Managing Trees and Power Relations

Analysing power in two tree restoration projects in central Tanzania

Linus Linse

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Abstract

Nature restoration and carbon forestry projects in the Global South are considered central tools for climate change mitigation and adaptation. Proponents claim that projects have the potential to deliver win-win solutions, supporting poverty alleviation and local empowerment in addition to environmental benefits and carbon sequestration. However, over the last decades, a growing body of literature has criticised projects for paying insufficient attention to local needs. This case study takes foothold in both camps, realising, on the one hand, that the world could indeed benefit from having more trees and that local communities around the world depend on access to forest products for their livelihoods. On the other hand, I support the critique, recognising that unless significant attention is given to ensure local benefits, nature restoration projects run the risk of becoming exploitative tools, reproducing post-colonial power relations between North and South. Hence, the thesis aims to contribute to the literature by exploring how power relations influence the impacts projects have in local communities. The study comprises two nature restoration projects in Tanzania, both aiming to increase the number of trees in local villages.

The study is based on semi-structured interviews and observations, conducted during five weeks of fieldwork in Tanzania. Interviews were held primarily with farmer households in two villages that had both projects present. It also includes interviews with project implementers and village leaders.

A livelihoods approach guided the fieldwork and was used analytically to determine project impacts. The material was then analysed using a lens of power, revealing important connections between the power residing with information and the agency of local farmers. The study also identifies the projects as power players in the local political arena and highlights the need for sufficient mechanisms to ensure downwards accountability and representation to support local democracy. Lastly, the results suggest that the small-scale approach used by both projects and working with farmers in flexible agreements on their own land, can alleviate livelihood constraints due to national and regional regulations on natural resource use.

Keywords: Nature restoration, Power relations, Carbon forestry

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Abbreviations

CBFM	Community Based Forest Management
COP	Conference of the Parties
GDP	Gross Domestic Product
GHG	Greenhouse Gas
JFM	Joint Forest Management
PFM	Participatory Forest Management
TPP	Tree Planting Project
TRP	Tree Regeneration Project
TZS	Tanzanian Shilling
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States Dollar
V1 & V2	Village 1 & Village 2

1. Introduction

1.1 Point of Departure

Nature restoration projects have become increasingly popular over the last decades, and they are still on the rise (Duguma et al. 2020). With the growing threat from the climate crisis, significant hope is placed on the capacity of forests to capture carbon (Lovera-Bilderleek & Lahiri 2021; Blum 2020; Mbatu 2016; IPCC 2018). Currently, the global community is devoting much effort to increasing forest cover on the planet in general and in the Global South in particular (Carton et.al 2020; Lund et al. 2017; Buizer et al. 2014; Fisher & Hajdu 2018; Fleischman et al. 2020). Tree planting initiatives like the AFR100 and the (currently three different) trillion-tree-campaigns aim to plant and restore forests across hundreds of millions of hectares (Bond et al. 2019; Lewis et al. 2019; Holl 2017). With an annual deforestation rate of 10 Mha globally, academics and politicians largely agree about the need for global efforts to restore nature (FAO 2020; Bond et al. 2019; Lewis et al. 2019; Fleischman et al. 2020).

However, restoration and conservation projects have long been accused of implementing initiatives with a top-down approach and insufficient attention to local needs and conditions (Carton et al. 2020; Thompson et al. 2011; Leach & Scoones 2015; Kijazi 2015; Milne et al. 2019). While some authors have criticised the social justice aspects of these projects, pointing to post-colonial patterns of North-South relations (Dominguez & Louma 2020; Lyons & Westoby 2014; Leach & Scoones 2015; Fairhead et al. 2012; Bäckstrand & Lövbrand 2006), others have highlighted the need to align project goals with local needs in order to succeed with any project ambitions (Duguma et.al 2020; Thompson et al. 2011; Samndong 2016).

Projects vary in both type and scale. They span from thousands-of-hectare tree plantations to community-based agroforestry systems and small-scale projects where farmers plant small numbers of trees next to their houses or in and around their fields (Stanturf et al. 2014; Nel & Hill 2014; Holl 2017). Furthermore, over the last two decades nature conservation and restoration efforts have been increasingly coupled with carbon sequestration and the production of greenhouse gas emission rights (Holl 2017). While this diversity in the scope and design of projects brings different benefits and challenges, power relations appear to be an important, and often overlooked, factor for understanding local effects across project types (Lovera-Bilderleek & Lahiri 2021; Blum 2020).

Power relations play out at different scales and levels. Political struggles between global forces boils down into policies to be implemented, often by foreign private actors, in local contexts, where new power relations are formed and old ones

reinforced or rearranged (Lovera-Bilderleek & Lahiri 2021; Blum 2020). Contrary to proponents' claims about projects capacity to generate win-win outcomes e.g. for local livelihoods, the environment and/or the climate, authors have repeatedly pointed to difficulties in overcoming trade-offs between social, environmental and economic benefits (Engström & Hajdu 2018; Büscher 2014; Nel & Hill 2014; Bäckstrand & Lövbrand 2006). More often than not, local social values are the ones that have to give way to other benefits and hence, already marginalised people tend to come out on the losing end in these processes (Lovera-Bilderleek & Lahiri 2021). While this has been true for conservation and restoration projects (Benjaminsen & Bryceson 2012; Dominguez & Louma 2020; Benjaminsen & Svarstad 2010), it appears an especially prominent feature in projects involving climate compensation and carbon offsets (Cavanagh & Benjaminsen 2014; Carton et al. 2020; Leach & Scoones 2015; Blum 2020). Carton et al. (2020:11) states that:

> […] the impacts on local well-being and local resource governance are in practice often disappointing or even negative. Numerous carbon forestry schemes have been shown to interrupt and limit local resource use, entrench existing local inequalities, or destabilize local economies, while promised local incentives commonly fail to materialize in any significant way.

Against this background, this thesis examines the local effects in two small-scale nature restoration projects in Tanzania. Both projects are focused on increasing the number of trees in local villages – one by planting trees and the other through natural regeneration. The former is a climate compensation and development project, looking to generate carbon emission credits to be sold on the global market. The latter is, so far, a conservation and development project, however hoping to one day step into the carbon business. To contribute to the existing literature on tree restoration and carbon forestry projects this study analyses the role of power relations in local impacts from tree restoration projects.

1.2 Study Aim & Research Questions

The purpose of this thesis is to compare manifestations of power in two Tanzanian tree restoration and planting projects to have a better understanding of how power relations are connected to project impacts in local contexts. The study draws on insights from ethnographic fieldwork and livelihoods research to answer the following questions:

- How are the projects affecting the livelihoods of local people?
- How do power relations manifest themselves within the projects?
- In what ways do these relations impact how people are affected by the projects?

1.3 Thesis Outline

The thesis is divided into six main sections. In the next section, I first provide a general background to nature restoration projects in the Global South, before giving the contextual background to the cases. In the third section, I present the theoretical framing of the thesis and introduce the analytical concepts used. The fourth section explains the methodological foundation and the research design choices I have made. Thereafter, in the fifth section, I present and discuss the findings in three sub-sections, each corresponding to one of the research questions. Lastly, in the final section I give my concluding remarks from conducting this study.

2. Background

2.1 Nature Restoration and Carbon Forestry in the Global South

Northern countries have made efforts to restore and conserve natural areas in the Global South since the colonial era. Back then, the purpose was exclusively to benefit the colonising powers e.g., by maximising the profitability from natural resources, conduct research or to secure big-game hunting grounds for westerners (Dominguez & Louma 2020; Büscher & Whande 2007). Large land areas were set aside as preserves, from which local and indigenous people were excluded. In the decades following the abolishment of colonialism, nature restoration initiatives were increasingly motivated by environmentalist pretexts or as tools to support economic development in former colonies (Koch 2016; Dominguez & Louma 2020). However, the method of protecting nature by mitigating human interference through exclusion, known as "fortress conservation", remained the predominant approach until the late 1980's. Since then, projects have been increasingly aimed at delivering win-win solutions, in which local livelihoods and empowerment goals are combined with environmental benefits, national economic development and/or climate change mitigation. (Dominguez & Louma 2020; Büscher & Whande 2007; Benjaminsen & Bryceson 2012). These win-win narratives have, as mentioned in the introduction above, turned out to be problematic, as combining benefits for different purposes and assessing them in complex realities has proven more difficult in practice than in theory (Leach and Scoones 2015; Büscher 2014). Furthermore, research has repeatedly shown that projects tend to be portrayed as success stories, even when realities on the ground are less than impressive (Büscher 2014; Carton et al. 2020).

The popularity of nature restoration projects has increased with the international recognition of climate change and global warming, which has put pressure on world leaders to act (Bachram 2004; Holl 2017; Duguma 2020; Buizer et al. 2014). In 1997, the Kyoto protocol was adopted at the third Conference of the Parties (COP3) to the United Nations Framework Convention on Climate Change (UNFCCC). The protocol staked out the path for how industrialised countries should reduce their emissions. The plan emphasised flexible market mechanisms and introduced the idea of tradable emission rights where Green House Gas (GHG) emission reductions in one place could compensate for GHG emissions in another. Allocating the activities for emission reductions to the Global South was seen as a cheap way of achieving the goals for reduced emissions and a way to finance climate change adaptation for poor countries (UNFCCC 1997; Carton et al. 2020).

Over the last decades, carbon forestry has come to be regarded as one of the most important tools in climate change mitigation. As a result, a multitude of project standards has been established and projects have been carried out all over the Global South (Kollmuss et al. 2008; Carton et al. 2020). However, over the last few decades, carbon projects have faced comprehensive criticism, not least with regards to the perpetuation of inequalities and power relations. Scholars have also criticised an unjust distribution of responsibility, where a disproportionately large part of the burden for fixing the climate crisis is put on poor people who are both ill-equipped to take on that burden and had little to do with creating the crisis (Gupta 2012; Bachram 2004).

Furthermore, nature restoration projects have been associated with what has come to be known as "'green grabbing' – the appropriation of land and resources for environmental ends" (Fairhead et al. 2012:238). The reports of dispossessed and excluded local and indigenous populations often involves large-scale operations in carbon forestry, conservation and/or tourism projects (Fairhead et al. 2012; Benjaminsen & Bryceson 2012; Leach & Scoones 2015). While this study is based on small-scale projects working with local communities, the projects should be understood in their historical context, both in terms of their colonial, and post-colonial legacy.

Below, for the remainder of this chapter, I narrow in on the contextual circumstances for this study, starting at the national level before presenting the studied villages and projects.

2.2   Context Background

2.2.1 National Context

With over 61 million people, The United Republic of Tanzania is the fifth largest country in Africa (World Bank 2021). More than two thirds of the population are engaged in agricultural activities for their livelihood, and the agricultural sector makes up around 30% of the national GDP (Bumb et al. 2021). While the national economy has grown rapidly over two decades and the poverty rate has decreased, 49% still lives under the international poverty line of 1.90 USD per day (Swinkels 2019).

After Tanzania gained independence in 1961, it entered a period of modernisation that was implemented under strict centralised control. Reform took place across societal sectors. In rural areas, people were moved and resettled into villages. While this did little good for individual villagers in terms of tenure rights, authority for land management and distribution were moved to the local level. Around the same time, environmental protection initiatives were scaled up in

number and size, which led to the exclusion of local people in nature reserves and later to land conflicts within the country (Jodoin 2017).

From the mid-1980s, with the end of the socialist rule of president Nyerere, a financial crisis and external political pressure, the country took a liberal turn towards a market economy and reforms to decentralise control and reduce the state apparatus. This was the time of structural adjustment programmes in international aid and steps towards increased liberalisation were well received by donors and the international community (Jodoin 2017).

International donors, not least the Scandinavian countries, had been showing interest in the Tanzanian forestry sector since the 1970s. At that time, the focus was directed at village forestry and making the sector profitable (Koch 2016). However, along with the advancement of the sustainable development concept in the political arena in the 1990s, the focus among donors shifted – from promoting commercial, state-led industrial forest operations to supporting local participatory forest management (PFM) initiatives for environmental ends instead (ibid). Pressure for comprehensive policy changes in favour of decentralisation was applied by the aid industry and, in the early 2000s, the *land act, village act* and *forest act* were introduced. These new policies included new categorisations of land into *reserved land* put aside for the central government for future development, *village land* to be managed by the village councils and *general land*, which falls outside both categories (Jodoin 2017). They also meant a shift in responsibility, whereby the management of forests was delegated to the lowest possible level, enabling local communities to either govern village forests themselves through community-based forest management (CBFM) or to co-manage them with the central government through joint forest management (JFM) (Koch 2017). The difference between these two types of PFM lies in the benefit sharing. In CBFM, the village has complete rights to the forests and the benefits gained from them, whereas in JFM the benefits are shared with the central government (Jodoin 2017; Corbera et al. 2020).

Tanzania hosts almost half of East Africa's forested areas and is, at the same time, dealing with high levels of deforestation (Jodoin 2017; Koch 2017). CBFM has shown positive results for mitigating deforestation, e.g. from illegal logging, whereas JFM has not shown the same potential. While the latter still works better than having no legal management status in place, it has also proven problematic in terms of establishing the conditions for benefit sharing (Corbera et al. 2020).

Furthermore, these policies were partly motivated as tools for poverty alleviation (Kijazi et al. 2017). However, due to problems with corruption, nepotism and elite capture overall, the social benefits from CBFM have in many cases been missing (Corbera et al. 2020; Koch 2017). Green and Lund (2015) show how local elites may use these arrangements to increase their privileges and advance their power positions. CBFM also comes with costs in terms of the time and effort it takes to

manage the forests and, if the benefits do not reach the villagers, it may simply add to their burden while strengthening corrupt elites (Corbera et al. 2020).

These changes towards decentralisation have benefited nature restoration and carbon forestry projects in the sense that it has allowed them to work directly with local administrative levels and, in some cases, PFM has been integrated as central traits of project designs (Green & Lund 2015; Kijazi et al., 2017).

In 2020, around 12%, almost six million hectares, of Tanzania's mainland forests were managed under PFM arrangements (FORVAC 2020). Within these 12%, CBFM and JMF are quite evenly divided, with slightly more JMF.

2.2.2 Local Context

In this section I draw on information that was gathered during the fieldwork through field observations and interviews with village leaders, along with documents shared with me by the district administration office.

The villages included in this study are about the same size as each other with between close to 750 households in Village 1 (V1) and 800 in Village 2 (V2), and almost 4500 inhabitants, according to projections from a 2012 census (shared with me by the district administration office). The populations are distributed over four sub-villages in V1 and eight sub-villages in V2. For this study, material was gathered from two sub-villages in V1 and four sub-villages in V2.

Based on claims by one of the study projects and my own experience from the fieldwork, poverty is widespread in both villages and most people are subsistence farmers. Maize, millet, sorghum, groundnuts and sunflowers are the main crops and the latter two are the most important cash crops. The revenues from the surplus make agriculture the main source of income. There are pastoralist groups in both villages, but most engage in farming as well as livestock keeping.

The villages are located in a semi-arid area with one rain period from November/December to April/May. Temperatures usually range between 15 and 30 degrees Celsius. The rain cycle sets the premise for the farmers' yearly activities.

Some farmers have other sources of income from activities, such as charcoal production, selling homemade beer, driving motorcycle taxis, cooking/restaurant business or selling firewood or timber. Charcoal production is especially risky, as it is prohibited if produced using wood from the village forests, which is what people normally use. The process takes several days and the charcoal mound must be checked repeatedly. If caught, one has to pay a fine of 50 000 TZS (≈21 USD), which is a lot to most villagers. While timber and firewood collection require shorter operations, this carries similar risks to that of charcoal production if carried out illegally. According to the interview material, any removal of trees must be licensed and paid for. Harvesting trees for commercial purposes is illegal. These

circumstances are dictated by Tanzania's regulations on natural resource governance and are not the resulting effects of the projects studied.

2.2.3 Project Context

In this section, I provide an overview of the projects included in this study and the rationale behind them.

Tree Planting Project (TPP)
In 1998, a reforestation and economic development project started in central Tanzania as a collaboration between an American entrepreneur and a local church. According to the project description, the project's main focus was to create local livelihood benefits from tree-planting and sustainable and productive agricultural practices, while also working with preventive information campaigns about HIV/AIDS. In addition, the project was intended for carbon sequestration and to generate greenhouse gas emission credits to be sold on the global market.

As actors from within the church were among the driving forces for devising the project, it was brought to local areas via the diocese. The churches already had a structure in place for organising people in small groups of 6 to 12 persons, who could in part practice Christianity and study the bible together and in part function as a social safety net helping each other through difficult times. As the project was mediated through the churches, this idea of working with small groups was adopted for implementing the project as well. Apart from the administrative convenience of having participants organised in groups, it was meant to strengthen the sustainability of the project, as people could support and motivate each other over time. To further motivate participants to stay with the project and to incentivise them to plant a large number of trees, a small sum (0.02 USD[1]) was paid every three months per tree that had survived. The groups would also gain ownership of the trees they planted.

About four years in, the project came to a halt. Throughout our interviews, we were given three completely different accounts of why the project stopped and it became impossible to outline a coherent story. The three versions involved how the different actors blamed each other of mismanagement, leading to that the project stopped. Because of the difficulties of making sense of these different version, this study does not go further into the details of why the project stopped.

When the overarching project left the villages, the funding stopped and so did the incentives to the farmers. Participants were left uninformed of this development,

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[1] Over the time the project was active, the payment size per tree varied slightly. 50 TSZ per tree, ≈ 0,02 USD, was the original payment level according to implementers. This sum was also the one most frequently reported to us by farmers.

which led to confusion, disappointment and, in time, to the conclusion that the project was over. Not only were people uninformed about what was going on in the project, they had not received information about the project's goals of sequestrating carbon and selling emission rights.

However, the project was not gone for good and, in 2019, the project re-surfaced. According to the head of development projects at the implementing local church), the project never stopped completely and soon it will be ready for the carbon market, which will generate substantial revenues that will be channelled to the groups. This information has, however, not reached the villagers. The former groups have been contacted and encouraged to take up tree planting again with the information that the quarterly payments will be reinstated, though with no mention of their size. Only a few informants report having been told that they will get compensated for the entire time the project was not taking place and no one reported any mention of the carbon sales.

As people had no idea that carbon revenues were coming, many villagers had already harvested the trees for firewood or building materials, or simply cleared them, either in disappointment or because the project seemed to be over and there would be no more benefits coming from it. Many have found great value in having the trees around, but others seem to have planted them only for the payments and hence chose to cut them down for better use of the land. Among those who were happy about the project, the provision of timber was one of the main benefits mentioned. However, if they had been aware of the revenues that the project was about to bring, it is likely that they would have prioritised sparing those trees, instead of harvesting them.

The project is organised at three different levels, with one international umbrella organisation that governs the local TPP-projects in four different countries and takes care of the carbon trade (not yet established in the Tanzanian project). At the national level, a sub-organisation is responsible for matters specific to the Tanzanian project and at the local level, the church is still the implementer of the project. The church takes their instructions from the national level and have limited decision-making power.

Tree Regeneration Project (TRP)
The other project that operates in the villages studied has been around for two years in V1 and five years in V2 and focuses on tree regeneration. The project encompasses a number of nature conservation techniques, the main one being the pruning of stumps in a way that allows them to regenerate into new trees. Stumps are usually abundant in the fields, as trees are typically cleared when land is taken into use. According to the organisation behind the project, the methods are cost

efficient and both the growth and survival rates of regenerated trees are significantly higher than those of planted trees.

The project uses a "training of trainers" approach to introduce the project locally. When the project is about to start up in a village, one "Champion Farmer" is selected from each sub-village. These persons receive training both on how to master the project methods and how to train others. They are then to practise the methods on their own farms as well as teaching others in their respective sub-village. As more people adopt the practices, the idea is that it will spread on its own merits when people start seeing the results on the farms.

Taking on the responsibility of being a Champion Farmer is voluntary and there is no compensation for the time it takes. However, some Champions receive smartphones along with a small amount of money (About 13 USD) to buy phone credits to report their progress to the implementing organisation. Others are provided with bikes to cover larger areas to train others in the techniques.

In addition to tree regeneration, the TRP is working with one method for rainwater conservation and one for forest conservation. For water conservation, participants are taught to dig trenches across sloping fields to stop, or reduce the speed of, running water and thus reduce erosion and loss of topsoil while keeping the water in the field. As such, the method is really about water management and not only conservation. However, as the implementers and informants consistently talked about it as water conservation, I use this term throughout the thesis. The technique has significantly improved, often doubled, yields according to the interviewed farmers. The forest conservation is managed by the Champion Farmers in the village. On a weekly basis, they go together to the forest to prune stumps and trees. As such, the forest conservation techniques are the same as the ones carried out in the fields, except they are carried out in the village forests by the Champion Farmers only. This is supposed to increase the growth speed and to regenerate the forests over time. Pruned branches become a source of firewood for the villagers. In most cases, people are allowed to collect dead wood from the forests. For this reason, Champions place the pruned branches around the trees. The leaves then become green manure for the trees and the branches can be collected by the villagers (or by Champions themselves) as the wood dries.

Whether these additional techniques are brought to the villages depends on which donor is supporting the project in the individual village. In the villages chosen for this study, both villages are supported by the donor promoting rainwater harvesting methods and one is supported by a donor promoting forest conservation. However, the project village that includes both additional techniques is so far still only starting up the rainwater harvesting and only the Champion has started to establish the trenches in her fields. Thus, in practice, one of the villages is practising rainwater harvesting and the other forest conservation. All villages within the project are being taught the pruning techniques.

So far, the project is only working with tree regeneration as a tool for nature conservation and local development. However, during the fieldwork, we were explicitly informed that the project would like to enter the carbon market, but that it is complicated to calculate the carbon sequestration for regenerated stumps.

3. Conceptual Framework

3.1 Livelihoods

The purpose of this study is to contribute to a better understanding of the role of power relations in local impacts from nature restoration projects. To determine the impacts of the study projects and to limit the scope of the thesis, a livelihoods approach is used. The study does not, however, provide a complete livelihood analysis. Rather, the use of the livelihoods concept is limited to uncovering the factors necessary to establish a base for analysing the interface between project activities and the everyday lives of local people through the lens of power.

At the core of livelihoods perspectives is the ambition to understand how "different people in different places live" (Scoones 2009:172). By considering local realities from local perspectives, livelihoods research aims to understand the complex combinations of activities that people use to utilise available resources in ways that support everyday life (ibid). Livelihoods research emerged from poverty research and starts from the understanding that poverty is multidimensional and diverse in the sense that it includes a multitude of context-specific strategies to make life function. This is in contrast to understanding the poor as a homogenous group sharing the same circumstances determined by the amount of money they have (Jacobson 2013). Furthermore, by focusing on the assets, strengths and capabilities that people have, the agency of the poor is emphasized (Rakodi 2002). This has been considered a more constructive starting point than perceiving the poor as deprived and lacking (ibid).

There are numerous definitions of livelihoods with some differences in emphasis and detail (Scoones 2009). The one used for this thesis is the following:

> The assets (natural, physical, human, financial and social capital), the activities and the access to these (mediated by institutions and social relations) that together determine the living gained by the individual or household. (Ellis 2000:10)

Assets are resources, typically categorised as five types of capital. Natural capital refers to natural resources as well as ecosystem services that can be utilised for the benefit of an individual or household. Physical capital can be infrastructure, such as roads or buildings, but also tools used for livelihood reproduction or material objects that can be used to acquire other capital. Human capital is the resource base stemming from people's qualitative capabilities, such as skills, knowledge or physical abilities, as well as quantitative, e.g. how many people can be mobilised

or how much time a person can be devote to a certain task. Financial capital is cash, loans or savings and social capital is the social relations and networks that may support an individual in various ways (Ellis 2000; Rakodi 2002).

The sustainability of livelihoods is a central topic in livelihoods research (Rakodi 2002). Definitions often focus on the long-term resilience of livelihood reproduction (Chambers and Conway 1992; Carney 1998; Scoones 1998). Carney (1998:4), for example, states that:

> A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base. (Carney 1998:4)

Hence, to determine if livelihoods strategies are sustainable over time, external factors that affect livelihood reproduction, e.g. by constraining or enabling access to assets or changing how they can be used, must be understood. This includes understanding how assets are institutionally embedded and access is determined by policies, institutions and processes, how it is restricted or supported by public services and infrastructure and what threats the groups' or individual's livelihood production is vulnerable to (Rakodi 2002). However, the livelihoods approach has been criticised for not sufficiently taking power relations into account (De Haan 2012; Van Dijk 2011; du Toit 2005). Van Dijk (2011) argues that while a livelihoods approach can reveal "the condition of inequalities households face and the activities they engage in", the social structures and power relations that regulate how, and which, households can access capitals are often overlooked. By broadening the analysis to include manifestations of power relations and the ways in which they affect people in the study villages I aim to address those limitations.

3.2 Power

Throughout this thesis, I use power as the lens through which the empirical data is understood. In this section, I first discuss the view I take on power, before presenting the analytical tools used to process the material.

The philosophical point of departure for this study is to understand power as an "ability to" (Pitkin 1972; Morriss 2002; Lukes 2005). That is, rather than considering power as a value-laden tool for controlling the actions of others, I consider it as the *capacity to manifest one's will in reality*. With this definition, I consider power as both dynamic and situational, with the capacity being contextually determined. Also, by considering power as a capacity, I mean to include the potential for it to be latent (Handy 1994; Lukes 2005). According to Lukes (2005), this means that an individual can have power at his or her disposal but choose not to use it. In addition, Handy (1994) suggests that the latent power that comes from possessing one or more sources of power (as described below)

could make a person more resistant to the influence of others and even influence the behaviour of others, without taking any direct action. By "manifesting will in reality", I aim to take into account the fact that power can be used to initiate change, to influence an ongoing process or to maintain the status quo. Thus, this formulation emphasises power as an *ability to* act rather than as having *power-over* others. *Power-over* is, from this perspective, considered as a subset to *power-to,* meaning that any attempt to exercise *power-over* someone must be preceded by, or stem from, a *power-to* do so (Pitkin 1972; Dowding 1991; Morris 2002; Raffnsøe 2013; Pansardi & Bindi 2021).

In the thesis, I use the term *empowerment* when discussing the projects. Building on the view on power outlined above, I consider empowerment as an increase in the individual's *power-to* act (Pansardi & Bindi 2021). Hence, from this perspective, power can come from institutional factors as well as from skills and knowledge gained through training.

Allen (1998) has nuanced the understanding of *power over* by separating domination, which is the oppressive use of power with negative effects for the subject, from the type of *power over* that can be beneficial for the subject, such as coaching, teaching, parenting, etc. In this thesis, I adopt this perspective to the extent that I do not rule out beneficial outcomes from the projects, even if they are exercising *power over* the local population. However, this does not exclude the possibility that the same acts of power are rooted in paternalistic or post-colonial patterns of thinking.

Handy (1994) draws on the work of French and Raven (1959) to outline six sources of power, which will be used to analyse the results in this study: physical, resource, position, expert, personal and negative power.

Physical power is comprised of force or the threat of force. Thus, rules and laws that, when broken, cause the subject to be deprived of freedom or receive physical punishment ultimately rely on physical power. In this study, physical power was not apparent in the projects, but is mentioned here, as it is implicit in the legal constraints that affect villagers' access to resources.

Resource power comes from controlling resources wanted by the group or person subject to the power. Handy (1994) stresses the relativity of power, meaning that the effectiveness of different power sources is situational. What allowed A to influence B may have no effect on C, if C is not interested in what A has to offer. Both material and immaterial resources can be sources of power.

Position power is the agency and rights whereby legitimacy is tied to a certain position. As Handy (1994) points out, a person occupying a leadership position may legitimately distribute tasks and organise work. Importantly, positions are often depots to certain information and the holder of such a position will control how that information is distributed. Furthermore, positions are also tied to *rights of access,* meaning access to formal and informal social networks, e.g. the ability to contact

higher levels of an organisation or membership in prestige groups (ibid). Lastly, position power is only as strong as its guarantor and ultimately relies on physical and/or resource power (Handy 1994).

Expert power is, as the name suggests, the legitimate power of a person or organisation recognised as having a special expertise. Expert power cannot simply be claimed. It has to be granted by the people subject to it (Handy 1994). An expert whose expertise is being questioned will have to resort to other sources of power to get his or her will through, e.g. the legitimacy of the position power that comes with being appointed an expert. Moreover, expert power can be gained with only a little more expertise than the other members of a group and, similarly, it can easily be lost to someone slightly more knowledgeable or skilled (Handy 1994).

Personal power is tied to a person's personality and is the ability to influence others simply by the merit of their charisma and social skills. While it can get a person far and, to some extent, replace other sources of power, personal power can easily be lost, as it too can only be given by others and may depend on giving a certain impression of success and self-confidence (Handy 1994).

Lastly, *negative power* – this is the power to disrupt, sabotage, delay or stop things from happening. While there is legitimate use of negative power, e.g. to veto a decision, it can also be used in ways that are forbidden e.g. to sabotage. Some positions within organisations function as filters where relevant information is selected to pass on to higher levels. This allows those in filtering positions to choose what information is to be passed on, left out or altered, making them rich in negative power. Negative power is mostly latent, expressed only when there is discontent or conflict. Commonly, according to Handy (1994), it is the subordinate's weapon against the superior.

To complement Handy's (1994) typology of power sources, I also make use of Lukes' (2005) concept of agenda-setting power. In contrast to Handy's (1994) sources of power, agenda-setting is a *type* of power that can come to the powerholders' disposal along with several, or arguably all, of the power sources outlined above. The concept highlights how power can be exercised by limiting the number of decisions that can be made and thereby expand the notion of power (*over*) from A making concrete decisions that B must observe for one reason or another to a less visible manifestation of power. By controlling the agenda, actors can put focus on issues that benefit them and exclude issues they prefer to avoid (Lukes 2005). For this study, I have chosen to highlight agenda-setting power as it plays an important role in how power flows throughout the project that is otherwise likely to be concealed because of its elusive nature.

4. Material and Methods

The data for this thesis was gathered during five weeks of fieldwork in Tanzania. In total, I spent eight weeks in the country and while each week provided learning opportunities and insights that supported the production of this thesis, five was spent in the villages included in this study. In this section, I present the methods used to collect that data and give an account of what it comprises. Lastly, I discuss some ethical considerations of the study.

4.1 Methods for Data Collection

4.1.1 Semi-structured Interviews

Starting from a constructivist worldview, I was interested in the different understandings and perspectives that people held regarding the projects rather than trying to find objective truth. For this purpose, semi-structured interviews with local farmers and project officials were chosen as the main method for collecting the data used for this thesis (Robson & McCartan 2016). The fieldwork encompassed 28 interviews, which provided insights into how different local actors understood and were impacted by the projects in their everyday lives as well as how the project was understood from inside the organisations responsible. Also, using this method allowed me to obtain the perspectives of marginalised people, such as widows, landless people and older people, who may be difficult to reach using other methods (Robson & McCartan 2016).

The interviews revealed contradictions and disparities in how the informants had understood and experienced the project. While such contradictions are fundamental for analysing the results, they also cast light on one of the central limitations of this method, namely that it will not provide facts. In one instance, three of the central figures for one of the projects provided three completely different versions regarding why the project was cancelled for some time, making it impossible to understand what had actually happened. On a similar note, though objective truth is not required, having in-depth conversations does not guarantee that people share *their* truths (Robson & McCartan 2016). Informants may feel the need to adjust their answers to convey a certain message or impression to the researcher. There could be numerous reasons for this, e.g. to protect themselves on a sensitive topic, to provide an answer that they think the researcher wants to hear or for strategic reasons, hoping to get some benefit or as part of managing local relationships (ibid)

The interviews lasted about one hour on average, with a few exceptions for interviews with some key informants, which lasted longer. However, including

introductions, it took much longer. I was made aware that the customs regarding greetings, introductions and pleasantries in general demanded that things were allowed to take time. The structure consisted of a crude checklist, which, for the farmers, included a livelihoods overview of the informant, a brief explanation of the projects by the informants, followed by in-depth questions about benefits, challenges and overall impacts, along with follow-up questions on interesting topics. In interviews with project officials, informants were asked to provide a background to the project, followed by questions on the rationale behind it, before turning to questions regarding what had been learned in the villages.

The sample was mainly selected through a mix of random, purposive and snowball sampling. The aim of the random sampling was to get an initial overview of the situation in the villages. When the issues of interest became clearer, the sampling became more purposive as I started to look for and identify informants with certain traits or knowledge. As I was not looking for representativity, I did not go to great lengths to ensure a proportionate or disproportionate sampling. However, to increase the likelihood of capturing more perspectives, I tried to balance my sample with regards to age, gender, socio-economic status etc. (Robson & McCartan 2016). Often, relevant informants were located through snowball sampling.

The normal procedure when coming to a sub-village would be to interview the local chairman first and ask for permission to interview people in the sub-village. He (I only encountered male chairpersons in the study villages) would then introduce me to one or more persons he thought relevant for our purpose. In most cases, they were and sometimes they could guide us further to the next informant. If not, we would walk around the village and select a farmer randomly to speak to or sometimes I would choose a person for a certain trait (e.g. age, gender, socio-economic status, see above).

All interviews, except for one, were held with an interpreter, translating between Swahili and English. This presents a number of issues to consider. First, the two-way communication with the informant will be skewed. Neither the interviewer nor the interviewee will receive the first-hand message from his or her counterpart. Instead, it will be filtered through the interpreter's understanding of the messages and then conveyed, with its accuracy relying on the interpreter's skill and understanding of the respective languages (the limiting factor being English in this case). This, of course, increases the risk of errors throughout the interview. Second, the conversation will be somewhat stripped of the non-verbal cues from the respondent, as he or she is not reacting to the interviewer's words, but to those of the interpreter. Also, non-verbal communication is embedded in culture-specific understanding (Archer 1997). Thus, coming from a different culture, I, as the interviewer, could miss important cues that are also difficult for the interpreter to communicate. The third point relates to both the previous two. Not having direct

communication where each word can be balanced to the situation nor a well-tuned sense of non-verbal cues for the cultural context can make building rapport more challenging. In addition, a decision by the respondent to trust me will also largely depend on his or her impression of the interpreter. This, however, can be both a strength and a weakness of working with an interpreter. In this case, it worked to my benefit and it seemed clear that the translator came off as likeable and safe to talk to. While these challenges are to some extent inherent limitations of not knowing the local language, I aimed to mitigate any adverse effects by working with an experienced interpreter who had good knowledge of the research process and had been professionally trained.

In addition to working with the interpreter, I conducted all interviews jointly with a student colleague. Having someone with a similar academic background with whom to discuss decisions to be made in the field, as well as the findings, greatly supported the fieldwork process. During the interviews, we would take turns asking questions and taking notes, allowing the person assigned to each task to be able to focus fully on one thing. Sharing the same empirical material brought with it the benefit that we could divide the workload when processing the material. Because there were two of us conducting the fieldwork, I use the term *we* when discussing joint actions taken in the field.

4.1.2 Participant Observation

Throughout the fieldwork, we tried to make use of the many walks we took through the villages to try to learn as much as possible about the local context and how things were done. Often, we were accompanied by locals whom we could ask questions about what we saw. However, on a few occasions, we were allowed to take part in activities, rather than just being shown. The purpose of participating in activities was mainly to understand what it takes to perform certain tasks. Knowing, for example, how physically demanding, time consuming or technically advanced tasks are, can let the researcher piece together how those tasks relate to other circumstances the informant experiences (Robson & McCartan 2016). In our case, we identified firewood as a major challenge for most villagers, tree pruning as an activity performed in both projects and some ambiguities regarding the forest conservation aspect of one project. Therefore, it made sense for us to join the women collecting firewood on one occasion and the Champion Farmer tasked with pruning trees in the mountain forest on another.

In the case of firewood collection, getting a sense of what tedious work it is to trek up the mountain in the hot sun through streams and rocky climbs, to chop the wood with a dull machete and carry it down to the village would, for instance, let us understand why it might be difficult for the older people to make those trips several times a week. Also, it was my experience that spending time with people in

their area and learning how they do things deepened a general contextual understanding in a significant way (see also. (Robson & McCartan 2016).

For the pruning, we had questions about the scope of the tasks expected from the Champion Farmers in their voluntary duties. Some Champions had complained about the risks involved and that it took up a lot of time. While the trip to the mountain did indeed answer those questions, it also provided insights into the technical aspects of pruning for tree regeneration and thus a deeper understanding of one of the projects.

One downside of this method is that we cannot know if, or how, our participation impacted the activities we were observing (Robson & McCartan 2016). For example, we don't know if the women collecting firewood took us on a trip that was representative of how they normally gather firewood or if they somehow adapted the route because of our presence. However, as our objective was mainly to get a sense of the tasks involved in the respective activities, the risk of our participation jeopardising the data of interest was low. Furthermore, by comparing our experiences with the rest of the interview material gathered from the villages we could make sure that the data was consistent.

Lastly, using participant observation was unparalleled as a way of building rapport. In both instances, we developed trustful relationships with the informants that led to valuable information as well as help to organise meetings and interviews.

4.2 Material

Most of the material for this thesis was gathered in interviews during the fieldwork. However, the thesis is part of the research project "*We are planting trees in Africa: Swedish discourses and local effects of carbon forestry projects in African localities",* which is funded by Formas and located at the Division of Rural Development, Swedish University of Agricultural Sciences. Hence, I had access to data collected by the whole project team during the first field trip to Tanzania for that project. I have participated in interviews in Tanzania conducted by the project members of the research project (asking some questions or just listening), seen video interviews with project representatives conducted after we visited the field sites and read transcripts of interviews conducted when I was not present. This material included key interviews with some of the leaders of the project organisations and provided invaluable insights for understanding the history and rationale of the projects. The field site visits encompassed both villages included in this study as well as one other village where the same projects are active. Seeing how the projects work in another village than the ones examined in this study deepened my understanding of the two projects as well as the local context. Also, having one more case to compare my results with was beneficial when trying to

make sense of the experiences gathered during the fieldwork. For my analysis, I rely mainly on my own data, but, for certain information, I have made use of the material gathered by the project team.

The interviews were complemented with documents published or provided by the projects. While I will draw on some of these documents in the thesis, these documents will not be presented in the reference list for anonymity reasons. The documents include a project description from the same project in Uganda (no project description was made available to us for the Tanzanian case), project brochures, information pamphlets, newsletters, etc.

While the material used for this study provided many insights into what it is like to live with the two study projects, five weeks is not enough to understand the entire complexity of a context. If I would have stayed longer, I would most likely have found out more about the projects. Therefore, this thesis can only go as deep as the fieldwork would allow, something the reader should be cognisant of when reading.

4.3 Ethical Considerations

Throughout the research process, I had to make several decisions with implications for the ethics of the study. In this section, I discuss the choices I made for the study and the effects they might have had for the study.

To protect all informants from any adverse effects from participating in the study, I have chosen to anonymise not just the interviewees, but the projects and the villages studied too. There are multiple reasons for doing so. First, as one of the projects (TPP) is just starting up after facing difficulties, the project staff are still organising and may not yet be running their operations entirely as intended. Therefore, while I consider the critique of the project put forward in this study justified, exposing it as a mismanaged project would be counterproductive, as it could reduce the ability of those running the project to improve and create benefit in the communities. Second, if the project were to face adverse consequences during this revamping phase based on this study, the project staff could become reluctant to accommodate researchers in the future. Third, as the villages host a limited number of projects, anonymising them may protect villagers with prominent roles in the projects from being recognised locally as well as protect the names of the projects. Fourth, full anonymisation makes sense, as the purpose of this study is not to provide an evaluation of individual projects, but rather to use them as examples of how power in nature restoration projects can be discussed on a general level. The downsides of this approach are mainly that other researchers looking into the same project cannot benefit from this study in the way they could if the project and village names were disclosed and that the thesis becomes less transparent to its readers.

Recognising that I, as a researcher, will affect the results and may leave a trace in the area, my main moral aim has been to do no harm. This means caring about the informants, both taking measures to ensure that they will not face adverse consequences for participating in the study and to make our interaction a positive experience for them. By necessity, as I could not know what consequences my actions would have, I strived to limit my impact. To the extent that I could control how my actions would affect local relations, I aimed to promote good communication between the actors involved.

Sometimes, however, ethical dilemmas present themselves when faced with local conflicts and power relations. In one instance, two informants expressed concerns about a Champion Farmer (see 4.3.2). The Champion was allegedly part of a corrupt local elite and would not fulfil any of his duties to teach the project techniques to the village farmers. As the sub-village leaders were part of this elite, the informants had nowhere to bring their complaints. They asked us to put them in contact with the implementing organisation. While this meant playing a role in a local conflict, we decided to honour their request. The contact information is publicly available, but the informants did not have the means to find it. Also, we had spent a lot of time with them, getting to know each other while collecting firewood from the nearby mountains and had thus developed a trustful relationship (see 5.1.2). Refusing to help them would have been to violate that relationship, especially as they already knew it would mean no effort on our part.

The risk of research causing harm to local realities is not limited to disturbing local relations or to informants being identified. Rather, it is embedded in the participant's experience of participation (Robson & McCartan 2016). To avoid unnecessary discomfort for the informants, we made efforts not to create false expectations about what our research could do for the communities. That is, we made clear that our research would not generate any direct benefits for them, but that we or our supervisor would inform the projects of our findings. We also made sure that all informants were aware of the overall purpose of the studies as well as of their right to not answer any of our questions and/or to withdraw from the interview at any point, for whatever reason (ibid).

Furthermore, as mentioned in 5.1.1, conducting interviews in a culture very different from our own, of which we have limited knowledge and where many people carry personal traumas, we, as researchers, had to pay close attention not to overstep any personal boundaries or trigger any unnecessary discomforts and instead make sure informants felt safe in any given situation. During the interviews, we did not encounter traumas related to the projects that would affect what we would ask about. However, when asking livelihood-related questions, several informants brought up personal challenges and losses that had impacted their lives in different ways.

5. Findings

To make sense of the role power relations in project impacts in the study areas, this section presents the findings of this study in three sub-sections. Each sub-section corresponds to one of the research questions stated in 1.2. The first section below is used to establish the livelihood impacts from the projects. In 5.2, I analyse how power relations are expressed in the projects and lastly, I discuss the ways in which these power relations affect how local people are impacted by the projects.

5.1 Project Impacts on Local Livelihoods

During the interviews, we asked about the different ways in which people make their living. Against the background of their answers, we then continued to inquire about the projects and what it was like to live with them. In this sub-section, I present the benefits and challenges that were pointed out by the villagers, but also by the implementers. As both projects work with trees, many of the impacts that were brought up are the same. Therefore, I start by listing the effects of having trees before presenting the data for the individual projects.

5.1.1 Trees and Livelihoods

The study identified firewood collection as one of the major challenges that people face. Being the primary fuel source, the consumption speed is high and normally, if collected from the surrounding forests, stock will have to be re-filled at least twice a week. However, when national, regional and local regulations on nature conservation are combined, they essentially prohibit all forms of tree cutting in the study areas and, in some cases, even the right of villagers to enter the forests (see also. Brockington 2007). In most cases, however, villagers are allowed to collect dry, dead wood. As everyone is dependent on the same resource, the demand is high and people will often walk for several hours to collect a few days' worth of firewood. Several informants told me that they do not feel there is enough dead wood around to cover their needs and, in order to get enough, they have to cut trees illegally. As people spoke about stealing as a common predicament that applies to

large parts of the village population, it seemed largely uncontroversial to steal from the village forests. However, the fines for being caught are high (between roughly 20 and 170 USD). It is possible to apply to the village government to take down trees, but there is a cost per tree and is not a sustainable solution for everyday consumption.

In some sub-villages, local leaders make informal agreements with the population to let them collect what they need without repercussions, provided that they do so responsibly, meaning taking only what they need and leaving little trace. One sub-village chairman put it plainly: "If you follow the rules of the government, lives will be difficult for the people" (22/02/2022).

Other leaders are not as understanding. In one neighbouring sub-village, the villagers complained that the leaders were very strict and, in order to steal, you would have to be up early in the morning before sunrise to not be caught.

Collecting firewood this way, legally or illegally, is tedious work. To make the long trip worth the effort, people will collect as much as they can bring back and, as the trek goes through mountains and valleys, it is not without risk.

Thus, having trees on one's farm or next to the house can save a significant amount of time and effort while also reducing risk, both in terms of getting into legal problems and the risk of having an accident in the mountains. For farmers with surplus firewood production, selling firewood can be a source of income. While we only encountered a few households producing firewood at a surplus, several of the interviewed farmers said the trees from the projects on the plots around the houses were enough to satisfy household needs.

In TPP, the firewood is supposed to come from pruning off branches, while leaving the trunk to grow bigger. The project allows for a 5% reduction of trees annually, thus providing the possibility to get some timber and building materials. However, when a tree is cut down, it will no longer generate money. So, the farmer is thereby incentivised not to harvest entire trees. Consequently, a farmer in TPP requires quite a large number of trees to cover the entire need for firewood.

In TRP, there are no restrictions regarding how the trees are used. The training does include some recommendations on how to get the most out of the trees (both firewood and timber), but no obligations are attached for people other than the Champion Farmers, who should keep their farms as demonstration examples.

In both villages, trees play a big part in reducing soil erosion. Damage from heavy rainfall poses huge challenges, affecting both buildings and crops. Clay houses, in particular, are susceptible to damage as rushing rainwater hollows out the walls and the ground beneath them. While brick houses are better protected than clay houses, the only reliable way to protect a house from erosion damage is to equip it with a concrete foundation, which is often too costly to be an alternative. Having many trees was said to drastically reduce the force of the water, as the canopies take the impact of falling water and reduce its speed. Also, tree roots bind

the soil, avoiding gullies from forming where water can gather and accumulate force. In the fields, reducing the damage from rushing water and improving the use of the available area by avoiding gullies allows for higher yields. Reduced erosion was brought up as one of the major benefits of the projects in almost all our interviews.

Bricks are produced locally in the villages by shaping clay into cuboids and burning them in kilns. This burning process requires high temperatures and, therefore, entire trees are used for firewood. Owning the trees and having them nearby will ease the process and help keep the costs down.

Trees also provide wind protection. This is especially important near houses, where strong winds may otherwise tear the roofs off.

Having access to shade was considered valuable, both in the fields and on the plots next to the houses, as it offers places to rest, away from the sun, either during long days of work or when relaxing and socialising in the front yard. Some interviewees would speak proudly of how pleasant the area around their houses was to relax in, as the trees provided shade. Shade can also be detrimental to most of the main crops grown. While some considered this a problem, others, including the implementers of TPP, claimed that if the trees were pruned so that the canopy was tall enough, the crops were not affected by the shade. However, as it takes time for a tree to grow tall, the problem should not be downplayed as a non-issue. It was one of the most frequently mentioned weaknesses of the projects and the only weakness regarding having trees in itself. Taking the effects of shade into account is necessary and has implications for how many young trees there can be in a field at the same time.

Most farmers mentioned the capacity of trees to attract rainfall as one of the benefits of the projects. While this has some scientific support (Ellison et al. 2017), the implementers of TRP told us that this is something that they tell the farmers as a long-term benefit and, while it is probably too soon to attribute good rains to the projects, they do not correct the farmers when they draw such a conclusion, as it may help to keep the enthusiasm for the project high.

Lastly, many farmers talked about having trees as a matter of general well-being as the trees made the villages more attractive. When asked to elaborate, the interviewees would point around them towards the lush and shady areas, explaining that these villages used to be like deserts, but now it looks green and beautiful, the air is nice to breathe and there are places to rest.

5.1.2 Livelihoods and the Projects

TPP

The early phases of TPP seem to have had a low impact in that the project did not introduce any radical changes to people's lives or ways of doing things. It essentially provided information about the benefits of trees and some methods to support the survival of the seedlings. The small groups then organised their own nurseries and how and where to plant the seedlings. After that, living with the trees, as shown above, seems to have been a beneficial and positive experience overall.

In some areas, there were challenges with tree survivability. The seedlings were prepared to be planted at the beginning of the rainy season to give them the best chance of survival possible, but, once the dry season came, many of the trees succumbed in the heat. This, of course, meant that a lot of effort and time was taken, which did not amount to much in terms of results. According to one official at the implementing organisation, tree survivability was between 30% and 50% on average, but could reach 60-70 % in very good years. However, working in small groups seems to have been a successful way to distribute the burden and to create a supportive environment for the participants.

The incentives played a big role in making people join and stay with the project but was too small to make a difference to people's economic situation. However, we heard about repeated cases of farmers cutting down on food production for the benefit of tree planting, determined to make the small payment per tree count. As the project disappeared, those farmers cleared their fields and went back to producing food. This example could point to an inherent risk connected to projects like the TPP, namely that people put their trust in foreign beneficiaries and risk becoming dependent on the incomes promised by projects. In this case, there seem to have been quite few farmers who reacted this way, the payment was not high enough to enable them to change their lifestyle very drastically and the project did not last long enough to make changing back to food production too difficult. If, instead, the same scenario would play out when the project has engaged large parts of the village populations, with revenues large enough to live off, over an extended period, the adverse effects for food security could be severe once the project decided to leave. Anderson and Carton (2017) report a similar situation, where participants in a small-scale carbon project are locked into a land-use system that does not promote food securit, despite project safeguards to avoid it, only to find out that the promised carbon payments fail to reach them, in time or at all.

It could be argued that, since there is a carbon market in place that local people could benefit from, giving people access to that market is a form of empowerment and contributes to the fight against poverty. While that argument may hold some merit, it is important to clarify what 'access to the market' means. In TPP, the groups planting the trees are indeed supposed to get a share of the carbon revenues.

However, in an interview with the project implementers, we were told that no numbers or details regarding the sales will be disclosed to the villagers. While the project markets carbon credits as a new virtual cash crop, the farmers will never know how much they are producing, how much they are selling or at what price. Thus, they will always be dependent on the project functioning correctly for them to receive their financial share and simply trust that the share they get is fair. In terms of livelihoods, this need not be a problem given that the villagers maintain diverse livelihoods. That is, if the carbon revenues are just a bonus on top of the livelihoods that are already sustaining them, the project could be highly beneficial and add significant securities and options for the farmers. If, however, the villagers stop producing food and/or start making investments that require the carbon revenues to keep coming, they would risk becoming highly exposed if anything happened to the project.

According to the founder of the project, carbon revenues usually make up about one quarter of the total value the farmers receive from participating in the project. The remaining three quarters stem from value created on-farm with best practices for conservation agriculture that are supposed to be taught by the project and that will increase yields several times over. However, during our interviews, no farmers reported having been taught techniques applicable to their everyday food production. Only one farmer reported having been taught how to increase the survivability of seedlings by shaping the soil into a bowl around the plant to keep rainwater from running off. While it is possible that this technique could be useful for other plants as well, it was not taught that way. It is unclear if the project aims to correct these mistakes now that they are back but, according to the local group coordinators who received project training just a few months prior to our visit, there was nothing in the training concerning conservation agriculture.

Lastly, as the project targets farmers to plant trees on their own land, landless farmers are not likely to be able to benefit from the project. Most landless farmers rent pieces of land a few years at the time before moving on to rent more fertile fields. Hence, they do not stay long enough to benefit from tree growing. However, according to the head of development projects at the church implementing the project, there are plans to work with village governments to allow project groups to plant trees in village forests, which could potentially create income opportunities for the landless if elite capture is successfully avoided.

TRP

Since there is no product to be sold, the logic of TRP is very different from that of TPP. The techniques, and the teaching and implementation of those techniques, make up the totality of the project. Like the TPP, the interventions do not introduce anything largely different from what the villagers are already used to. Rather,

especially for the tree pruning, it introduces techniques to save time (by not removing tree stumps from the field) and obtain useful resources (firewood, timber, fruits, fodder, etc.).

The project makes three claims about why regeneration techniques are superior to methods used in tree-planting projects that has implications for livelihood outcomes: that regeneration is cheaper, faster and that the survivability is higher. The claims rest on the fact that the stumps are already in place with roots developed than can sustain large trees.

Pruning also offers some options for the farmer to customise the use of the stump, depending on his or her needs. If most of the shoots are taken off, the ones that are left will grow thicker and bigger and will, in time, be suitable for timber. Of course, conversely, if many shoots are spared, they will not get as big, but, instead, the farmer would get a high number of branches suitable for firewood.

The fact that there are no requirements regarding how many trees should be regenerated, how close they should stand to each other or the distance between rows adds to the adaptability of the project, as the farmer can chose the number, type (limited to the tree species already in the field) and configuration of trees to suit the plan for the individual farm.

The trenches for rainwater conservation are considered to bring several benefits. As large parts of the villages are located in sloping areas surrounded by steep hills, the water from heavy rainfall can reach high speeds as it runs downwards. The water gathers in the trenches and is then filtered through the soil down the slope, as opposed to running on top of the field and bringing the topsoil with it. As the trenches are dug, the soil is put in piles alongside the pits to break the speed of the water further. When combined, these factors make both water and the fertile topsoil stay in the field, which, as mentioned, has led to doubled yields in many cases.

Breaking the speed of the water in this way is also an efficient method to combat soil erosion. Having one trench at the highest point of a sloping field makes it easy to direct any excess water to the sides of the field.

The downside to this method seems to be the timing it requires. Before the rain period starts, the ground is too hard to dig and, when the rains come, there is little time to dig trenches, as most effort goes into just preparing the fields for cultivation. While several interviewees said they would take up the method, given its potential, this indicates that the technique might be most feasible for households with a large enough workforce.

In the village that includes forest conservation, the Champion Farmers might be adversely affected by the project. Climbing the mountain is time and energy consuming and carries some risk. The hills are steep and covered with gravel, sand and big rocks. Where the vegetation is dense, one must take care to avoid thorns from bushes and trees, from eye height down to the ground. Few, if any of the Champions, own a pair of rubber boots and, most of the time, they will be ill-

equipped against snakes and thorns. While the commitment of being a Champion Farmer is voluntary, doing this once or several times per week without seeing any concrete benefits does make the responsibility significantly more demanding in villages that do the forest conservation practices than in villages that do not. However, one Champion mentioned that he expects his efforts to be recognised by the village leaders and that there would be good things coming out of it in the long term.

It should be emphasised that this work of the Champions does benefit other villagers who can gather firewood that they would not themselves be allowed to cut, as the pruning includes taking off live branches. This could be an important benefit for people worse off, e.g. landless farmers, who cannot grow their own trees.

Other than that, the project does not benefit landless farmers directly. However, it could benefit them indirectly. If more of the landowners can produce most or all of their firewood on-farm, landless farmers will have less competition finding firewood in the forests surrounding the villages.

In conservation areas that have been deforested, pastoralists are not allowed to graze their cattle until the trees have grown big enough to withstand the pressure from the animals. This may present challenges for pastoralists who are already experiencing difficulties in finding pastures for their livestock.

As has been shown in this section, having trees and tree products answers to real needs in the study villages, showing potential to positively affect natural, physical, financial capital. Accessing firewood, timber and fodder on-farm can save both time and money and protection from the elements can reduce risk in a multitude of ways, such as soil erosion reduction and wind protection. Comparing the two projects, TPP has the benefit of allowing farmers to choose the type of tree as well as its location, whereas, in TRP, farmers are tied to the stumps that are already in the fields. Furthermore, working in small groups in TPP does mitigate the workload for individuals and adds the social benefit of having support in the work. While this had positive effects on social capital, the effects seem to have been temporary and limited as none of the informants reported having stayed in touch with their tree-planting group during the years the project was passive. Other than that, the TRP requires less work and seems to offer significantly higher survivability of the trees. Also, TRP includes techniques to adapt the regrowth of the tree to suit different needs. More importantly, it comes without restrictions regarding how trees are used. Thus, farmers have greater freedom to plan their production of tree products to cover long-term needs, but also to respond to immediate ones. While the sustainability of the forest conservation initiative in TRP is somewhat questionable, as will be discussed below, it does provide a legal source of firewood for landless farmers and it has the potential to regenerate deforested areas. Weighing up other factors, TPP may provide additional income if the farmers manage to enter the carbon market as planned. However, as the highest value is supposed to come from

conservation farming techniques and such techniques are so far largely missing in the study project areas, the magnitude of the benefits is unclear. However, the water conservation techniques in TRP have proven highly potent, indicating that soil and water management techniques can be useful and make a significant difference in the fields.

5.2 Manifestations of Power Relations within the Projects?

5.2.1 Power in TPP

Even though most people were happy with the arrangements of TPP during the years it was active, the project left behind severed trust relationships, confusion and, in many cases, despair. Seemingly, the lack of communication between the project and the local population was the main reason for how this came to be. As already mentioned, the project left the villages without a word. This was claimed by the farmers and confirmed by the implementers. The payments stopped coming and, when villagers tried to get in contact with the actors responsible, they reached dead ends. Along with many of the findings concerning TPP, this points to the dynamics of position and resource power in the project (Handy 1994). In this case, position power is expressed in the projects' ability to make the decision to pack up and leave and to withhold that information from the villagers. Resource power is evident in their ability to stop the payments. Furthermore, the farmers inability to hold the project accountable points to the limited power residing in the position of the farmer.

This example was, as demonstrated below, not the only time the project failed to communicate to the villagers and lack of information has been a constant challenge in the project. The asymmetric access to information can be seen as repeated expressions of position power, where information clearly belongs to the higher positions of the project and never reach the lower ones. In several instances, implementers and responsible actors further up the organisation insisted that the farmers had been informed and instructed to understand how the project worked, what it aims were and, most importantly, what was expected from them. However, none of the villagers interviewed for this study had any recognition of the meaning of carbon, carbon sequestration, emission rights, conservation farming methods or that the project had any commercial intentions. Instead, the villagers, including

group coordinators who had received training from the project, believed the project was strictly an environmental conservation project. Several farmers mentioned "harvesting air" as one of the general benefits of trees, though no one knew what it meant and some guessed that it meant trees could purify the air. Only one of the coordinators had heard the word carbon during the training, but without any explanation of what it was.

From the implementers' perspective, simplifying the project into understandable terms was necessary. One project official stated, when answering how the local project coordinators were informed about the details of the project, that information had to be kept "in a nutshell, [when] you go into the details, you confuse them" (Head of development projects at the church 2022-03-06). However, the simplification itself seems to be what was confusing people. Several informants expressed concerns that the agreement seemed a bit too good to be true and some said that they felt like something was not being told to them. They feared they were being taken advantage of, either in the sense that the project was making money out of their work or that someone would suddenly turn up and claim the trees.

It is clear that the position of being a farmer in the project does not entail the rights of access to any of the levels where the information that could clarify their questions resides (c.f. Handy 1994). Even the group coordinators, who are supposed to be the links between the farmers and the project organisation, are kept unknowing about all the essential details of the project. Seemingly, almost all information about how the project really works belongs to the positions of the officials in the project organisations and they have decided not to pass it on downwards. Or rather, they seem to find doing so too time, money and/or energy consuming. In several instances, representatives for the project at different levels talked about informing villagers as if making them understand the circumstances of the project (e.g. regarding the carbon trade or conservation farming aspects of the project) is a difficult task.

Within the project, the power residing in each position is of course legitimised by the bureaucratic structure of the organisation (Handy 1994). Towards the villagers, it holds up because it is backed by a combination of resource power and expert power (ibid). The resource power comes from the trees and the monetary incentives. That is, the villagers can cope with not receiving full information as long as they get the trees and/or payments. This became evident when the payments stopped and several villagers exercised the one source of power they had, negative power (see 3.2), and cut the trees down. Put another way, the villagers can have the resources (trees and incentives) if they act as the project wants them to. The expert power comes from project officials being the ones bringing the solutions, who explain how things "are" (Handy 1994). One sign of expert power being at play is the fact that villagers accept that trees can harvest the air without question simply because the experts say so. This trust in outsiders seemed to stem from the farmers'

image of themselves – as the poor and uneducated. It seems as if to them almost anyone who claims to be an expert could be regarded as one because their expectation is that everyone knows more than they do. This was made clear to us in several interviews.

> I didn't understand them when they said harvest air because I did not go to school, I know nothing. So, what I know is just to plant trees. (Female head of household 14/2/2022)

Thus, it is not only the power residing in the positions of the project that dictates how the farmers relate to the project. It is also the power embedded in the subject position of the rural farmer in Tanzania and how they perceive themselves in relation to others.

The image of the farmers as poor, uneducated, engaging in unsustainable practices and in need of empowerment appears in most documents describing the project (e.g. brochures, project description etc.) While, indeed, most of the farmers in the area do experience a lack of money, have not gone through higher education and many of the forests have been under high pressure, entering an agreement from a position where you are described with those traits seems likely to entrench a power hierarchy between the project and the farmer where the latter has little possibility to influence the project.

At the same time, I argue, with the idea of farmers as producers of carbon as a new virtual cash crop and the project as a wholesaler, merely selling the farmers' produce on an international market, the project implies a business partnership. Similarly, as demonstrated in the quote below, the farmers are portrayed as agents in a business landscape who themselves will enter the carbon market with their own assets (trees), when in fact, they are entirely unaware of carbon as a commodity and of themselves as involved in any kind of business arrangement.

> […] after ten years, the groups can enter into the [carbon] credit business and benefit from the trees – from the business itself. So, Tanzania will have trees and will have some groups which have those trees which can now go into carbon business and they can benefit now better from the business. (Head of development projects at the church 2022-03-06).

However, the idea of a partnership is contradicted by the fact that everyone involved acts from the social understanding that the project is helping the least fortunate and the least fortunate are receiving help. Thus, the project appears more as a charity rather than a partnership. As recipients of charity farmers risk ending up in a position where they are expected be grateful for whatever the project bestows on them and where they are in no position to make demands.

The contradictions in the notion of a partnership are exemplified in the project organisation's decision not to disclose the details of the carbon trade once it has started. In any other producer-wholesaler relationship, the producer would at least be informed of the price per unit and how many units have been sold. If, instead of

carbon, the farmers were asked to produce mangoes, it seems unlikely that a wholesaler could simply take all the fruit and expect farmers to be grateful for the shade they get from the mango trees and even more grateful for a seemingly random sum of money every three months. The point of this comparison is not to say the arrangement is unfair in itself. After all, 70% of the revenues will (allegedly) go directly to the groups planting the trees and they receive full ownership of those trees. The point is, rather, that portraying the project as a business partnership implies a very different relationship between the project and the farmer than in the case of a charity. It implies, I argue, a relationship where the parties are in some sense equal, aware of the conditions of the partnership and in some way accountable to one another. Thus, it produces misrepresentations of the power relations that are in fact present in the project and conceals the low level of involvement from local farmers.

The comparison with mangoes is imperfect for two reasons that stands out as important. First, whereas mangoes could be sold, traded or used for food etc., carbon can be seen as a surplus commodity with no other uses than selling. In that sense, the project is only adding value to trees and while we did not see any fruit or nut trees being part of the project, farmers could in theory grow mango trees for carbon and still get the full benefit from the trees. Second, if a mango producer in the study area is unhappy with the market arrangement for his or her products, there would most likely be some ways that the farmer could sell the products somewhere else. In the case of carbon, selling through the project is the only available option. These differences are important because they point to a legitimising force in the structural configuration of carbon trading. I argue here that because carbon is a surplus commodity that farmers are not able to utilise in any other way than to sell it through a carbon project *and* since they cannot choose to sell their credits to a competing project, it becomes less controversial for the project to keep farmers uninformed about the product they are selling and under what conditions. The overall impression from the interviews was that both the church and the American organisation behind the TPP viewed these issues pragmatically and considered it of less importance if farmers know what carbon is, and that they are producing and selling it, as they will gain the project benefits regardless. From a power perspective, however, lacking this information puts farmers in a very weak position from which they are unable to make informed decisions with regards to the project.

Furthermore, while the share of 70% may be a reasonable, or even good, deal for the farmers, there is a risk that the arrangement could put them in an awkward position in relation to other powerful actors locally. Throughout the fieldwork, it was treated as common knowledge that district, ward and village government officials tend to want to be part of the economic activities within their jurisdiction and that a position at any of these levels grants power that can be used to sanction those who do not comply to their will (see also. Kijazi et al., 2017). In one interview,

a local TPP official confirmed that it is likely that funnelling large sums of money to the village farmers will stir up situations where leaders at different levels will want a share. The main solution to solve this is to let the farmers negotiate with the government officials. While the farmers will have the benefit of controlling the money, officials, especially from the district and ward levels, are acting from significantly higher positions of power. Such negotiations may become difficult for the farmers and, if the project does not include a strategy for how to manage the potentially adverse effects of these negotiations, it could be to the detriment of the farmers.

5.2.2 Power in TRP

As the project consists of agricultural techniques, power is concentrated in those with the knowledge of how to use them. By using the training of trainers method, where volunteering villagers who are elected Champion Farmers acquire the knowledge at an early stage, much of the power is transferred from the project organisation to the village representatives. However, by setting the agenda for what is being taught and how, the project is exerting influence on the lives and actions of the villagers, no matter who conveys the knowledge (c.f. Lukes 2005). This power allows the NGO behind the project to influence the agricultural development of the villages and of course also to set the practical premise for the commitment of the Champions. For instance, Champions in V1 commit both to the water conservation and the forest restoration activities. For the water conservation, the project provides some technical equipment to take the measurements required. For the forest restoration, however, the project decides that, even though Champions complain about thorns and snakes, they will not provide rubber boots. The logic for this is that all the project interventions should be implemented based on local capabilities to the highest degree possible for it to be sustainable, but it shows the position and resource power of the project even after the knowledge of the techniques has been transferred.

Donors are also quite influential when it comes to setting the agenda. While TRP's focus is the pruning of the stumps to regenerate trees on fields, the forest conservation and water management techniques are introduced by donors and collaborator organisations, but under the TRP umbrella. Hence, all villages where the TRP is active will be given the opportunity to receive training in the tree-pruning techniques from a Champion Farmer. However, whether or not a village receives training in water conservation and forest conservation techniques depends on what donor or partner organisation are collaborating with the TRP in that specific village. Thus, depending on which donor organisation is involved in a particular project site, the benefits as well as the risk, difficulty and effort of the voluntary work differ. The forest conservation is an initiative from an international donor

organisation that uses growing trees as a central aspect of its marketing. While there are several communal benefits to having well-managed forests around the villages, it is a significantly larger commitment for the Champions in V1 compared to those in V2, as the latter is not funded by the same donor. Both villages included in this study will get access to the water conservation technique. However, during the fieldwork and interviews with the implementing organisation it became clear that not all TRP villages do. That means that in villages where the water conservation technique is taught, farmers can get the tools to double their yields, while a neighbouring village, in which the project is funded by a different donor, may not.

Once the training of a Champion is complete, he or she gets access to an array of power sources. First, with the knowledge of how to use the techniques, the Champion holds resource power. However, as his or her task is to share the knowledge with as many people as possible, this power should be disseminated rather quickly.

Second, being elected for the position and trained by the project gives the Champion legitimacy as a teacher and hence position power. The Champion will have the authority to organise and carry out trainings: in other words, to tell people where to be, when and instruct them in how they should manage their farms. If, later, the other farmers have questions about implementing the techniques on their own farms, they will turn to the Champion as the official contact person supposed to provide answers. If the Champion cannot provide the answer, he or she will contact the project organisation to get it. This means the rights of access to the implementing organisation belongs to the position of the Champion, which, as will be shown below, may be an important factor regarding how the power relations play out in the villages.

Third, the role as teacher must eventually be legitimised by expert power. As participation and implementation of the project techniques is voluntary and free for villagers, the Champion's position power alone cannot make people adopt the techniques. The farmers must recognise the expertise of the Champion and decide whether to bring the techniques into his or her own farm (c.f. Handy 1994). If they do, what the Champion says will impact how farmers organise their most important livelihood activity, farming.

The success of the Champion will be affected by his or her personal power, that is, the popularity or charisma of the person (Handy 1994). This is not a source of power that comes with the position, but, as Handy (1994) points out, personal power may be enhanced by status stemming from other sources of power, such as position or expert power. During our interviews with the implementing organisation, it was explicitly expressed that one reason for electing Champion Farmers in a village meeting is to get persons who are recognised and trusted by the community.

Lastly, Champions have negative power. That is, they may choose not to train or help people. As they are the link between the villages and the organisation, they

also have the power to regulate what, if any, information reaches the implementers. In one sub-village, the Champion was said not to live up to any of his duties. According to the informants, he would not train any villagers and had only been appointed Champion by a corrupt village elite looking to reap any possible benefits from the project. Several interviewees expressed wanting to learn the techniques of the project, but going against the corrupt elite directly was not considered a viable solution. Even though they wanted to contact the organisation to report the Champion and to get access to the training, they did not know how to go about getting in contact with them (see 5.3).

In most places, however, the relationship with the Champions seemed unproblematic. Because the benefits, apart from the techniques, were very limited, there was little possibility of gaining a strong position where overt power could be exercised over others. Instead, the knowledge passed on by the Champions seemed to add tools to the farmers' toolbox, empowering them to produce tree products on-farm in a cost-efficient way or to increase their yields with the water conservation techniques. For the farmers, learning the techniques is voluntary and there are no obligations to implement them once they have been taught.

When it comes to the forest conservation practice, it becomes less straightforward. While there is indeed potential community benefits, not least firewood provision for those worst off who may be able to reduce the amount of firewood they have to steal, it is an intervention that has been fabricated far away from the villages, at least partially for the marketing purposes of an international company. The villages in which the TRP is funded by this company cannot choose to only undertake the tree regeneration and water conservation trenches. Instead, the Champions must devote massive amounts of time and effort over several years for the village to be part of the project. In some of the interviews, the Champions claimed they would not continue the work in the forests once the project was over. This, then, does not constitute adding a tool to the toolbox. Instead, it represents a top-down initiative to make individuals work because powerful actors believe it is a good idea and stand to gain from it. Here, we see an example not just of how power is exercised over local people, but also the resource power that lies within the knowledge of how to use the techniques.

Leadership formation is emphasised in TRP and the organisation claims to be devoted to a style of leadership called "servant leadership". In an interview with the founder of TRP, servant leadership was described as standing in contrast to the autocratic leadership models inherited from the colonialists, instead aiming to build legitimacy through trust and participation.

> Servant leadership means humble leadership. […] It means recognising the power of the individual's talents and making room for them to be used for the common good. It is participatory leadership. /---/ Your authority [over] people should come from your service, accepted service, by the people. When you say you are a servant leader, you are a serving leader, not a domineering leader. (Founder of TRP 2022-03-02)

Reflected in this quote is an ambition to empower people and harbours striving for democratic legitimacy and downwards accountability, potentially strengthening the position power of villagers. While the forest conservation initiative does leave more to wish for when it comes to inclusiveness participation in designing the activities, it seems the project succeeded relatively well in embodying this mentality, judging by the interview material from the villages. In all sub-villages except one, the farmers reported feeling secure in bringing up questions with the Champion Farmers and trusted that their questions would be answered, if not by the Champion, by the TRP organisation.

5.3 The role of Power Relations in Project Impacts in Local Contexts

In the previous section, I showed how power relations in TPP are expressed in part by limiting the villagers' access to information about the project. Not knowing essentially anything about the project forces farmers to live in uncertainty and makes it impossible for them to make informed decisions on how to act in relation to it. The fieldwork presents several cases in which farmers who have been determined to make money from the project have not been able to because they lack relevant knowledge of the conditions of the project. The most dramatic cases were the farmers who planted lots of trees and later cut them all down in disappointment of the project's disappearance. Now, as the project is coming back after more than a decade of silence, the project organisers claim that those who have saved their trees will receive large sums of money. In less dramatic cases, farmers may still have trees left, but have harvested more than they would have if they had known that they could still make money from them. In yet other cases, people have cut their trees and regenerated them with the methods of TRP. As they were not aware of the carbon trade aspects of the project and thought the trees were only a matter of environmental conservation, they were surprised to learn that their trees are no longer eligible for payments now that the project is once again counting people's trees. This shows that information belonging to the position of the farmer is not sufficient to make the farmers benefit from the project. Or rather, if they do, it will be due to luck, as they are not aware of the conditions that determine whether they are eligible to receive payments or not.

The lack of appropriate rights to access the levels within the organisation where relevant information can be found can, within the project, be traced to the weak position power of the farmer. But, if the scope is widened to consider the organisation behind the project as a political power player locally, effectively

altering "the rules of the game" on how local resources are managed, the lack of representation and accountability can be seen as an impingement on local citizenship and democracy (Samndong 2016; Ribot 2003; North 1990). The coordinators for the tree planting groups could, on the other hand, be seen as democratic representatives, but, as the results have shown, they are too uninformed to be able to influence the project in a meaningful way. Thus, as the TPP is operating separately from the village government, there is in practice no mechanism in place to ensure downwards accountability. This could make the project more susceptible to abuse from other powerful actors. For instance, as the farmers themselves will be responsible for negotiating what, if any, share of the carbon compensation that should go to local political levels, there will be no structure for transparency of how such negotiations are conducted and what pressures may be exerted. It should be recognised, however, that operating outside of the local and regional institutions, with direct contact with the farmers, is a way for TPP to make sure that money is not lost to corruption along the way and, due to the limitations of this study, it is not clear whether TPP will work out legal arrangements on higher political levels to adjust for the risks of elite capture of project benefits.

One of the central claims in TPP is that the project will empower local people to improve their situation. As villagers will be getting both the trees and 70% of the revenues from the carbon sale, the arrangement seems to be designed with local benefits in mind. However, as people are unaware of what mechanisms are generating the money they hope to receive and thus depend on the project to receive it, they are not in control of their access to the market, which gives cause for questioning the level of empowerment that can be gained from the project (Mustalahti & Sarobidi Rakotonarivo 2014). Even if they had that awareness, market access, and with it arguably the potential for empowerment, is limited by the farmers lack of options for where to sell their carbon credits. Also, importantly, the project has failed to transfer the knowledge of both conservation agriculture techniques, which were supposed to bring the biggest benefits to the farmers, and the HIV/AIDS prevention training.

At the same time, working small scale with farmers on their own land, giving them the ownership of the trees, separates TPP from the heavily criticised large-scale projects commonly associated with "green grabbing", where local people are dispossessed as powerful actors establish biologically poor tree plantations (Fairhead et al. 2012). In successfully conveying the benefits of trees, the project has aligned real local needs and wishes with project goals and this seems to be the single most important aspect for the sustainability of the project as well as a source of empowerment (see Thompson et al. 2011).

In TRP, the situation regarding information looks very different, partly because, as mentioned, the techniques make up the entire project. Hence, once the Champions are trained, the control over the access to the benefits resides at the

village level. However, with the Champions as the only links to the project, the average villager will, in similarity to TPP, lack the rights of access to higher levels of the organisation, which proved to be problematic when the Champion did not live up to the task. In this context, it should be mentioned that TRP is in its finishing phase in V2 and has largely left the village to carry on by itself, which could explain the project's lack of presence in the village. This does, however, point towards the importance of having sufficient mechanisms in place to ensure accountability towards the people participating in the project (Ribot 2003; Mustalahti & Sarobidy Rakotonarivo 2014). At the same time, the results of this study show that, even though Champion Farmers gets access to several sources of power, they have small chances to abuse their position and have little to gain from doing so. What happened in the sub-village where the Champion (according to several informants) did not fulfil his task was simply that people did not learn the techniques. This is, of course, a loss and of great disappointment to all the villagers that want to learn from the project, but it does not seem to cause any more damage than maintaining the status quo and brings no benefits to the Champion Farmer.

While the forest conservation methods do bring some benefits to the community, they appear to be based on the donor's and the implementing organisation's understanding of how local problems should be solved and not on the understanding of the local people. This is reflected in how the Champions speak about these activities and the fact that many of them do not feel inclined to continue once the project is finished. It is, of course, impossible to say if the situation would have been different if the initiative had been designed with a higher degree of local participation (Agrawal 2021; Fischer 2016). However, the lack of representation in decision making offers no apparent space to integrate local initiatives or knowledge into the design of the intervention and thus the potential of doing so is left unexplored. Thus, the power relations which allows donors and implementers to set the agenda without local input is likely limiting the benefits that local people can get from the project.

6. Conclusions

The purpose of this thesis was to compare manifestations of power in two Tanzanian nature restoration projects to better understand how power relations are related to project impacts in local contexts. To do so, a livelihoods approach was used to establish project impacts before conducting a power analysis. The theoretical application has highlighted the value of including a power analysis to understand local impacts from projects. While the livelihoods approach provided the roadmap for unveiling important aspects of the circumstances in people's everyday lives, simply using livelihood metrics to understand project impacts could potentially skew the results by concealing the underlying power relations in the projects. For instance, TPP showed positive effects on social, natural and physical capital and is likely to increase financial capital as well. Still, the study has shown significant problems with the implementation of TPP. Hence, a strict livelihoods analysis without special attention to power could produce a misleading image of the project.

The study has shown two projects with the potential to benefit local livelihoods by introducing different ways of managing trees. The results suggest that empowering farmers with knowledge of how to realise tree benefits themselves and adapt the use of the trees to their own needs is appreciated and widely adopted in the villages. Also the thesis has further underscored the already widely accepted usefulness of trees and shown that local people can be satisfied having gained knowledge of how to utilise them, even when many aspects of project implementation are failing. Both projects focus on improving conditions for individual farmers on their own land, which, based on the findings, can help farmers overcome livelihood constraints due to national regulations on forest use. While TPP seems highly mismanaged and TRP quite well managed, their net outcome in terms of concrete benefits is similar. They have both successfully conveyed the usefulness of trees and encouraged people to pursue growing them. This could speak to the point that introducing trees in local communities is an achievable and manageable goal. However, the differences in management approach in the two projects cannot be overlooked.

TPP serves as an example of how an ambitious project with seemingly genuinely good intentions is more or less ruined due to a lack of communication. As there is no coherent picture of what happened in the Tanzanian project, it is not possible to make sense of why the project developed the way it did. The interview material suggests that the lack of information in part stems from an unwillingness to confuse the farmers with details of the commercial intentions of the project. However, these cautions seem to have caused the farmers more confusion rather than sparing them. Furthermore, the implementing organisation claims that the farmers know about the

planned carbon trade as well as the techniques for conservation agriculture, something that none of the interviewees recognises. Assuming that the implementers of TPP are telling the truth and really have tried to inform the villagers, this calls for greater attention to the power that rests with the information holder as well as the de facto agency of the beneficiaries. That is, the farmers cannot be considered empowered until they have understood the information and thus have the power to put it to use.

Conversely, the study indicates that the transfer of power – in the form of knowledge and information – to the local level at an early stage of the TRP, along with minimised incentives for elite capture, has supported capacity building and been important factors for the success of the project. The devolution of power seems to be encompassed within the management style of servant leadership, used by the TRP.

In the case of TRP's forest conservation efforts, the implementation appears to be designed with less attention on local conditions and more on the needs and wants of donors. The top-down implementation approach differs from the other initiatives in TRP and does not seem to emphasise local capacity building. Rather, it is based on having the Champion Farmers regularly performing unpaid physical labour for the communal good. This could indicate a schism between the interests of powerful donors, on the one hand, and those of local people, on the other, that ends up having negative effects for the sustainability of the projects.

While the two projects share many features, the carbon component of TPP makes it vastly more complex than the TRP. Global anthropogenic climate change and its connection to local forests is difficult both to explain and grasp, which, as we have seen in the TPP, can present challenges for implementers as well as local farmers. Furthermore, carbon forestry projects usually demand some degree of permanence in land use planning over far longer time periods than what is customary, often overlapping generations (Leach & Scoones 2015). Also, as TPP has exemplified, carbon projects that operates in parallel with the local government, introduces new sources of revenue and their own polity for natural resource use are, in fact, decision makers who affect local conditions and power relations. As such, their impacts go beyond the effects of simply planting trees and, I have argued, they play a role in supporting or undermining local democracy.

The difference in complexity in the projects is relevant for this study seeing as TRP is determined to become a carbon sequestration project and enter the carbon market. This raises the question: What will happen then? How will TRP's organisational platform hold up against challenges like the ones listed above? One of TRP's strengths is its simplicity, that people can adopt the techniques and adapt them to their liking with no strings attached. Such an approach will likely be difficult, if not impossible, to uphold when there are demands for verification of carbon sequestration results over time. Future research on what happens when

conservation and development projects transition into carbon sequestration could provide useful insights of the specific bottle necks and circumstances that have made carbon projects so difficult to align with local needs and wants.

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Popular Science Summary

Nature restoration projects are becoming increasingly popular in the global community, as they are seen as multi-functional solutions for some of the worlds wicked problems. Most people have probably heard the slogan: "We need to plant more trees!" Attributed the potential to combat climate change, poverty, bio-diversity loss and to aid in climate change adaptation, economic development and empowerment of local communities, tree-planting projects attract millions of dollars annually, and they are still on the rise.

However, critics have long claimed that the success-stories surrounding these projects are often too good to be true and there is now a robust body of research to show that many projects fail to deliver the combination of benefits they were set out to produce. Furthermore, researchers have shown that marginalised groups and communities are often the ones that are left without benefits and instead, it is the interests of powerful actors that are prioritised.

In this study, I position myself between the proponents and the critics of these projects, realising, on the one hand, that the world could indeed benefit from having more trees and that local communities around the world depend on access to forest products for their livelihoods. On the other hand, I take foothold in the critique, recognising that unless significant attention is given to ensure local benefits, nature restoration projects run the risk of becoming exploitative tools, reproducing post-colonial North-South power relations.

The concept of power is important because the impacts of project interventions are determined by their design and implementation, which in turn is shaped by power relations running from supra-national bodies like the UN, down, via national governments and private actors, to the areas where local people live their lives with the projects. Therefore, this thesis explores and compare manifestations of power in two tree restoration projects in Tanzania, to better understand how power relations are connected to project impacts in local communities. One project is a climate compensation project, planting trees to generate carbon emission credits to be sold on the global market. The other project is a nature conservation project working with natural regeneration to increase the number of trees in the villages. Both projects emphasise empowerment of local communities from tree benefits. The study is mainly based on interviews with local farmers and representatives from

the implementing organisations, carried out during five weeks of fieldwork in Tanzania.

The study highlights the power residing in information and the importance of providing adequate access to relevant information to enable local farmers to manage projects sustainably as well as to benefit from them. It also points to the need to ensure appropriate mechanisms for downwards accountability in order for local people to raise concerns, participate and influence the development of the project. Lastly, I discuss differences between different type of projects, arguing that the higher complexity of climate compensation projects connected to the carbon market e.g. due to longer timescales and the need to verify carbon sequestration results, may make them more difficult to align with traditional ways of managing landscapes and livelihoods.

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