narrative regarding this, in the particular project I have looked at, is constituted by the positive accounts of the cooperation between GRL and the Village Councils. Through allocating land to GRL, the Village Councils have an agreement with the company in which they receive support for community projects, both through the virtue of

giving land and through the 10 percent of the carbon sales revenues. This enables GRL to plant trees that can mitigate climate change and give them valuable revenues, and at the same time the local communities are benefiting. Hence, GRL took part in the reproduction of a win-win narrative based on their experiences with planting trees and benefit sharing, especially emphasizing on the recent social and economic benefits of the indigenous people due to their arrangements. The different Village Councils also took part of this reproduction of a win-win narrative by expressing their satisfaction about the company and all the benefits they received from them.

The local villagers in general were also satisfied with these arrangements, but some workers showed some uncertainty and opposition especially regarding issues surrounding work and promises made. It is difficult to decide where their narrative fit in as they also reflect politicisation and education of carbon sequestration projects through the company and local and district government. However, the villagers themselves took part in the production of a win-win narrative through positive accounts about the presence of the company and how it presented them with an employment opportunity, but also because they were happy with the agreement of their village to receive support for community projects. This enhanced their lives both directly and indirectly. Nonetheless, it is important to note that local and otherwise powerless groups often reproduce the narratives of the "elite" (Scott 1985), as they often believe that this is what is best for them and that they find it difficult to criticize something that has left them better off than before, despite giving away their land for 99 years.

In addition, the district government also gave positive accounts of these arrangements, emphasizing the benefits for the local villagers, as well as the benefits for district and national government ultimately taking part in the fulfilment of district and national goals such as the NSGPR and the Tanzanian Vision 2025. Hence, the cast of actors within the win-win narrative involves one actor, namely GRL, which is seen as the hero. The company see themselves as the hero through sharing benefits, which is further supported by the other actors involved in the win-win narrative. The narrative focuses only on the benefits from such a project, presenting no villains or victims, only heroes. Thus, most of the stakeholders

to Green Resources projects can be categorized as taking part of the reproduction of the typical win-win narrative within the ecological modernization discourse.

Regarding the critical discourse, civic environmentalism, narratives are produced as counter-narratives to the win-win rhetoric. As showed earlier in section 5.5, well known win-win narratives are met with the construction of counter-narratives. For instance, the particular project I have looked at have been countered by critical narratives of which benefits to locals were regarded too low and characterised as "land-grabbing" (Gaarder 2009; Stave 2000). The different critical narratives focus on different aspects of carbon sequestration projects ranging from ecological to development concerns. However, all of them emphasize participation and the inclusion of indigenous knowledge to ensure successful and sustainable projects. In connection to this, I encountered an alternative narrative, which is somewhat critical. Some of the respondents, both at local and district level, expressed their concern because GRL had been able to acquire so much land and the possible implications this may have on future generations. They also expressed their dissatisfaction in the company's lack of fulfilment of promises, and were critical towards the worker conditions. Thus, the narrative does not necessarily fit it with the critical discourse of civic environmentalism, but poses as an alternative local discourse.

In conclusion, most of the stakeholders interviewed for this thesis supported the win-win narratives and took part in the support of such discourses by their reproduction of a win-win narrative. I also identified an alternative narrative, which was more critical, but which can be characterised as an alternative to the typical critical discourse. However, the reason why I did not encounter more critical narratives, may be because critical narratives are often produced by NGOs and think tanks who I did not interview, but which I have only reviewed literature. The producers of critical narratives would see GRL as the villains and the developing world and poor people in general, but more specifically the villagers and the indigenous people as the victims, representing no heroes. Moreover, it is important to recognize the context in which discourses are produced. Since I was dependent on the company's resources and facilitation to get out to the villages, the villagers may not have trusted me and believed I was from the company, thus, giving me the answers they thought I

wanted in spite of continuously reassuring them that I was not. In addition, the win-win narrative is often produced and reproduced by the main actors themselves, such as GRL, and whether the locals and the villagers gave positive accounts due to the influence and education from the company, or if they in fact are satisfied, remain unclear. On the other hand, the critical narratives are often produced and based on rather weak empirical knowledge and totally separate from the social practises. Hence, the local discourse poses an interesting alternative.

9 Conclusion

With this thesis I have tried to show how the discourse of climate change has lead to the creation of mechanisms, which from a global perspective can manage global problems and also benefit local people in the developing world. However, in the struggle of doing this in an economically efficient way, these mechanisms have adopted a property rights approach rather than a commons approach by ceding large areas of land to foreign private investors. This can potentially put rural livelihoods at risk who have not already secured their own property rights and with governments anxious of being integrated in the global capitalist world, foreign private investors rights are often considered first. Therefore, as my findings have shown, this blue print solution to global problems may in the long term compromise future generations' access to land and their possibilities of providing for themselves.

Furthermore, critical global narratives on the CDM and carbon offset forestry, tell stories of local people as victims of top down projects subscribing to the win-win rhetoric. In spite of that, and as this paper has showed, local villagers are also benefiting from this type of projects. However, due to unsecure employment and other important issues, the costs may outweigh the benefits of allocating land for investments such as this. In this way, we can see that Green Resources have not been able to fully live up to the dual goals of the CDM, and two major obstacles hindering these synergies are communication and sustainability. In addition, by implementing such a blue print solution, the company has also failed to address different ethical considerations behind such an investment, as well as the heterogeneity in interests amongst the different stakeholders.

Green Resources have addressed some of the considerations and issues in the minimum human rights principles applicable to large-scale land acquisitions and leases. However, it is difficult to assess when such an investment is in general ethically and morally right. Human-rights are moral stands that have been systematically gathered into ethical standards through such as the Universal Declaration of Human Rights. However, they are not able to handle the question whether or to what extent an action is good beyond human-rights. Looking at ethics in general, Jeremy Bentham (1970), the founder of utilitarianism, would say

that an action is good if it tends to increase the good in society more than decreasing it. This principle supports the win-win discourse about such projects in developing countries, as they are developed for the greater good and to everyone's benefit. Nevertheless, identifying those behind the production of the win-win discourse, we find individuals and institutions that hold great power. Thus, those deciding what the greater good is are not the local communities themselves, but the "elite". Therefore, at the present time, human-rights are one of the few ethical standards that can ensure that the voice of the powerless local communities is heard, and that their rights are ensured.

Green Resources is maybe not the most unethical company in Tanzania, but still there are some issues that need to be addressed and improved. By taking responsibility for this the company's projects can hopefully become examples of best cases. They have already come a long way, and are reinvesting 100 percent of the gross revenues from the sale of carbon credits in Tanzania, where 10 percent goes to the local communities. This is an important and crucial measure if Tanzania is to benefit from carbon sequestration projects. No one can foresee the future, but a CDM reform is underway as we are soon reaching 2012. The current principles of addressing human-rights are not necessarily fully applicable to land grabbing in general. However, a modification of the principles are forthcoming, and can hopefully be used so that a future design of the CDM in a better way will include trade-offs between global and local priorities that can also be integrated in existing projects.

Finally, it is important that these principles are recognized by the international community as they address international human-rights norms and ethical considerations that other standards have yet to address. In addition, it is also necessary that the Tanzanian government is more critical towards projects that want to acquire or lease large tracts of land, considering the future of their own people and not lose national sovereignty by ceding the country bit by bit.

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Appendixes

Appendix 1: Interview guide for interviews and focus groups in the villages

- The historical use of the land (agriculture, hunting, grassing, etc.)
- What have been the major changes in the village the last 10-20 years?
- What is the main reason for these changes?
- How was life before and after GR?
- Was the local community involved in the decision making process of giving land to GR?
- If not, do you think the community would have "voted" against?
- Why do you think the VC took the decision of giving land to GR?
- Has it affected your access to resources? (less land? Water levels? Restrictions on use?)
- Do you think it might affect future generations that you have given away so much land?
- How is the communication between the community and VC/DC/GR?
- Has GR presence changed your view on the environment? Especially regarding the use of land.
- What do you know about climate change? And has this changed since GR came?
- What do you know about GR carbon capture "program"?
- Do you know the objectives of GR projects?
- GR mentions increased school attendance in one of their reports, do you experience that?

Appendix 2: Interview guide for interviews with Village- and Ward Council

- Background information about the area (size both in population and land, income generating activities, employment opportunities, land use, political and economical situation)
- The historical use of the land (agriculture, hunting, grassing, etc.)
- What have been the major changes in the village the last 10-20 years?
- What is the main reason for these changes?
- How was life before and after GR?
- Do you have a land use plan?
- Have you received a certificate of village land?
- How much of the total land owned by the village was given to GR?
- How has this affected villager's access to resources?
- How do you think this might affect future generation?
- How was the village approached by GR when they wanted to acquire land?
- How was the contract/proposal negotiated?
- What did you base your decisions on? Short- / long term objectives?
- Did you get or seek any third party advice?
- Did you gather the village assembly before approving GR proposal?
- Have or are GR paying anything to the village for the land they acquired?
- How will the 10% of the carbon revenues be received? Money or help in form of materials etc.
- If money, is there any plan how these should be spent?
- How is the dialogue/communication with GR?
- Who communicate to the local villagers? Is a village assembly often held to inform the locals?
- Increased school attendance?

Appendix 3: Interview guide for interviews with District Council members

Can use some of the questions from VC/ward, in addition:

- When was application for land received by the DC?
- Approval given? On all levels, village, district, regional, and national?
- Have the Village been turned into General land?
- Is Customary Right of Occupancy (CRO) received?
- What is the cost of leasing land, and who receives the money?
- Have the VC's involved in giving land to GR been trained after the new Village Land Act 1999?
- Who took decisions regarding "selling" land to private investors before 1999 or 2001?
- If DC, how was the process, and how where you approached?
- Do you have a plan over the village? (size in ha)
- How much of the total was given to GR?
- Where there anyone living on the land given to GR?
- If yes, did they have to move and were they compensated for this?
- Have this affected locals access to land and resources?
- How do you think it might affect future generation's access to land and resources?
- What is your position on private investments such as this?
- If something happens, can the government take away the land from GR?
- Do you have figures over the economic growth in the area?
- Do you have records of increased school attendance in the villages GR are helping? Compared to other
- What are the employment opportunities for people in the villages?

Appendix 4: Interview guide for plantation workers in GRL

- What do you do?
- How is the employment opportunity in the area?
- What kind of education do you have?
- How do you like working for GR?
- Have you worked with other things before? How will you compare that with working for GR?
- How is your salary?
- How will you compare your salary with the work load? Or to other income options?
- Do you have a written contract?
- Are you organized?
- How is the communication within the workplace? With managers? GR?
- If you could change anything what would you change?

Appendix 5: Interview guide for interviews with GRL before village visits

- How many villages are involved in giving land to your project?
- For how long are you entitled to use the land you have?
- Have you received a Customary Right of Occupancy (CRO) for the land you have?
- How was the plantation land used before you came here? Historical use.
- How does the company contribute to the socioeconomic development of the local communities?
- How is the relationship between the company and the local communities? Changes?
- Have there been any problems with the other villages surrounding the plantations? Jealousy, etc.
- Are you the only employer in the area?
- Do you provide transport for your workers? To and from the plantation.
- How is the safety and health of the workers taken care of?

Appendix 6: Interview guide for interviews with GRL after village visits

- Temporary vs. permanent workers
- Transport
- Low wages/NSSF
- Lack of communication
- Insufficient work clothes and safety (ruin their own clothes)
- Water sources
- Promises (Contract? Fulfillment? Discrepancies between budget and real life?)
- EIA reports
- What are your plans for the future to correct these things? How can you better the flow of communication?

Appendix 7: Eligibility criteria for CDM project in Tanzania

One of the two objectives of CDM is that the project should promote sustainable development in the host country Party. Assessment of these criteria is prerogative of the host country, the DNA. There are no international standards that have been prescribed in this context. The Tanzania DNA has identified the following as the key criteria for CDM projects in Tanzania:

- The CDM project activity should be consistent with National Strategy for Growth and Reduction of Poverty, 2005 and that it should aim at poverty alleviation by generating additional employment and improving standard of life.
- The CDM project activity should bring in additional financial flows through investment and should be consistent with the Vision, 2025 and Vision 2020 for Tanzania mainland and Zanzibar respectively.
- The project activity should be consistent with the Environmental Management Act, 2004 and its Environmental Impact Assessment and Audit Regulations, 2005. The project should reflect resource sustainability and resource degradation if any, impact on biodiversity, human health and other environmental issues.
- The CDM project activity should lead to transfer of environmentally benign and sound technologies to Tanzania.
- Congruence with the national environmental policy and related action plans and strategies;
- Energy projects particularly in rural areas are accorded the highest priority;
- There should be a partnership between investor country company or institution and the host country local private company, NGO, Research /Academic Institutions or government department (Unilateral projects are encouraged) where no additional technology or finance is not requested.

(Source: URT 2007:15)

Appendix 8: Minimum human rights principles applicable to large-scale land acquisitions or leases

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

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

Principle 3: In order to ensure that the rights of local communities will be safeguarded at all times, States should adopt legislation protecting these and specifying in detail the conditions according to which shifts in land use, or evictions, may take place, as well as the procedures to be followed. Moreover, States should assist individuals and local communities in obtaining individual titles or collective registration of the land they use, in order to ensure that their rights will enjoy full judicial protection. Such legislation should be designed in accordance

with the basic principles and guidelines on development-based evictions and displacement presented in 2007 by the former Special Rapporteur on the right to adequate housing as a component of the right to an adequate standard of living, and with general comment No. 7 (1997) of the Committee on Economic, Social and Cultural Rights on the right to adequate housing (article 11 (1) of the Covenant): forced evictions.

Principle 4: The local population should benefit from the revenues generated by the investment agreement. Investment contracts should prioritize the development needs of the local population and seek to achieve solutions which represent an adequate balance between the interests of all parties. Depending on the circumstances, arrangements under which the foreign investor provides access to credit and improved technologies for contract farming, against the possibility to buy at predefined prices a portion of the crops produced, may be preferable to long-term leases of land or land purchases, although contract farming itself should comply with the conditions set out in the report of the Special Rapporteur on agribusiness and the right to food (A/HRC/13/33, paragraphs 43–45).

Principle 5: In countries facing important levels of rural poverty and in the absence of employment opportunities in other sectors, host States and investors should establish and promote farming systems that are sufficiently labor-intensive to contribute to employment creation. Labor-intensive modes of production can be highly productive per hectare. Investment agreements should contribute to the fullest extent possible to reinforcing local livelihood options and in particular provide access to a living wage for the local population affected, which is a key component of the human right to food.

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

Principle 7: Whatever the content of the arrangement, it is essential that the obligations of the investor be defined in clear terms, and that these obligations be enforceable, for instance by the inclusion of predefined sanctions in case of non-compliance. For this

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

Principle 8: In order to ensure that they will not increase food insecurity for the local population, particularly as the result of increased dependence on international markets or food aid in a context of higher prices for agricultural commodities, investment agreements with net food-importing countries should include a clause providing that a certain minimum percentage of the crops produced shall be sold on local markets, and that this percentage may increase, in proportions to be agreed in advance, if the prices of food commodities on international markets reach certain levels. Appropriate support schemes may also have to be put in place to increase the productivity of local farmers, in order to ensure that they will not suffer income losses as a result of low-priced produce arriving on the local markets, which has been produced under more competitive conditions on the large-scale plantations developed by foreign investors.

Principle 9: In order to highlight the consequences of investment on the enjoyment of the right to food, impact assessments should be conducted prior to the completion of the negotiations on (a) local employment and incomes, disaggregated by gender and, where applicable, by ethnic group; (b) access to productive resources by local communities, including pastoralists or itinerant farmers; (c) the arrival of new technologies and investments in infrastructure; (d) the environment, including soil depletion, the use of water resources and genetic erosion; and (e) access, availability and adequacy of food. Only

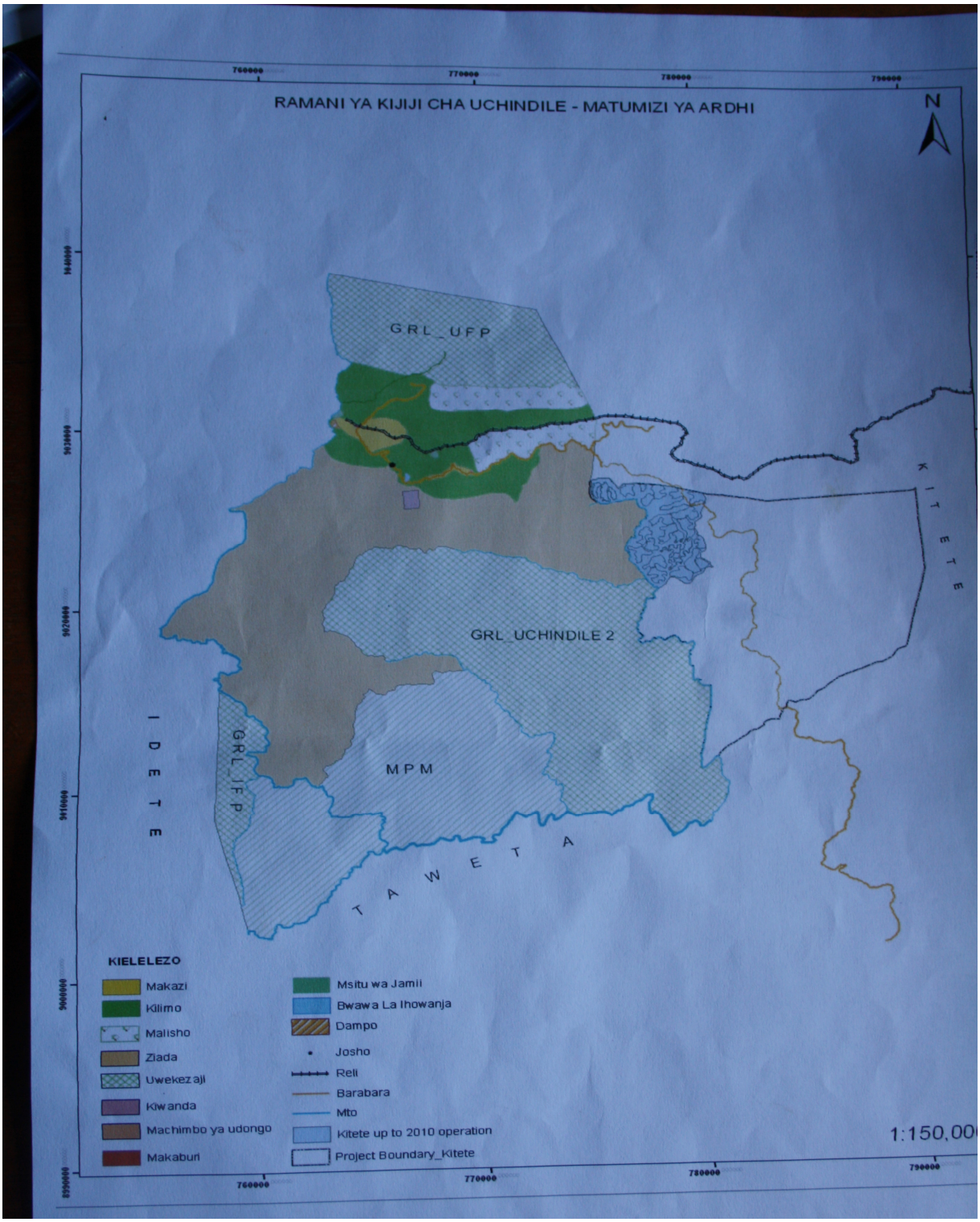
through such impact assessments, which should include a participatory dimension, can it be ensured that the contracts providing for the lease or sale of land will distribute the benefits equitably between the local communities, the host State, and the investor.

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

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

(Source: De Schutter 2009:16-18)

Appendix 9: Picture of projected land-use plan from Uchindile village



(Source: Uchindile Village Council)

Appendix 10: Land-use plan for Uchindile, Kitete and Taweta