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**Stakeholders' Attitudes, Values and
Norms towards Governance of
Protected Areas
in Zambia.
- An Institutional Analysis**

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International Environmental Studies

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- An Institutional Analysis**



Master's thesis

by Camilla Tysland Lillehagen

Norwegian University of Life Sciences

Department of International Environment and Development Studies

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Declaration

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

Date.....

Signature.....

Camilla Tysland Lillehagen

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Abstract

Zambia has acknowledged the need to improve the livelihood of people living in or near protected areas, in order to decrease illegal use of natural resources. Community Based Natural Resource Governance Management (CBNRM) is seen as a possible solution, as it promises to increase the livelihoods of the local communities by involving them in resource governance. CBNRM was therefore institutionalized in the *Zambian Wildlife Act* in 1998 and is currently part of their conservation strategy for protected areas including Game Management Areas (GMA). However, the approach has not delivered the promised results.

To study why this approach is not succeeding in Zambia, this field study focuses on the environmental governance regime in Namwala GMA outside Kafue National Park. Semi-structured interviews are used to gather both qualitative and quantitative data. The study focuses on identifying the limitations and challenges in the regime to understand how improvements can be made, with emphasis on stakeholders' attitudes, values and norms and how these characteristics influence different stakeholders in the assessment of governing the valuable resources.

The results from this research include limitations in the resource regime that hampers the interaction between different stakeholders and causes poor management. Both local people and natural resources are still suffering from poor management and the community-based approach is not implemented sufficiently. Local people are often unaware of the policy governing the area and the participation structure that is supposed to include them in governance and thus improve their livelihood. The management and staff are unable to build capacity, share benefits and devolve authority to the complex local institution. Negative attitudes exist between the local community and the management and staff, due to poor management of illegal activities. Evidently, not much has been done in Namwala to implement CBNRM and the GMA is still managed through a top-down approach, marginalizing local people. For CBNRM to deliver, it is necessary to build capacity and competence among management and staff so they are capable of initiating actions recommended by CBNRM. They also need to consider the social structures and informal rules in individual GMAs, to involve local people in governance of natural resources.

KEY TERMS: Institution, participation, resource governance, ZAWA, Namwala Game Management Area, Zambia

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Abbreviations

AMADE	The Administrative Management Design for Game Management Areas
CBNRM	Community Based Natural Resource Governance
CRB	Community Resource Board
CS	Community Scout
DNPW	Department of National Parks and Wildlife
FR	Forest Reserves
GMA	Game Management Area
LIRD	Lungwa Integrated Resource Development Project
NGO	Non-Governmental Organization
NORAD	Norwegian Agency for International Development
NP	National Parks
NPWS	National Parks and Wildlife Services
PA	Protected Areas
UNDP	United Nations Development Program
USA	United States of America
USAID	United States Agency for International Development
VAG	Village Action Group
WPO	Wildlife Policy Officer
WWF	World Wildlife Found
ZAWA	Zambian Wildlife Authority

1 CHAPTER 1: INTRODUCTION

Environmental degradation and resource depletion in developing countries have caused growing international concerns regarding poor governance of protected areas and increased the effort to implement local community governance of common pool resources. The state is criticized for having a top-down approach to governance and ignoring local institutions and people's informal attitudes, values, norms and conventions/rules in regulating use of the common pool resources. Empirical evidence indicate that local community governance may be a more productive and legitimate way of securing biodiversity conservation than a top-down approach by the state (Mbaiwa, 2004a).

Increased participation in community-based approaches is seen as a possible solution to reach conservation goals, as it promises to achieve both rural economic development and sustainable management of natural resources (Mbaiwa, 2004a). The participatory approach notes that rural communities living in wildlife areas should be given the responsibility to manage and benefit economically from wildlife resources in their local environment. If this approach is successfully implemented it can help address the following issues; reduce the threat of species extinction due to over-utilisation of wildlife resources through poaching and unsustainable resource use; improve the ability of the central government to protect its declining wildlife resources; reduce land use conflicts between rural communities living in wildlife areas and wildlife preying on livestock and damaging crops; improve the connection between wildlife conservation and rural economic development (Mbaiwa, 1999).

Local participation has for a long time been identified as the leading ideology linking conservation of natural resources and development for the local people (Brandon & Wells, 1992). However, the approach is starting to raise critical concerns, since the promises to solve challenges of biodiversity conservation, secure environmental services and contribute to local livelihood improvements are not being delivered. It appears that the application of political measures and instruments are extremely imprecise in reaching these targets (Vedeld, et. al 2012).

Various attempts to implement participatory and community-based approaches have been made all over the world. This has led to a debate on appropriate policy goals, measures and instruments to achieve successful policy outcomes. The general conclusion is that a better-suited, comprehensive and appropriate policy is needed to enhance the conditions for both biodiversity and local communities. Thus, this

research investigates how improvements can be made, by analysing a resource regime governing a protected area in Zambia and studying stakeholder's interests, attitudes, values and norms towards the protected area and wildlife policy as these characteristics highly influence policy implementation and outcomes. Mapping these characteristics attached to the GMA and the wildlife policy will help to detect missing gaps in the resource regime and thereby guide policymakers in development of a more appropriate policy and implementation. The specific analysis is based on a case study from Namwala Game Management Area outside Kafue National Park in Zambia.

1.1 Background

This section will provide background information on how the current governance approach of protected areas in Zambia is delivering to meet the concerns of biodiversity conservation and poverty alleviation.

1.1.1 Protected areas in Zambia

Zambia's most important protected areas (PA) include among others; National Parks (NP), Game Management Areas (GMAs) and Forest Reserves (FR), which cover large land areas in Zambia, see Table 1.

Table 1: Protected areas in Zambia, 2016

Protected area	Number of PA	Area coverage (km ²)	Area coverage (%)
NP	19	63,580 km ²	8,5%
GMA	35	167,557 km ²	22,3%
FR	490	75,000 km ²	10,2%

Source: Global Environment Facility (2004)

The numbers and areas covered by FRs are not precise due to frequent de-classification, new additions and the lack of an updated database in the Forest Department. There are also five other categories of public-managed protected areas in Zambia; wildlife sanctuaries, bird sanctuaries, protected fisheries, Ramsar sites (Wetlands of International Importance for Migratory Birds) and Heritage sites. Other protected areas include game ranches, botanical and zoological parks (Global Environment Facility (GEF), 2004)

Among the different categories, NP has the strictest level of protection. The NP is protected by a legal system with laws against conversion and extractive activities to protect biodiversity and thus enhance conservation and facilitate tourism. GMAs are protected to a lesser degree with laws that give limited protection to classified game species, but where also licensed hunting is allowed. Conversion to agriculture and other land uses is also allowed under GMA legislation, although only with governmental approval (GEF, 2004). The aim for the GMA is to provide an area where humans and animals can live side by side.

1.1.2 Game management areas in Zambia

GMAs are buffer zones around NP's where wildlife is protected to a certain degree, but the areas are also used for regulated hunting and safaris to benefit the communities and wildlife resources. The GMAs were formally established in 1971. However, the concept of GMAs goes back to the 1940s, when a few areas were declared as Controlled Hunting Areas to allow non-residents a strictly controlled hunt. This was later reclassified; allowing controlled hunting in general, thus declared as GMAs (Simasiku, P., Simwanza, H. I., Tembo, G., Bandyopadhyay, S., & Pavy, J. M., 2008). GMAs are currently an important part of Zambia's conservation strategy. In the 1980s it was considered a sufficient measure to achieve joint management and benefit sharing arrangements between the government and local communities. However, a review program of GMAs performance showed that no major accomplishments had been realized in poaching reduction or in involvement of local communities (Simasiku *et al* 2008).

Simasiku *et al*, (2008) highlight the under-performance of GMAs on ecological and sociological aspects compared to neighbouring countries. According to their research, more than half of Zambia's GMAs wildlife populations were deteriorating. The extent of this may be even worse, since many GMAs do not have an exact register of the numbers of different species. The main reason for the large decline is the same as in NP, namely poaching and land clearing. Hunting blocks are affected and twelve GMAs are currently in danger of being depleted. Increased settlements, cultivation, traditional land claims and uncoordinated planning by government departments are shrinking the land and natural habitats available for wildlife (Simasiku *et al* 2008).

Communities situated in and around GMAs are characterized by high poverty levels. Compared to other rural communities, the welfare level of communities in GMAs is 30% lower than the rural average in Zambia. In theory, it could be beneficial to live in GMAs, but elites and non-poor people capture the benefits, while poor people often suffer heavily from costs of living close to wildlife (Simasiku *et al*, 2008).

1.1.3 Management of protected areas in Zambia

Traditionally, the local chief in the different villages were responsible for distributing access to natural resources and wildlife among his people. This was changed in the 1940's, when The Law on Game Reserves was implemented, shifting the formal ownership and access of wildlife from local people to the State. This process of marginalizing local people in the management of wildlife and natural resources has continued and has complicated the relationship between local people and the government (Government of Zambia & UNDP, 2010).

The government was for a long time responsible for the governance of protected areas in Zambia, but in 1999 The Zambia Wildlife Authority (ZAWA) was established under the Zambia Wildlife Act, No. 12 of 1998 as an autonomous body replacing the former Department of National Parks and Wildlife Service. ZAWA is managed by its own board of directors under the policy guidance of the recently established Ministry of Tourism and Arts. ZAWA is responsible for the management of wildlife in protected areas such as NPs, GMAs, wildlife sanctuaries, private wildlife sanctuaries and conservancies (“Zambian Wildlife Authority”, 2016). ZAWA’s main objective is to preserve Zambia’s wildlife and natural resources for current and future generations in cooperation with local communities. (Government of Zambia & UNDP, 2010).

The governance system of protected areas in Zambia is however currently under transformation, moving the administrative power from the semi-private organization ZAWA back into the government. Deputy Minister of Tourism and Arts Patrick Ngoma was quoted by the Zambia Daily Mail saying, “The Government has decided to abolish ZAWA so that it can improve efficiency and reduce corruption in the management of wildlife” (“ZAWA transformed”, 2015). According to newspapers in Zambia, corruption permeates ZAWA. The news website *Zambian Watchdog* exposed a case of corruption, where ZAWA board members and directors were

paying themselves huge sums of “gratitude funds”, while they were unable to pay the community scouts their salaries (“ZAWA Workers go 3 Months Without Salaries”, 2014). Corruption on ground level is also present, as scouts and WPO’s are receiving money from poachers to let them carry out illegal activities. Mr. Ngoma stated that the salaries of Wildlife Police Officers are now increased as he believes this will decrease corruption among WPO’s (“ZAWA Transformed”, 2015). But the situation has still not improved in the spring 2016. The Community Resource Boards have still not received any funds and ZAWA employees in Chilanga reported that the money is used on transformation processes and not going to the ground level.

The formal transformation took place in January 2016, changing the name from ZAWA to National Parks and Wildlife Services (NPWS). However, little has been done since then (own fieldwork). Zambians still refer to ZAWA as the administering unit and the official signs and webpages are still the same. Even though the formal power is transformed back into the government and NPWS is officially the right term to use for the governing institution, this thesis will use ZAWA as the term for the administrative unit for protected areas due to the extension of its use in Zambia.

A current trend in Zambia wildlife protection is the increasing collaboration with Non-Governmental organisations (NGOs) for the management of protected areas. The high number of poaching due to the lack or weak institutional governance in the 1980s and 1990s created the need for partnerships with NGOs (Government of Zambia & UNDP, 2010). There is significant NGO involvement in several NP’s in Zambia today, e.g. Kasanka National Park by Kasanka Trust Limited, Kafue, Frankfurt Zoological society in North Luangwa, and Conservation in Lower Zambezi. The growing cooperative management of NPs and GMAs may be seen as a positive development, as NGOs and ZAWA can share the burden of protected areas management and attract additional financial and technical capacity (Lindsey et al. 2014). However, these partnerships are not always successfully accomplished and several of the international NGOs clearly have a stronger conservation agenda than a local, rural people development agenda.

1.1.4 Conservation strategies in Zambia

Zambia has formally recognized the links between poverty in rural areas and biodiversity losses, thus both international and national actors are striving to resolve

this issue. Poverty and other, often complex circumstances, involving asymmetric power control and use, unresolved and disputed tenure rights, make people use natural resources in ways that are not durable in the long run and this threatens plant habitat and animal species (WWF, 2008). To change this downwards-going spiral, Zambian and international conservationists have realised the need for local people to benefit directly and indirectly in order to obtain sustainable resource use. This should be accomplished by including local people in natural resource governance. The participatory approach contains three important goals; to secure biodiversity, increase the local economy and social values, and improve the relations between “rulers and those ruled”. Devaluation of rights and authority over natural resources, from central to local level governance, are means to achieve these goals (Vedeld, 2002). Various projects and programmes have tried to develop communities’ responsibility for managing and benefiting from the natural resources in Zambia. The result of this effort to include locals gave rise to Community-Based Natural Resource Management (CBNRM) as an approach to natural resource governance (WWF, 2008). This approach seeks to connect conservation of natural resources and local participation, causing tangible benefits for rural development and economic empowerment for the locals (Brandon & Wells, 1992). Community participation forms the core of the CBNRM paradigm, and the purpose is to enable communities to regain control over natural resources and turn local people's attention away from the unsustainable use of wildlife and other natural resources (Oakley, 1991). The approach has been implemented in various forms in different places over the last two decades, but with very varying degrees of success (Vedeld, 2002).

1.1.5 The history of CBNRM in Zambia

The huge international desire for animal conservation in the 1980s was recognized by President Kaunda in Zambia, who also wanted to conserve wildlife, but lacked political support and economic resources. As a result of the international and national motivation for animal conservation, two new conservation programs were created in Zambia; The Administrative Management Design for Game Management Areas (AMADE) and Lungwa Integrated Resource Development Project (LIRDP) (Gibson, 1999).

Due to President Kaunda’s one-party state, conservationists understood the difficulties of running wildlife policy programs in Zambia and they tried to get

Kaunda on their side, without giving him financial power over the resources. To ensure political independence from President Kaunda and other Zambian politicians, the two programs sought funding and support from other countries, such as USA and Norway. Although the two programs are different, they are both funded on the principals from CBNRM, as this was a trending conservation approach in this century (Gibson, 1999).

AMADE and LIRDP were created by different national and international collaborations.

AMADE was created by Zambian National Parks and Wildlife Services (NPWS) officers and supported by United States Agency for International Development (USAID) (Gibson, 1999). They enjoyed substantive political power in Zambia, as they already were an established institution protecting Zambia's wildlife. Unfortunately, the program was not a success. "Their main outcome was increased activities in their department, but no significant conservation improvements" (Gibson, 1999, p. 103). The program did not produce any trustworthy data and they did not manage to distribute ownership of animals to local residents. "They had no evidence of declining poaching and did not manage to establish a self-sustaining wildlife management program" (Gibson, 1999, p. 104). Economic corruption was also a large problem, as huge amounts of money could not be accounted for. Gibson (1999) claims that the AMADE program promoted mismanagement and poor distribution of benefits to individuals.

The LIRDP was initiated by European conservationists and had the support of the Norwegian Agency for International Development (NORAD) and backed by president Kaunda (Gibson, 1999). The support from Kaunda was necessary, as they did not have a legal foundation as AMADE did. Their long-term goal was to achieve legal grounds for LIRDP with independent funds and in this respect they succeeded with in 1991 when the new Wildlife Act was established (Gibson, 1999).

LIRDP was however criticised for having a centralized leadership with Richard Bell and Fidelis Lungu as co-directors. Further they did little to improve LIRDP goals for conservation and for community participation. Most of their efforts were seen as an attempt to gain political power (Gibson, 1999). "One review mission openly doubted that the co-directors used their political resources to enhance their accountability to the local community" (Gibson, 1999:107). The co-directors were also criticised for their attempts to expand LIRDP authority without considering other

governmental and nongovernmental programs working in the same area and this created tension. “Governmental departments and ministries expressed deep resentment towards LIRDPA and their confrontational methods” (Gibson, 1999, p. 108). Thus, LIRDPA were not able to establish stable and efficient institutions for natural resource management in Zambia.

The two programs both had the same goal, to include rural residents in wildlife conservation by providing them benefits from wildlife resources. However, the political institutions in Zambia with a one-party state led to difficulties for the programs and they were not able to implement their programs in a way that would ensure efficient community conservation of natural resources. Even though the programs were both built on the premises for community based natural resource management, they both failed to successfully include the local residents in nature conservation and empower them with authority over natural resource management.

The one-party state governance system in Zambia is not the only reason for the failure of the programs and researchers point out many additional explanations (Gibson, 1999). The approach used by the programs was similar to conventional conservation; increasing protection through hiring more scouts, better equipment and improving their supervision, which is contradictive to the strategy of CBNRM which emphasises less power from above and more power to local residents. However, the power over natural resources remained in the hands of the state, which used scouts to control access to natural resources, and did not give the locals a possibility to influence their decisions regarding revenues and quotas.

The programs also misunderstood local residents rationality and their culture; viewing them as a uniform entity, who all acts for the common good. When they in fact are a complex composition of different individuals with different interests. By miscalculating the rationality among locals, they were not able to provide benefits that prohibited locals from poaching. The benefits produced by revenues from wildlife, such as schools, health clinics and boreholes did not replace the income from illegal hunting or charcoal production, nor did it prevent people from hunting illegally, as the poachers could still enjoy these common goods and continue poaching. Elite capture also became a large problem, as traditional leaders and local authorities tried to manipulate the programs by claiming their authority in the local community and arguing for becoming responsible for distribution of benefits.

An additional explanation for the failure of the programs builds on the desire by wildlife politicians in charge of the programs to gain more control of natural resources. It appears that this is the reason for their cooperation with international donors and domestic politicians and not for the sake of local residents. Thus, they provided locals with benefits that would not empower them, but rather please the donors and retained power over natural resources within the programs. This was done through building schools and clinics in the local community, satisfying the donor's demands for local benefits without giving locals more power. The politicians meant that participatory institutions and individually targeted benefits were too costly and the programs chose to focus on the survival of the program itself.

The two first community-level natural resource management programs in Zambia did not improve conservation of wildlife. Gibson (1999) claims that they rather had a negative effect on conservation and local participation. Excluding locals and distributing collective benefits did not promote conservation. Locals continued illegal hunting as a way of protesting against the conservation structure made by the programs. It turns out that the political institutions running these programs did not have local people's interests at heart. AMADE and LIRDP are seen as the beginning of CBNRM as an approach in Zambia. But as neither of them have successfully managed to improve institutions for natural resource governance, poaching and natural resource degradation is still an issue.

1.1.6 Reviewing CBNRM as an approach

CBNRM projects have been honoured as a solution to protected area conflicts. It assumes that community participation is more effective than centralized control and that sustainable wildlife utilization is more profitable than other alternatives such as farming. CBNRM has been praised as a successful program that finds a reasonable balance between the needs and importance of wildlife and people. However, this is not always the case and the literature recognizes some flaws with this approach; difficulties regarding implementation of CBNRM in complex, little-functioning governance systems with unqualified people responsible for the implementation, which further influence the ability to devaluate real power over natural resources to local communities, causing policy failure and a approach that does not produce results as hoped (Hutton, Adams & Murombedzi, 2005).

This research aims to survey these flaws, so that the program can be improved. Zambia is an appropriate place for this research as the current *Zambian* governance approach to protected areas is not successful. Biodiversity is suffering from both poaching which threatens the viability of numerous larger mammals and communities characterized by high poverty levels that are situated too close to protected areas. While CBNRM is seen as a possible solution, the CBNRM program has not yet been able to deliver what it has promised.

1.2 Statement of problem

The current approach to biodiversity conservation in Zambia is not performing well since biodiversity in protected areas is decreasing and poverty in local communities increasing. Present policies and its present implementers in Zambia are not suited or qualified to include local people and their institutions in comprehensive and participatory governance of protected areas. A better-suited, comprehensive and appropriate policy is needed to enhance the conditions for both biodiversity and local communities.

This research aims to examine how such improvements in CBNRM policy can be made, by investigating stakeholders' attitudes, values and norms as these attributes strongly influence the success or failure of parks regarding biodiversity conservation. The concern is that implementing actors have little knowledge, understanding and respect for local institutions, with their interest, attitudes, values and norms, and that local communities lack knowledge or have negative attitudes to conservation strategies influencing their motivation to participate.

By studying the current conservation situation of protected areas in Zambia, this research clarifies the need for an enhanced approach. To understand how the approach can be improved, the institutions governing the GMAs will be analysed by using Vatn's (2005) framework for analysing resource regimes. Emphasis will be on stakeholders' interest, attitudes, values and norms in relation to local participation of protected areas in Zambia. By using comparative analyse this research will examine possible differences regarding interest, attitudes, values and norms towards the GMA and the policy governing the area between local people and implementing stakeholders. Thus, looking at how these characteristics guide implementing actors in the development of more suitable conservation strategies. This paper argues that with higher levels of understanding between stakeholders involved in conservation, an

improved approach can be developed that both increase biodiversity and decrease poverty in local communities in Zambia.

1.3 Objectives and research questions

This research is guided by three objectives, which all have specific research questions attached. The objectives and research questions are made to assure that the gathered data includes all vital information regarding governance of GMAs in Zambia. The source of information is a combination of secondary data, qualitative data and quantitative data.

1.3.1 The main objective: To investigate the institutional resource regime governing the GMAs, with emphasis on attitudes, values and norms

The objective is based on Vatn (2005) framework on institutional regimes. The aim is to map the current institutional regime governing Namwala GMA in Zambia, to examine the interaction between the physical and social structures of the GMA, with emphasize on the social structures. By analyzing the resource regime governing GMAs, it is possible to see how well the system is performing and where changes need to be made.

The objective seeks to explore in detail how interests, attitudes, values and norms influence the degree of success of the implementation process of the wildlife policy based on CBNRM. The examination is done both among implementing stakeholders such as park management and GMA staff and among local people living in the GMA. This way it is possible to analyze the perceptions of the two different groups towards the wildlife policy, the park and each other.

An emphasis is put on participation as a key requirement for the success of CBNRM. It thereby seeks to understand how different stakeholders view and treat each other and how this influences implementation of CBNRM. Lastly, the research will examine key issues in the resource regime.

The following research questions will be addressed:

- What are the attributes of the natural resources in the protected area?
- Who are the key stakeholders in the GMA, what kind of formal rules do they follow and how do they view these formal rules?

- What kind of informal rules and norms exist in the community regarding governance of the protected area and do management and staff consider the informal institutions?
- What are the values, norms and attitudes of local people and implementing actors towards the protected area?
- How has the history of policy approaches towards protected areas affected attitudes, values and norms among local people in Zambia?
- Are there differences in interest, attitudes, values and norms among the key stakeholders towards the protected area?
- How do the key stakeholders interact?
- How do implementing actors view local communities and do they consider their unique social institutions when implementing conservation policies?
- How do the local communities view the implementing actors?
- What are the key challenges facing the GMA?

1.4 Method and field study

This field study is carried out in Namwala GMA, outside Kafue National Park in Zambia. The data was collected over a period of two and a half months. The research includes both stakeholders who are implementing the wildlife policy and local communities who are living in the GMA. Both qualitative and quantitative methods are used to gather comprehensive information of the regime governing protected areas in Zambia.

1.5 Justification of thesis

Hopefully, this research will be useful for Zambian stakeholders involved in wildlife conservation and for local people living in GMAs whose life depend on these vulnerable natural resources. The study is also relevant for conservationists and natural resource managers all over the world, who are trying to improve the governance system of protected areas. Hopefully, the results can be used to improve the implementation and result of CBNRM as an approach, making it easier to succeed in the future.

1.6 The outline of the thesis

Chapter 1 introduces the theme of this research and provides background information from the situation in Zambia and the history of conservation approaches. This chapter also presents the problem statement, the specific objectives and research questions that were used to analyze the resource regime governing protected areas in Zambia and the attitudes, values and norms different stakeholders hold to the park, the wildlife policy and each other. Chapter 2 describes the theoretical framework used to develop the research questions and to analyze the data. Chapter 3 describes the method on which this research is build, which highly influence the outcome. This chapter discusses limitations and challenges during fieldwork. Chapter 4 presents description of the specific study area. Chapter 5 presents the research results and discuss important findings together with the theoretical framework. Chapter 6 presents the conclusion with summarizing findings and recommendations.

2 CHAPTER: 2 LITERATURE AND THEORETICAL BACKGROUND

This chapter explains the historical background for the thesis and the theory that is used to develop the objectives and to analyze the results in the discussion.

The theoretical background for this study is rooted in institutional theory on community participation. Institutional concepts and theory is used to understand the complexity of how CBNRM can be improved. The common strategy is to use economic rationality to explain community participation. This research, however, challenges that thought and argue that the situation is far more complex and that issues must be viewed in perspectives other than only economical thinking. By looking at relationships between stakeholders and viewing them as institutions, it is possible to understand their attitudes, values and norms and thus why they think and act in certain ways. This will further explain how they relate to the GMA, wildlife policies and how local people and park management relate to each other. Hopefully, this understanding can help to address missing gaps regarding CBNRM implementation and thereby improve its effectiveness.

First, the history of field is presented to explain how approaches to conservation of protected areas have changed through time.

2.1 History of field

In order to understand current attitudes, values and norms of Zambian stakeholders towards protected areas they must be viewed in light of historical approaches towards conservation.

2.1.1 *Policy approaches to protected areas and conservation*

It is important to view conservation policy strategies in a historical and social context as policy and power use influence local communities present attitudes, values and norms. A historical perspective can offer explanations as to why local communities may have negative attitudes, values and norms towards wildlife conservation. One underlying reason for these negative attitudes is derived from the centralization of wildlife conservation and resource management (Mbaiwa, 2007). The centralization included establishment of protected areas and the eviction and deprivation of accessibility for people living in these areas. Local communities lost their land and the central government dispossessed them of guardianship for natural resources. Losing access to land and natural resources on which they used to sustain their livelihood, led to strong negative attitudes towards wildlife conservation. In addition, wildlife preying on livestock and damaging crop are major sources to land-use conflicts, leading to further negative attitudes. Government compensation is not seen as sufficient as it is either small or coming late (Mbaiwa, 2007).

2.1.2 *The Fortress Approach*

The dominating policy measure in the 20th century to establish protected areas is referred to as “Fortress Conservation Approach”, separating local people from their land to protect wildlife and endangered species from consumptive and non-consumptive use (Hutton, Adams & Murombedzi, 2005). The model is influenced by the American idea of national parks as pristine or wilderness areas and the British notion of intensively managed nature reserves (Hutton, Adams & Murombedzi, 2005). “Fine and fence” was used as a policy style to deny local people access to the protected areas, which used to be their land. Traditional use like grazing, wood collecting and acquisition of wild meat were strictly prohibited for local people (Vedeld, 2002). The main goal was to conserve biodiversity and the approach was highly appreciated by ecologists and ecocentric enthusiasts. However, the strict and undemocratic approach caused large wildlife-human conflicts.

Local people saw it as unfair that their traditional rights were taken from them. Being deprived of their resources, they engaged in poaching on vulnerable species to secure their livelihood. The conflict expanded as the protected areas and population increased, causing less land for more people (Vedeld, 2002). The conflict created international attention and advocacy groups recognized the unfair treatment of local people.

The fortress approach caused a “loss for all” situation, local people were deprived of land and resources, and poaching led to biodiversity remaining threatened. This created external pressures, which led to changes in policies.

2.1.3 The aspiration for participatory approaches

In the 1990s, a new approach that emphasises participation of local people in governance of national parks came to challenge the Fortress Approach and the need to exclude people from protected areas. The new community conservation approach came in different forms; community-based conservation, community wildlife management, collaborative or co-management, community-based natural resource management and development programs (Barrow and Murphree, 2001 cited in Vedeld, 2002), and from different people with different intentions (Vedeld, 2002).

Many argue that reasons for the new approach stem from recognizing of the negative impacts on local people and the human cost of depriving their land. However, according to Hutton, Adams, Murombedzi (2005), the real reason for the changing policy is not human cost, but rather the concern from conservationist who began to realize that the fortress approach would be difficult to uphold in countries who were establishing democracies. Additionally, protected areas in biodiversity-rich developing countries were managed ineffectively and thus gave little protection of biodiversity.

2.1.4 The participatory community approach

The participatory community approach gained attention in the international arena and key actors chose to promote it. The World Congress on National Parks and Protected Areas set the “community approach” on the agenda in 1982 and again in 1992. Man and the Biosphere had it as a key element in the concept of biosphere reserves in 1970 and it was recognized by WWF’s Wildlife and Human needs program in 1985 and in the surplus of “people and park” projects developed in the late

1980s (Hutton, Adams, Murombedzi, 2005). These projects were trying to link development and conservation, which is the essence in community-based natural resource management.

The community approach stresses how morally wrong it is for local people to be excluded from their land and the hostility this can cause. The recognition of the approach is based on four reasons according to Hutton, Adams, Murombedzi (2005). Firstly, attention to sustainable development rather than conservation were appreciated in the international community. Secondly, it suited well the idealist and romantic idea of “community” as actors for positive social change, instead of the state. Thirdly, the approach correlated with the “bottom-up” development approach in the 1970s emphasizing decentralized and participatory planning. Fourthly, it fitted well in the neoclassical economic approach where market transactions were posed as alternatives to state operations. Economic incentives in the market were seen as the best way to achieve public policy goals. Communities should become micro-entrepreneurs, using natural resources as a means to achieve sustainable livelihood and conservation. “Wildlife should pay its way” by providing tourism, trophy-hunting, medicines, meat or other products (Vedeld, 2002). These four reasons supporting community approach were to be accomplished through “devaluation of authority, resources, rights and duties from central to local level governance” (Vedeld, 2002, p.3). It implied a shift in governance style from public to civil society and also increasing private actors and market integration.

The participating community approach has been applied in various forms in different areas, but with varying outcomes. Success stories do exist, but in many cases, the goal of improving biodiversity governance while increasing living conditions for local people were not obtained. The benefits transferred to local people, do not equal the cost of having conservation areas and wildlife close to their houses. The romantic view of communities as homogenous, equal and unified groups is also seen as a misinterpretation. Local communities, like other social groups, are complex and heterogenic with different attitudes, values and norms. Power relations within these communities affect the distribution of costs and benefits and in some cases contribute to making the differences within a community even larger. In other words, the creation of formal institutions does not capture the complexities of the informal institutions (Vedeld, 2002).

By the end of the century, the strong optimism regarding the participatory approach was diminishing due to its variable outcomes in African countries (Murphree, 2009 in Chidakel, 2011). The bottom-up approach had only partially improved conditions for locals. Too little revenues were distributed to locals compared to the costs, and the relationship between locals and authorities did not improve. Thus, the approach seemed not to deliver what it had promised and improvements were necessary. It became clear that an effective implementation of community approaches to conservation required overcoming governmental authorities resistance to devolution of power. Capacity and accountability within communities needed strengthening and adequate revenue potential for locals should be realized and not only be a promise (Wainwright & Wehrmeyer, 1998 in Chidakel, 2011). Even though community based approaches to conservation failed to deliver fully on its promise, it is seen as the only viable alternative to the “fortress conservation” model (Murphree, 2009 in Chidakel, 2011). However, it needs to be improved.

2.2 Theoretical approaches to community participation

This section starts by describing Ostrom (1990) principles for successful community governance of natural resources, as these principles are included in the original theory behind CBNRM and the validity of these principles will therefore be studied in this research to determine if they are still applicable. Then, a critical view of these initial thoughts is presented by using Cleaver’s (1999) theory on participation. Cleaver discusses how improvements of the participatory-community approach towards conservation can be made. Cleaver starts by explaining how local communities are misunderstood in the original participatory approach; local communities are not simple and uniform; they are complex, changeable and varying. Understanding the communities’ complexities is critical for developing new and better-suited policies and conservation strategies. The connection between participation and attitudes, values and norms explains how these attributes are important for successful implementation of CBNRM. Social constructivism is used to better understand attitudes, values and norms; how these characteristics are formed and how they vary between different stakeholders. At the end, the theoretical framework for analysis will be presented. Vatn’s (2005) theory is used to guide the analysis of the governance structure in Namwala GMA as an institutional regime and thereby explore at the relationships between different stakeholders, the policy and the

resource itself. In order to better understand the importance of values, attitudes and norms in natural resource governance, this research uses Worboys *et al.*, (2005) theoretical framework based on Harmon and Putney (2003).

2.2.1 Ostrom's 8 principles for managing common pool resources

Elinor Ostrom's work is based on how communities succeed or fail at managing common pool resources such as grazing land and forests. Ostrom's achievement provides alternative answers to "Tragedy of the commons", rejecting the belief that private property is the only way of protecting resources from depletion and proving all over the world that a vast number of communities govern common areas sustainably to assure the survival of the resources for future generations (Walljasper, 2011). Through her work she identified a net of criteria for long enduring common-pool resources institutions and as a result she propose 8 design principles that will assure strong local institutions capable of managing common-pool resources on their own (Cox, Arnold, & Tomás, 2010).

Principles 1: presence of well-defined boundaries around a community of users and boundaries around the resource system this community is using (Cox et al., 2010, p.6). "Individuals or households who have rights to withdraw resource units from the CPR must be clearly defined, as must the boundaries of the CPR itself" (Ostrom, 1999, p.1). Thus, this research will investigate if there are clear boundaries for natural resources in Namwala and whether these boundaries are known to local communities and park staff. It will also investigate who the rightful users are and how membership is distinguished.

Principle 2: "congruence between appropriation and provision rules and local conditions" (Cox et al., 2010, p.6). "Appropriation rules restricting time, place, technology, and/or quantity of resource units are related to local conditions and to provision rules requiring labor, materials, and/or money" (Ostrom, 1999, p.2). This principle highlights the negative consequences that occur when externally imposed rules do not match local customs and livelihood strategies. There should be harmony between the resource environment and its governance structure. It also emphasises the importance of compatibility between users costs and the benefit they receive via participating in collective action (Cox et al., 2010). Therefore, this research seeks to

examine whether the formal rules match the local institutions in Namwala and if what users gain through by participating in collective protecting of natural resources is compatible to their effort in doing so.

Principle 3: "most individuals affected by the operational rules can participate in modifying the operational rules" (Cox et al., 2010, p.9). This means that decisions should be made through democratic arrangements that allow most resource users to participate. This principle also bases itself on recognition and importance of local knowledge in natural resource management. Local users have experiential and historical knowledge about their own resources and thus possess comprehensive knowledge to develop effective rules for resource management in their local environment, particularly when local conditions change. This principle will be used to see if the local residents are included in the decision-making process over natural resources in their area and if they truly have the ability to influence rules that are made.

Principle 4: "presence of local monitors to uphold rules" (Cox et al., 2010, p.9). "Monitors, who actively audit CPR conditions and appropriator behavior, are accountable to the appropriators or are the appropriators" (Ostrom, 1999, p.3). Rules should be upheld through effective monitoring by monitors who are members of the community. Monitoring makes those who do not comply with rules visible to the community, which facilitates the effectiveness of rule enforcement mechanisms and informs strategic and contingent behavior of those who do comply with rules. Thus, this research will examine if there are mechanisms in place for monitoring in Namwala, who the participating monitors are and if the monitoring is effective.

Principle 5: "stipulates the efficacy of graduated sanctioning systems" (Cox et al., 2010, p.10). "Appropriators who violate operational rules are likely to be assessed according to graduated sanctions (depending on the seriousness and context of the offense) by other appropriators, by officials accountable to these appropriators, or by both." (Ostrom, 1999, p.3). Violations should be punished with graduated sanctions, as this is the most effective. Sanctions should either be based on the severity or on the repetition of violations. It prevents people from carrying out excessive violations, as the punishment then would be very high. It will also appear

fair to participants as the sanctions resembles the severity of violations, this way it is possible to maintain community cohesion while still punishing severe cases. Both local residents and governing actors will be asked if a system for graduated sanctions is in place in Namwala and if it is effective and legitimate.

Principle 6: “systems with low-cost conflict resolution mechanisms are more likely to survive” (Cox et al., 2010, p.11). “Appropriators and their officials have rapid access to low-cost local arenas to resolve conflicts among appropriators or between appropriators and officials” (Ostrom, 1999, p.5). This principle states that systems with low-cost conflict resolution mechanisms are more likely to survive. Conflicts over resources are impossible to avoid, therefore it is important to have an established system for conflict resolution to maintain collective action. Ostrom (1999) argues that solving issues at local level is supposedly more efficient and effective. If there is a system for local level conflict-solving in Namwala will be investigated and if not, if stakeholder think a system like this would be effective.

Principle 7: “external governance agencies shall not challenge the rights of local users to self-organize and create their own institutions” (Cox et al., 2010, p.11). “The rights of appropriators to devise their own institutions are not challenged by external governmental authorities” (Ostrom, 1999, p.6). This principle emphasizes the importance of governmental agencies not to challenge the rights of local users to develop their own governing institutions. If the government imposes their own rules, which do not match with the local conditions, the governmental governance may fail. This is a central issue of this research and this study will examine how people in the local communities feel about the formal rules and how these rules have affected them.

Principle 8: “in successful systems, governance activities are organized in multiple layers of nested enterprises” (Cox, et al., 2010, p.11). “Appropriation, provision, monitoring, enforcement, conflict resolution, and governance activities are organized in multiple layers of nested enterprises”, by this, Ostrom (1990) argues that for a governance system to be successful it must have several management levels, from local to national. The only way to succeed is if all stakeholders, at all levels are actively involved. How this strategy is implemented in governance of Namwala will be closely investigated, as this a cornerstone in CBNRM.

Ostrom's contribution to governance of common pool resources provides a good platform for CBNRM. However some of her principles are not as straightforward as they may seem at first sight and many scientists believe that the principles ought to be problematized to accomplish a better approach to resource management (Cleaver 2012, Vedeld 2002 & Hutten, Adams, Murombedzi 2005). The utility of Ostroms principles will be tested in this research through interviews and a questionnaire.

2.2.2 *A revised participatory community approach*

The many projects implemented within the community participation approach have produced a large number of lessons to learn from. Cleaver (1999) sums up some of these lessons well in a constructive critique of the participation approach. Cleaver focus on informal institutions and questions the concept of "community" as a desirable social entity with preferable values. Cleaver also identified four myths about the "community", which is important to uncover in order to make the participatory approach more successful. These lessons, functions as a base for the research questions in this thesis and are tested in the field through the questionnaire.

The unitary community refers to the impressions of communities as easily identified and distinguished with clear rules regarding who are included and excluded from the society and thus, the natural resource. However, this is often not applicable. "Communities are overlapping, permeable, shifting and subjective in both space and time" (Vedeld, 2015, p.31). Communities are complex and boundaries of inclusion and exclusion are continuously shifting. It is therefore difficult to distinguish who the "local people" are and thus, who have rights and access to the natural resources.

Power and process seems to be overly simplified by project approaches. They see communities as models of solidarity. However, community includes both solidarity and conflict, shifting alliances, power and social structures. When local community projects give benefits to local communities, they often overlook the uneven power structures in the community and the benefits tend to go to the already privileged people and the poor are left poor.

The resourceful community, who are capable of anything, lies as an assumption in a "romantic" idea about the community. However, there is little

evidence to support this claim. Research rather shows that communities are constrained by lack of resources and insufficient social and physical structures.

Culture and foundationalism are seen in two different ways; as a resource in the way it binds the community together and holds significant knowledge, attitudes and practices, and in addition creating common values and norms. However, it is also seen as a constraint for development, in the way it for example limits participation of women. The task for development projects is to make traditional communities able to release their knowledge and competence. The difficulty is when tradition and culture in a community stands for the opposite of development, which makes building institutions problematic.

These four assumptions about the community will be tested in the local communities in Namwala GMA and among the governing actors, to examine if the communities are in fact misinterpreted.

2.2.2.1 *Formal v. informal institutions*

Cleaver's (1999) recognition of informal institutions and social capital reflects a general tendency in development literature, however development projects usually focus on building formal institutions as it is seen as the most productive way to establish change according to Ostrom (1990). Formal institutions include clear rules regarding membership, boundaries, formal systems for monitoring and sanctions. Therefor will "crafting" of such standardized, formalized institutions be more robust and longer lasting, than traditional institutions which are regarded as weak, argues Ostrom (1990). By contrast, Cleaver's (1999) emphasizes the importance of recognizing and building informal institutions and stresses the fact that people are more influenced by social institutions with social values, norms, social networks, practice, which goes deeper than formal frameworks. Changing this will thus imply a more comprehensive way of changing institutions.

Formal institutions can neither explain all aspects of institutions nor solve all problematic social relations. They do not necessarily overcome exclusion or inequity, since this is often rooted in informal conditions and relations, which are not included. Besides, these formal institutions overlooked the existing institutions with established power relations. It is not given that local leaders and authorities always are capable to understand and handle participation in proper ways. Cleaver (2012) concludes that the

notation that formal institutions yield participation is in fact naïve. It is therefore important to explore if this is true for the local communities in this research as well.

2.2.2.2 Individuals and motivation

Implementing actors' assumptions about rationality of actors in the local community, will highly affect the outcome of a project (Cleaver, 1999). However, limited effort is paid to individuals and their individual motivation to participate. Implementing actors fail to consider personal differences, as they only differentiate between social or occupational categories such as; "women", "farmers", "poor", "leaders" (Cleaver, 1999). Individual motivation is either seen as the "economic man" maximizing own utility or as a "social being" acting for the common good. Either way, the complexities of individuals are overly simplified (Cleaver, 1999).

Most participation literature is based on functionalism and economic thinking and thus explains motivation with economical rationality, assuming that people will participate to assure individual benefits. However, to a lesser extent it is also argued that motivation can be based on social responsibility and interest of the community. Social norms are often regarded with less importance than economic rationality. Norms such as responsibility and community service is seen as means to achieve economic development. Independent variations such as psychological motivation, need for recognition, respect and purpose, is given little attention (Cleaver, 1999, p.606).

Anticipated behaviour in response to participation incentives is often not clarified in development projects, which is a problem, as the instruments used do not necessarily correlate with the response. Instruments should always be applied according to the anticipated motivation; assuming social or individual motivation among local actors. For example if economic rationality is assumed, then incentives that produce gains for the individual should be used. However, if social rationality is assumed incentives that benefits the community or social groups should be used. How people think and are motivated concerning "I or we" type rationality is an important distinction that should be considered when designing a project or a policy (Vedeld, 2015).

2.2.2.3 *Located identities and individuals choice*

Located identities are used by Cleaver (2012) to explain the multiple and changing identities of individuals. Age, gender, class and individual agency shape people's wish to participate. Some find it easier not to participate. This choice can be seen as rational or as unconscious and based on norms and conventions. People choosing not to participate are often little explored. Participation is thought of as a good thing that benefits the people who participate. However, this is not always the case and some may not even be capable of participating. Women for example is a very vulnerable group and does not necessary have the ability to participate due to other obligations or social allowance based on social rules and conduct. Norgrove and Hulme (2006) explain that local people may perceive external participation interventions as unwanted interferences from above. It is important not to expect people to participate. Reasons for not participating can be material, but it can also be strategic or norm-based. People may not want to become dependent on a project or the state, but rather choose security and independence (Vedeld, 2015, p.33).

Cleavers critical approach offers many advices on how the communitarian participating approach can be improved. And even though the communitarian participating approach has not lived up to its expectations, it has the potential for promoting wildlife conservation and improves livelihoods if improvements are made. A core issue is lack of understanding. To address this issue, this research will look at how knowledge of attitudes, values and norms can increase understanding between relevant stakeholders.

2.3 Institutions and social constructivism

This section applies a social constructive perspective on institutions and on the individual to understand how attitudes, values and norms are formed, why they vary and how these characteristics are related to resource governance.

2.3.1 *Connecting participation with attitudes, values and norms*

Understanding stakeholder's attitudes, values and norms towards resource use, conservation and existing policies has become critical for developing new and better-suited policies and conservation strategies. As a result, many development programs depending on the understanding of the relationship between protected areas and

various stakeholders have emerged. These programs have led to policies trying to include community in planning, decision-making and management of protected areas. Some scientists have observed that whether the policies are successful or not depends on stakeholders perception of conservation as affecting them positively or negatively (Weladji, Moe & Vedeld, 2003). Thus, stakeholders' attitudes, values and norms towards conservation areas and the relevant policies are important for conservation management.

This paper uses institutional theory to define *values*, *attitudes* and *norms*. Values are something that have intrinsically value or are desirable for a person or a group and they form the basis of peoples' norms and attitudes. In this study, values can mean either the "monetary worth of something, the desirability or utility of a thing or as an idea or feeling" (Lockwood, 2005, p.101). According to institutional theory "norms govern behavior where specific values are accentuated or protected" (Vatn, 2005, p.7). This means that norms guide what is considered right or wrong behavior. Norms are formed on certain *values* and when norms are followed, these values are supported. In general, norms concern how we treat each other based on our values (Vatn, 2005). The concept of *attitudes* has been defined in many ways. Common to most is that an attitude is a tendency to behave in a particular way to a certain phenomenon, depending on which values a person holds and it is long assumed that there is strong relationship between attitudes and behavior (Proctor, 2001 in Browne-Nuñez, & Jonker, 2008). Thus, both norms and attitudes emanate from peoples values.

Attitudes, values and norms play an important role in acceptance of environmental policies and management actions by the public, especially conservationists (Winter et al., 2005 in Karanth et. al., 2008, p.2358). To understand why people make decisions and behave in certain ways, attitude and opinion surveys are commonly used. Examining people's attitudes is important for formulating policies and management actions, and generating public awareness (Gillingham and Lee, 1999; Kaltenborn et al., 2006; Soto et al., 2001 in Karanth et. al. 2008, p.2358).

There are a number of factors that influence attitudes, values and norms; individuals' worldview, understanding and knowledge of issues, and socio-economic characteristics. Factors such as age, gender, education, and income level often influence people's support for particular issues (Kaczensky et al., 2004; Kleiven et al., 2004; Pratt et al., 2004; McFarlane et al., 2006 in Karanth et. al. 2008, p.2358). Other

factors found to influence conservation attitudes include personal environment, value of open spaces, and experiences (Kellert, 1991 in Karanth et. al. 2008, p.2358).

By understanding and identifying factors that influence attitudes towards protected areas, it can contribute to the wider discourse on the function, effectiveness and legitimacy of state-led community outreach programs. Studies of this nature are valuable for a number of reasons; they can disclose whether strong attitudes exist towards conservation and/or protected areas, which in some cases may explain behaviour (Lepp & Holland, 2006), they can also inform protected areas managers and policy makers which factors influence attitudes and thereby assisting in prioritizing ways for action.

To gain a better understanding of attitudes, values and norms, the section below will look at how human behaviour is formed, by using theory from social constructivism.

2.3.2 *Social construction*

Social construction is based on the assumption that attitudes, values and norms are the foundation for human behaviour. According to social constructivism the social individual is constituted through primary and secondary socialization processes (Berger and Luckman, 1967). Through family and close surroundings the primary social construction develops. Children learn the basic rules in their close surroundings including reward and punishment mechanisms. Gradually the child will learn about the social values and practices and the worldview in the community where they grow up. Views, values and practices are internalized and taken for given (Vedeld, Moulton & Krogh, 1997).

Influence from the external world composes the secondary socialization process. Through increased exposure to the outside world, the individual will be able to embrace new, external ideas, values, norms and courses of action. As the social individual develops, so will the consciousness. New knowledge and opinions will be consciously evaluated. Values and norms will be rejected or internalized, depending on the existing sanctions in the society. The socialization process goes two ways, “the social individual influence other people and the individual is influenced by the social surroundings” (Vedeld, Moulton & Krogh, 1997, p.16).

People are also influenced by where and how they grow up. Sometimes part of the socialization process is included in the families’ work and duties. For example, in

a local community, values and knowledge are linked to a family capacity or competence and expressed through their practical tasks. This understanding of “the way of life” through practical participation at home equals the “self-employed life mode”. Life-mode is thus a concept used to cover both the physical and mental dimension of adaptation and the understanding of it. “The concept of life mode links competence, worldview and social values and norms in an analytical framework that is relevant for the conservation management” (Vedeld, Moulton & Krogh, 1997, p.17). Growing up, children are influenced by their parent’s life-modes. The social arena where the child is raised constitutes social conditions and ideological beliefs that influence the individual (Vedeld, Moulton & Krogh, 1997). By understanding different stakeholders life-modes, it is possible to understand different stakeholders behaviour and rationality. Local residents in the GMA who are raised to be fishermen will have a totally different life-mode than educated people raised in the city and educated to become politicians. It is important to be aware of these differences so emphasis can be put on the understanding between different stakeholders. Politicians cannot assume that local residents think in the same way as they do and they need to learn about local people’s self-employed life-mode, to understand what kind of incentives that may influence local residents behaviour.

2.3.2.1 *The producer environment*

The producer environment consists of social networks with social interaction, processes and a social structure (Vedeld, Moulton & Krogh, 1997). It is developed as a definition of the agricultural community in Norway, but the term can also be utilized to describe local institutions in Zambia.

Through interaction in different social contexts and networks, people in a local community establish social values and knowledge, which is passed on, recreated and changed. The social network in the producer environment consists of both formal and informal social relationships and interaction takes place in a number of different arenas. Through time, the community establish common norms, stable roles and behavioural patterns for good conservation strategies, creation of status and roles constituted by local chiefs, followers and outcasts or dissidents (Vedeld, Moulton & Krogh, 1997, p.18). In this way, the producer environment constitutes and form social institutions.

When those who are being governed and those who govern are part of the same producer environment, raised in the same local environment, this makes them competent to collaborate successfully. Advisors or governing actors upbringing in the local community gives them unconscious or implicit knowledge about the social institutions. This type of tacit knowledge gives the public officer's unique expertise that facilitates understanding and interaction with those they govern.

In Zambia the situation is currently different, as governing actors often are outsiders, knowing little about local social institutions and their way of life. The governing actors usually are from different and more urban places than the protected area they govern, and they do not have the same social values and norms as the local residents. Lacking knowledge from within, it is difficult for governing actors to understand how the community functions. It is also challenging for local people to trust governing actors as they view them as outsiders and associate them as authoritarian leaders using a top-down approach to get their will, while the community are offered little opportunity to influence governance of own resources. The trust issue goes both ways; governing actors also have to learn to trust communities and their knowledge and trust them with different tasks. These examples demonstrate that it is important for governing actors to have comprehensive knowledge about the relevant community and to have trust within these communities.

However, cooperation varies between different communities, as no places are identical. Adaptation of new conservation approaches may be more appreciated and easier to establish in some communities than others. Certain communities may be more open for change than others and this will affect how well a new policy is accepted and thus the success of its outcome (Vedeld, Moulton & Krogh, 1997). Historical and regional features are developed through time and are important as it gives a macro-orientation and also a nuanced and local expression (Røling, 1994 sited in Fresco, et al., 1994). Furthermore, knowledge, norms and values may be institutionalized in these communities and thereby behaviour and perceptions vary between communities. In Zambia, organization culture, religious beliefs and rules for traditional use vary. Some communities have rules for who are allowed to use a resource thereby resulting in discrimination of for example women, who in some societies have reduced access to resources such as wildlife. When implementing a participation program, it is difficult to overcome such strong social rules. However, it

is obvious that knowledge and familiarity about the community and its attitudes, values and norms is an advantage for public servants implementing policies.

2.4 The theoretical framework for analysis of governance

This framework is used to examine the institutions governing the GMAs as a resource regime; the local institution, the institution of governing actors, the policies, the resource itself with its attributes, the historical perspective and the interest, attitudes, values and norms among relevant stakeholders. The theoretical framework is based on institutional theory and provides a structure for analysing the results. This way, it is possible to analyze how implementation of CBNRM as a resource governance model, with emphasis on participation, can be improved.

2.4.1 Institutional analysis

Institutional theory attempts to provide greater understanding of how people and society interact within a network of institutions. The concept of institutions are defined by many scientists and no common definition is accepted in social theory as different theories understand behavior in different ways and thus also interpret and understand institutions differently. This research operates with social constructivism's view on institutions and will thereby focus on Berger and Luckman's (1967) perspectives. They argue that the institutional context defines what is rational for people or what is reasonable to do, and thereby guide our behavior. This perspective recognize the importance of people's values, norms and attitudes and formulates an understanding of how these factors affect behavior, which is important in understanding governance issues.

Social constructivism emphasizes the role of society in creation of people's values, attitudes and norms. Referring to this perspective people are formed by the institutions in the society where they are raised and it is through such institutions that understanding of the physical world and peoples social skills are developed. Social capacities and perceptions of the world are thus socially constructed (Vatn 2005, p.11).

Within the same perspective we also find Scott (1995), whose focus, however, is more on the various forms institutions might take. He argues, "*Institutions consists of cognitive, normative and regulative structures and activities that provide stability and meaning to social behavior. Institutions are transported by various carriers –*

cultures, structures and routines – and they operate at multiple levels” (Scott, 1995a, p.33). The importance of Scott’s definitions for this research includes his emphasis on the cognitive and normative aspects of institutions in addition to the regulative. The cognitive aspect concerns our mental structures, how people classify objects and give them meaning and thereby act after those definitions. The normative element is needed as it includes implicit and explicit values involved in the cognitive picture of what the definitions means, thereby choosing which values should be supported and not. For example in the cognitive aspect of being a biologist, lies the value of biological diversity and thus will natural values be the most important to support and protect in governance of a protected areas. The cognitive and normative aspects are important for this study as it includes the attitudes, norms and values people hold. However, Scott emphasis that sometimes the normative system is not enough to make people behave in appropriate ways and this is why it is important to have an external punishment and reward system to obtain desired behavioral outcomes. This is the main point in what Scott characterize as the regulative element. The regulative element includes the ability of an institution reward structures to influence individual peoples logic and rationality, possibly changing what people perceive as a normative “we” issue into a “I” issue, destroying normative, self-regulating structures (Vatn, 2005). Therefor it is necessary to include the regulative system, when analyzing the institutional regime governing natural resources in Zambian GMAs.

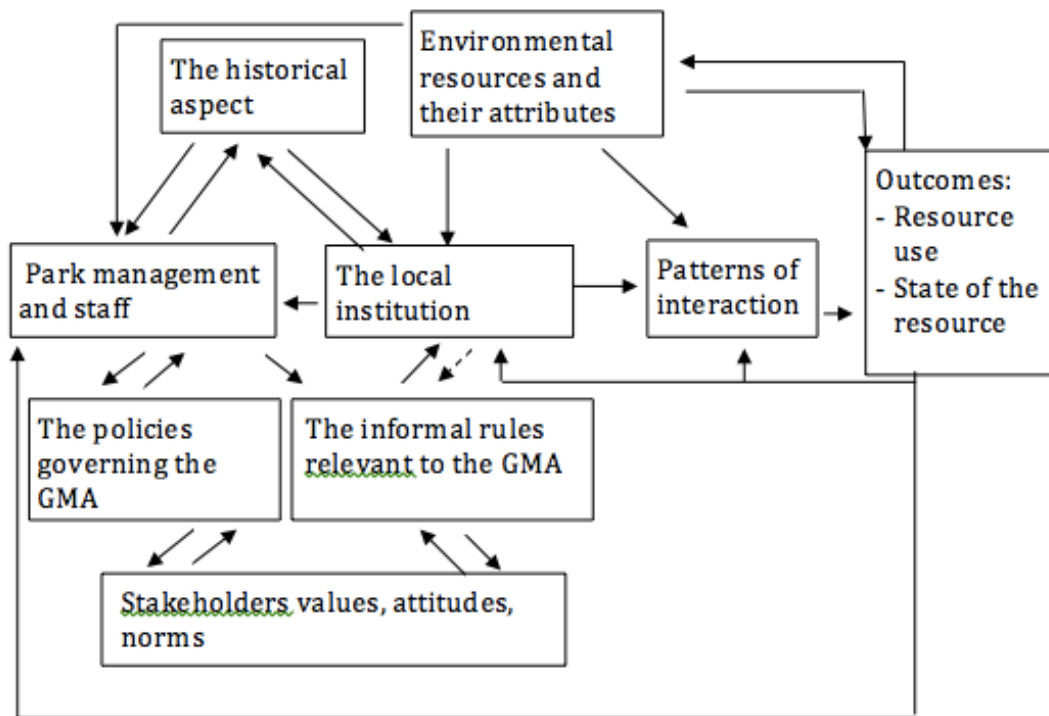
Vatn (2005) builds his institutional definition on Scott (1995) and claims that institutions are often so natural or fundamental to us that we do not know they exist. Institutions influence all aspects and levels of society. It consists of conventions, norms and externally sanctioned rules.

GMAs consist of many institutions that guide behavior of local people and implementing actors, and these institutions are manifested in a governance structure. Governance refers to policymaking and institutions that are set up to guide behavior and interaction in the GMAs. Institutional arrangements established to govern GMAs can be conceptualized as resource regimes (Vatn, 2005). Vatn (2005) provides a good framework for how it is possible to analyze an institutional resource regime governing natural resources to address resource management issues.

The model is inspired by Ostrom (1990), Oakersson (1992) and Ostrom et al. (1994) and it is a suitable framework for studying the institutional structures of the governance model in Zambia under which choices are made (Vatn, 2005, p.283). If

resources are depleted, the most important problem is that the regime does not fit well to the characteristics of the resources involved and/or the values of the societies involved.

Figure 1: Framework for analyzing resource-use problems based on Vatn (2005)



Source: Vatn (2005, p.283)

This framework makes it possible to address the institutional issues regarding natural resources governance; who has access to the resource, how/who is setting up and running the institution, how problems are perceived, which interests are protected and which values it fosters (Vatn, 2005, p.252). Thus, this framework will help to identify stakeholder's possible differences regarding interests, attitudes, values and norms towards the GMA and how this may influence the current state of the resource. Social constructivists emphasize that institutions influence the perspective and interest of individuals, their possibilities to communicate and willingness to cooperate. This perspective acknowledges that the regime influences the understanding of problems involved and what kind of norms, values and routines are applied and not only the formal rules. This framework will help us analyze the resource regime governing the GMA

and thus see if it do not fit well to the characteristics of the resources involved and/or the values of the societies involved.

2.4.1.1 *Environmental policy*

In the context of environmental policy it is important to understand what motivates choices and what are reasonable policies according to Vatn (2005, p.13). He argues that policies must be different in cases where choices are determined by conventions and norms as opposed to situations where choices are purely influenced by the external reward and punishment system (formal rules). Incentives influence the logic or rationality people assign to certain situations. Using incentives directed to individuals might change a common problem into an individual one. What was perceived as a normative, common problem becomes an “I” issue and the normative self-regulating structures may vanish. This is a core issue as this study acknowledges the relationship between individual motives, the institutional context and the relevant policy. Possible policy recommendations must therefore be based on a model that recognizes this interrelated relationship. Thus, studying the institutional structures the local community hold and the institutions governing the protected area are important to identify the right incentives for implementation of CBNRM.

2.4.1.2 *Power and instruments*

Given good knowledge and familiarity about a community, it becomes important to choose the appropriate type of power and instruments that fits the characteristics of the community. The concept of good governance gives an introduction to power, how to use it and how power is mediated through different kinds of instruments.

Governance is a central term within management of natural resources and it is necessary to understand the meaning of it. It encompasses more than just government; it includes actors, their decisions, conflicts, conflict resolution and coordination on all levels. Vedeld, Krogh & Vatn, (2003, p.21) defines it accordingly; “Governance concerns both formulating policy goals and instruments in society and the implied use of power to reach goals”. Power is used to distribute resources, authority, rights and duties. In theory, the state has authority to exercise power as it may wish, however good governance emphasizes that power must be used with consideration of different actors interests (Vedeld, Krogh & Vatn, 2003).

Different types of power are used to make actors comply with policies. *Coercive power* is when people comply because they fear the consequences of force or the threat to use physical power. This type of power is used in the “fortress approach” to conservation, where people are banned from using their land through a “fine and fence” strategy. *Remunerative power* is when people accept power because it pays off. Salaries or subsidies make it worth to obey. This type of power can be used if implementing actors view humans according to an economical rational model. Which is the case in many programs focusing on participation, assuming that people will participate because it pays off. *Normative power* is when one accepts power use because they agree on the values and norms that lies as a base for the power use. Or when people accept rules through negotiation of agreements. According to social constructivist, normative power will be the ideal type of power in regards to a participating governance approach (Vedeld, Krogh & Vatn, 2003).

As a response to power, the affected part will respond through cognitive, normative or strategic dimensions. *The cognitive dimension* is how the actor understands the problem and goal, and if the instrument to achieve the goal is appropriate. *The normative dimension* also concerns how actors understands the problem, but are more concerned with whether the goals and means to reach those goals are relative to meaning and values, if it is right, fair and proper. *The strategic dimension* describes the response as calculative; an individual will respond according to his position in the society (Vedeld, Krogh & Vatn, 2003). When implementing a policy, it is necessary to know how people will response to the type of power used during implementation.

During the fortress approach, local people reacted with anger and mistrust to the authorities, as the government use of power deprived them of their original rights to natural resources. Therefore, they did not obey the official rules, and the authorities and park staff became the enemy. Local people did not understand the problem, neither did they see the instruments used to achieve the goal as appropriate and fair. Which is partly the reason why local people lost ownership to nature and wildlife and started poaching. CBNRM attempts to gain local peoples trust and make them understand why the approach is necessary to sustain natural resources and how it is beneficial for local people and their future generations. But for the approach to be successful, local people need to understand the problem and see the means to protect natural resources as fair and appropriate, which is a currently an issue in Zambia.

The goal of CBNRM will be to find the appropriate type of power; so local people will react in a normative way; understanding the problem of degrading natural resources due to humans overuse and seeing the instruments used to address the problem as suitable and fair.

2.4.1.3 *Policy instrument choice*

Policy instruments are used as a means of power to generate changes in a present resource use (Etzioni, 1988). Society uses different instruments to achieve behaviour change; economic, administrative, legal and pedagogic. The instruments are used to make people change adaptation and carry out particular measures in practical terms. It also reflects how society wishes to treat its citizens (Vedeld and Krogh, 1997). “Fine and fence” instrument used in the fortress approach, exemplifies a way of governance that did not have the citizens interest in mind and local communities were not treated well. However, after Zambia gained independence and became a democratic country, they understood that citizens must be treated fair as people in a democracy share the power of the state and everyone can participate in decision making, typically through voting. The participatory approach aims to achieve a fair and appropriate treatment of citizens.

Social values, attitudes and norms constitute what actors perceived as morally fair and unfair policy implementation (Vedeld and Krogh, 1997). People governed either respond to the policy in a normative or calculative way; choosing what pays off or what is consistent with preferred values. Either way, the response must be seen in relation to social background. The actor will view a policy in light of his social values, experience based knowledge, the response and discussions in the community as well as the signals coming from the wider society at large. Thus, attitudes, values and norms must be accounted for as, to understand what local communities perceive as fair policy implementation.

There is no universal response to instruments so the response must be contextualised. There is no optimal policy instrument for any problem or for any situation (Jänicke, 1995 and Sabatier, 1993 in Vedeld, Moulton & Krogh, 1997). For the implementers’ actors to understand which instrument is appropriate, they must have a sense of belonging to the community and have an understanding of how the community will respond.

2.4.2 Understanding values and their important role in governance of protected areas

Values strongly influence attitudes, norms and perceptions that local communities hold about protected areas. Understanding the values that people assign to protected areas is thus a fundamental component of park management and therefore an important aspect of this research.

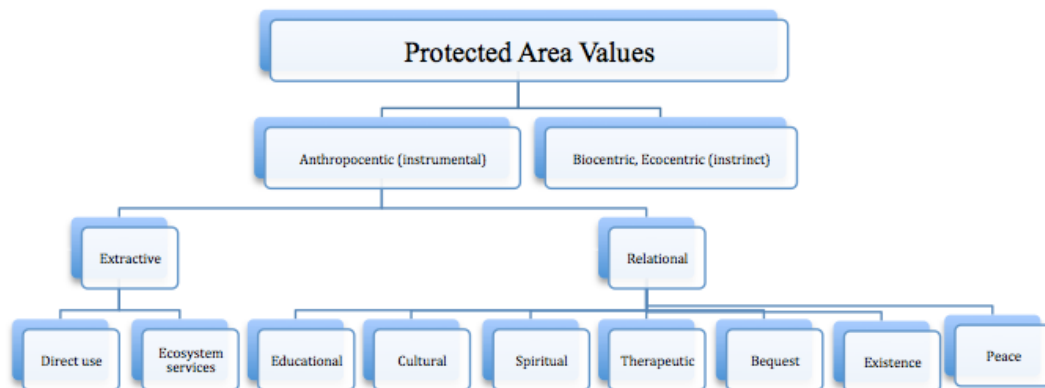
Managing protected areas includes making difficult choices between competing and often conflicting values. According to De Nogueira, E. C., Flores, C. M., Stegner, W., & Leopold, A. (2004) “protected areas are now managed from an ecological point of view that assigns greatest value to biological diversity” (as cited in Harmon & Putney, 2003, p.117). This trend has significant implications for the management of the social, economic and cultural values ascribed to protected areas by local communities, which is essential in CBNRM. In order to include these values in the management of protected areas, they must be identified. Therefore considerable attention must be given to examining the range and types of values inherent in protected areas and to considerate how these values can be measured and operationalized.

Lockwood and Winter (2004, p.11) provides a summary of the importance of understanding the connection between values and management.

“Making decisions that affect natural environments whether for their use, protection or conservation is an important role for government. It is desirable that such decisions are based on a sound appreciation of how people value natural areas. Given there are many stakeholders concerned about natural areas value measurement is fundamental to making rational decisions about their management.”

Nature and protected areas possesses a range of values. There are different frameworks for understanding the range of values ascribed to protected areas. This study chooses to use a recognized framework by Worboys *et al.*, (2005) based on Harmon and Putney’s theory (2003).

Figure 2: Classification system for protected area values



Source: Worboys *et al.*, (2005)

Values are divided in two sub-groups; *instrumental* and *intrinsic* values. Intrinsic values connected to nature are considered valuable regardless of human benefits and has been the common strategy towards protected areas. However, this research focuses more on the instrumental values, which might be more important for local people, than what has been acknowledged in resource governance. Instrumental values are considered as valuable due to the possible benefits for humans. Instrumental values are divided in two groups; *extractive* and *relational*. Extractive values are connected to the values people get from the natural resources through direct use, while the relational benefits contribute to physical well-being and also nonmaterial benefits Worboys *et al.*, (2005).

Relational values have also been defined as intangible by Harmon and Putney (2003), which explains that the values enhance the intellectual, psychological, emotional, spiritual, cultural, and/or creative aspects of human existence and well-being and is current given little attention in research regarding protected areas.

“It is time to examine the intangible values that impact the way we perceive, select, establish and manage protected areas without trying to force them into some sort of scientific, ethical or economic framework” Harmon and Putney (2003, p.4).

By recognizing the whole spectrum of values it will hopefully improve the selection and management of protected areas (Harmon and Putney, 2003). The following values are defined by Harmon and Putney (2003:7) and included in the analyze of relational/intangible values;

Bequest values: include those values that link people to their landscape through myth, legend, or history

Educational values and scientific values: protected areas are important educational institutions, as parks provide places to learn from personal experience and personal experience is among the most powerful and enduring ways for most people to learn.

Recreational values: are simply defined as activities pursued during vacation. The obvious aspect is the millions people who visits protected areas every year to enjoy recreational activities. However, the local peoples recreational values must also be considered. These values are increasingly being used by managers to guide their decisions.

Existence values refer to the value of knowing that protected areas exist and that they safeguard outstanding natural and cultural landscapes

Therapeutic values are attached to those natural resources that create the potential for healing, and for enhancing physical and psychological well-being. These are old values, as people have sought natural areas to gain healing for thousands of years.

Perception values or aesthetic values are important when deciding what kind of natural landscape receive protection

Peace values refers to protected areas ability to promote regional peace and stability through cooperative management of the areas or as “intercultural spaces” for development and understanding between people from different cultures

Categorizing values assign to the protected areas (GMAs) will help to understand the attitudes, values and norms that different communities and implementing actors hold and also if these factors varies between local people and implementers. It will also give answers to whether attitudes, values and norms are different in the local communities than implementing actors assume. Analyzing values attached to GMAs, park management will be better suited to develop a policy that fit the values in the local communities, which will make the policy more appropriate.

3 CHAPTER – RESEARCH METHODS

This chapter describes the different research methods used in this work, both during data collection and for data analysis. Ethical consideration and challenges that accrued during the research is also presented, as it might influence the quality of the data.

3.1 Research strategies

The research addresses the following objectives: 1) To investigate the institutional resource regime governing the GMA, 2) To examine particular interest, attitudes, values and norms among relevant stakeholders, 3) To examine the specific CBNRM approach through a resource governance model with an emphasis on participation.

The study was carried out in Namwala GMA outside of Kafue National Park in Zambia. The fieldwork began in mid-February and ended in mid-May, 2016. During the fieldwork, several officers and people working for ZAWA were interviewed to understand how the GMA is managed. After an initial round of such interviews, a questionnaire was developed, based on the theoretical framework and information from the interviewees, and this was used for interviewing local people and park staff and management. The main methods used, were key informant semi-structured interviews, semi-structured questionnaires and observations.

The research seeks to understand the resource regime governing Namwala in a comprehensive picture and it therefore looks at historical, social, political and cultural contexts, available resources in the GMA, accessibility to natural resources for local communities, management strategies and results of these strategies. Both qualitative and quantitative methodologies were utilized to gather comprehensive data. Qualitative data was helpful due to its dynamic and flexible characteristics, while quantitative data helped to understand trends, patterns and scales in the population. Statistical analysis was used to analyze the numeric answers from the survey, while coding was used to categorize and systemize the qualitative data from the survey.

3.2 Research design and methodology

When doing research, it is important to have a plan for how you want to collect data and analyze it. “Research design provides a framework for the collection and analysis of data” (Byman, 2012, p.46). This framework includes guidelines for

how the chosen research methods should be used to collect the appropriate data, for the specific research, and how this data should be analyzed. Research design, must not be confused with research method, which simply is a technique for collecting data (Bryman, 2012). In this research, the case study was chosen as research design and both qualitative and quantitative methods was used as research methods, which have become a common strategy to achieve enhanced “completeness” in answers (Bryman, 2012). The composition of qualitative and quantitative methods is referred to as a “mix methods” approach, which will be closer explained below.

3.2.1 *Mixed methods research*

Mixed method was used to obtain both qualitative and quantitative data, which provides comprehensive data on the objectives. Bryman (2012) states that improved completeness can be achieved by including both quantitative and qualitative questions in a survey. By including qualitative questions in the questionnaire, I was able to fill in some of the gaps left by the quantitative method. In this way I could improve my understanding of why people think the way they do, thereby making it is easier to see the bigger picture. The mixed method has the ability to limit biases linked to each method, whereby weaknesses of either quantitative or qualitative methods is counterbalanced by the strengths of either method (Bryman 2012).

Key stakeholders were interviewed in order to determine whom the implementing actors are, and a questionnaire with both qualitative and quantitative questions were developed to assess and measure interests, attitudes, values and norms among local communities and the various implementing actors. The quantitative questions were used to measure the relationships between variables, while the qualitative questions were used to understand people’s thoughts and behavior. This research still resembles a case study, as it is based on a single policy and an intensive examination of its implementation staff and its implication on a single community (Bryman, 2012).

3.2.2 *Qualitative methods*

Qualitative methods were used to identify the institutional structure in the GMAs and the actors who were implementing the CBNRM policy, using semi-structured interviews. The semi-structured interview has a general form, where sequence of questions may vary and the interviewer has the opportunity to ask further

questions, regarding what is being said (Bryman, A., 2012 p. 716). Thereby semi-structured interview was chosen in this research, so the interviewees would have room to explain the institutional structure in more detail.

Qualitative questions were also included in the questionnaire to achieve improved consistency and completeness in people's answers; to understand why they think and act the way they do. It was also used to check if they understand the questions correctly.

3.2.3 *Quantitative methods*

Quantitative methods were used to study interests, values, norms and attitudes of local people and implementing actors towards the GMA, the policy governing the area and the relationship between the two groups. Quantitative research aims to measure a phenomenon, by quantifying the collection and analysis of data (Langdridge, 2006). Data is information represented in numbers. The method is often related to a deductive approach, testing theories also to develop new theory. It may, in many cases, view the social world as objective and easy to measure. While qualitative methods is useful to discover meanings and to analyze why people do what they do, quantitative research is helpful when measuring for example attitudes in a large population, since it produces data that can be generalized to a larger population (Langdridge, 2006). The quantitative method is therefore useful in this research, since it aims at gathering information regarding interests, values, norms and attitudes among different groups toward a specific topic, developing generalizations and putting various relationships on scale.

3.2.4 *Selection of study area*

Namwala GMA was chosen as this protected area is currently experiencing challenges in the CBNRM implementation, and it was thus interesting to analyze how it might be possible to address these challenges. The selection of study area was based on recommendation from other researchers in the area, who are collaborating with NMBU. Namwala is well fitted for this thesis as it has a low-functioning institutional participatory structure and processes, and it is not performing as well as its neighboring GMA; Nkala. The GMA is under three different Chiefs and several ethnic groups, which can make policy implementation more complicated (Personal communication).

3.2.5 Data collection methods

This section describes how the different research methods were practised in this work.

3.1.1.1 Semi-structured questionnaires

To gather information about the main objectives, two structured questionnaire were designed. Both questionnaires were divided in six sections;

Part A consists of personal questions such as; age, sex, education level, occupation, and village.

Part B contains questions regarding the history of the GMA and its establishment processes to understand to what extent the history influences current attitudes.

Part C includes a valuation section based on Likert scales, to measure what kind of values and norms the different stakeholders values in the GMA.

Part D investigates how the different stakeholders view the policy and its formal rules.

Part E was developed to understand how local communities view Park Management and Park staff and the job they do in regards to CBNRM and also how they view themselves and own effort.

Part F investigates how the Park Management and Park staff view the local communities and how the locals view themselves in regards to resource governance.

The two questionnaires vary in terms of questions asked and their formulations, as one questionnaire was directed towards park staff and management, while the other towards the local community. The main challenge was to make the questionnaire understandable for local communities while still getting the information needed.

The questionnaires consist of a combination of quantitative and qualitative questions. Sometimes qualitative questions were used to double-check if the interviewee understood the questions, other times they were used to get an enhanced insight to peoples values, attitudes and norms.

The questionnaire gathered information about the interest, attitudes, values and norms among local communities, park management and staff regarding the GMAs, the policy governing these areas and the missing gaps in governance of

GMA. The questionnaire also investigates trust-issues between the community and the park management and staff.

3.1.1.2 Key informant semi-structured interviews

A few interviews were conducted to identify the stakeholders in Namwala GMA. Interviews with key stakeholders were used to obtain a comprehensive understanding of the conservation situation in Namwala. All interviews were semi-structured.

3.1.1.3 Observation and Informal Conversations

Situated in the same village as one of the ZAWA offices working in Namwala. I observed how the park staff and management were working. I also got substantial amounts of data from informal conversations with the park staff, the management and local people in the village. The ZAWA staff was generally very open, which made it possible to get a unique insight into their thoughts and perceptions about conservation and local people in the GMA.

3.1.1.4 Secondary data

This research uses secondary data before, during and after the collection of data. Secondary data was an important way of gathering existing research, by other researchers, on the relevant topic. It was an easy way to access information about the current conservation strategies and institutions governing protected areas in Zambia and how it is delivering to meet the goals of CBNRM.

3.2.6 Validity and reliability of data

Validity is important as it assesses whether or not the measurement used actually measure what it is supposed to measure (Lanagdrige, 2006). Using a questionnaire it was especially important to ensure that the questions were actually measuring what they were supposed to measure. To avoid biases and increase validity, the questionnaires were not given out to the participants, but rather carried out as a structured interview, where people who know the questionnaire and the local language were asking the questions. In this way the interviewer could explain the questions closely and also control if they understood that the interviewee would only be pretending to understand or misunderstood the questions. For example if an

interviewee reported that park staff was able to include everyone in their local community in natural resource governance, but later in the interview said that he/herself did not participate, then there would be a clear mismatch between the answers and the interviewer than had the opportunity to clear up the inconsistency.

Reliability concerns whether the research would produce same results several times under different, but similar conditions (Lanagdrige, 2006). To be able to generalize, the test should produce the same result several times to make sure that the findings is generalizable and not only a result of a single occasion. This means that the questionnaire should be able to produce the same findings in other Cheifdoms in the GMA. To increase reliability in this survey, I tested if there was correlation in the answers that were supposed to correlate.

3.2.7 Representatively

A total of 110 semi-structured questionnaires were distributed in this research. 57 of those were administered to local communities and 53 to park staff and park management. Key stakeholder interviews were also carried out with the senior CBNRM officer in Chilanga, Chief Kaingu, Senior Park Ranger in Mumbwa, Warden in Mumbwa and Senior Park Ranger in Nalusanga to get a comprehensive picture of the governance system. Additional informal conversations filled in the missing gaps.

3.3 Definition of some key terms

Implementing actors: Stakeholders who work with implementation of the wildlife policy. It includes park management and park staff.

Park management: Employees who have a managing role in governance of Namwala GMA. These people are responsible for implementation of the Wildlife Act, which includes CBNRM as an approach.

Park staff: Include employees who are working in the GMA itself. These people are the workforce on the ground level, who is implementing the policy rules in practise.

Local people: a term that is often used to describe rural populations. In this thesis it refers to residents living inside Namwala GMA.

3.4 Operationalization

Operationalization is a process where variables are clarified and made measurable (Langdridge, 2006). Using ordinal measurements, operationalization is essential, as it determines how the researchers are going to measure an emotion or concept, such as the level of self-confidence or aggression.

To measure interest, attitudes, norms and values among different stakeholders towards the park, the policy and towards each other, I used Likert scale type of questions, which is commonly used for measuring attitudes and opinions.

The Likert scale was developed by Likert (1923) to measure attitudes or opinions by asking people to state their agreement regarding a series of statements. The answers are fixed ordinal scales, where the degree of agreement/disagreement is measured on a scale from five to seven, with a neutral point being neither agree nor disagree. The responses are easily quantifiable and suitable for statistical analysis. There is also a certain form of freedom for the respondent who is not limited to a simple “yes” or “no”, but can rather express their opinions in a degree of agreement. The answers are easily to code, as an answer represents a single number.

However, the Likert scale does not measure the distance between the answers and therefore it is not possible to assign meaning to the distance between the points on the scale. Therefore it fails to measure the true attitudes of the respondent. An obvious problem is also the tendency for people to agree. This questionnaire was conducted as a structured interview and some of the respondents wanted to answer correct in regards to the interviewers expectations. When I was testing the questionnaire in my local village, one of the respondents asked the translator several times in the local language “what is the right answer?”. It is thus important to behave as neutral as possible and not react to answers that are surprising. Some contradicting statements were included in this study to detect people who only agreed to agree.

Clarifying the variables were challenging during the development of the questionnaire. It was difficult to transfer theory regarding institutions and participation into understandable questions for park staff and management and especially for local people. For them to state their agreement/disagreement, the statements must be formulated in a way they can relate to. Without knowing their true culture and everyday life, it was difficult to formulate statements that related to them

and their perceptions. I therefore sought help from the local people in the village where I lived. Through their help, I managed to gather information about the local people in the area and an understanding of their way of life. My translator was employed by ZAWA and is currently working closely with the CRB in the GMA where I lived. He therefore had insight into the challenges faced by rural people in this area, the collaboration challenges between ZAWA and the rural community and important considerations to make for the respondents to understand the questions. With the help of him and others in the village I was able to write questions which were particularly relevant to the specific area where I was situated.

3.5 Data Sampling

The objectives and research questions guide the sampling approach and provide guidelines for how one should collect data and who should participate. However, unexpected implications in the planned sampling approach can occur during fieldwork, especially if you do not know the area well. Thus, this research met with some challenges during the collection of data. The main issues concern transportation, poor road condition and lacking overview of household- and employee data.

3.5.1 Sampling for key informant interviews

Purposive sampling is used in most of the qualitative research. This sampling method selects sampling units because they fit to answer the research questions asked (Bryman, p. 418). It also goes the other way around; research questions imply which units are fit to answer. Purposive sampling was thus chosen, as this research needed interviewees who could explain the institutional structure in GMAs.

3.5.2 Sampling for questionnaire

The sampling frame consisting of all households in Kaingu Chiefdom in Namwala GMA and the ZAWA officers identified as the implementing actors in the qualitative interviews. From these groups, a sample was polled.

Purposive sampling (Bryman, 2012) was used for “park staff and park management”, as the subjects had been identified in the qualitative interviews. When travelling to the different ZAWA offices that were engaged in governing Namwala GMA, all available subjects who were relevant to the research were interviewed. All

together 52 questionnaires were conducted. The challenge was to get a total overview of employees working in Namwala GMA, as official numbers seemed not to exist. I got rough numbers from different Wardens in different offices, but these numbers are not trustworthy.

Sampling local communities was more difficult due to factors such as weather and road conditions, which influenced the accessibility. Thus, in this research it was necessary to use convenience sampling (Bryman, 2012) by choosing to interview the subjects who were physically reachable. The bookkeeper in the local CRB contributed with information regarding location of the different villages and who I could reach and not. Kaingu chiefdom is divided into 36 villagers who all have their own Headman. In the CBNRM program in Zambia, the different headmen are placed geographically in different VAG's. In Kaingu the 36 headmen are divided into 7 VAG's. The plan was originally to randomly select one headman in every VAG and interview 8 people in his area. Unfortunately, the rains came late this year, so the roads too many villagers were still under water. Therefore I had to use purposive sampling; sampling those villagers who were within reach. One headman from each VAG was chosen and people in his area were interviewed. Even though it was not randomly, I still managed to get a certain variety in the sample, as the different headmen all belong to different VAG's and are thus in different areas. From there I used snowball sampling (Bryman 2012), letting people from the household I interviewed lead us to the next household, since I did not know the area. I always interviewed the head of the household. Together 57 interviews were collected in Kaingu Chiefdom.

Unfortunately it was impossible to get the number of total households in Namwala. I was promised demographic information from each village under each headman. However, as the research came to an end, it became clear that no one could provide that data.

3.6 Data Analysis

The gathered data was roughly organized in the field; the qualitative interviews were coded and important information was gathered and kept safely, while the quantitative data were systemized in excel. After arriving back in Norway, the quantitative data was carefully systemized. The analysis, was however first conducted after writing the theoretical part of the thesis.

3.6.1 *Semi- structured questionnaires*

The answers from the questionnaires were first systemized in Excel and thereafter entered and coded in the statistical program SPSS. Some of the answers were formulated as qualitative data and were therefore coded accordingly and will be used to explain and give depth to the quantitative data. Excel will be used to make graphs, while SPSS will be used to do different statistical analysis.

The different statistical analysis include descriptive data to explore tendencies in the data and the Mann-Whitney U tests to analyse if there is a significant difference between different groups. The literature recommend the use of the Mann-Whitney U-test, a non-parametric test which does not make an assumption about the distribution of the population, as the appropriate inferential statistics for ordinal Likert scale data (Jameison, 2004). The Mann Whitney U-test uses statistical “ranking” to find the sum and average rank of each group so the U values can be calculated. Differences in the U values can then be used to determine whether the groups are significantly different or not. Note that the sum and average rank for each group change, as the sample and ranking change for each comparison (Clegg, 1982). See Glegg (1982, p.165) for full detail on ranking and calculation of the U values.

3.6.2 *Key informant semi-structured interviews*

The qualitative data gathered during interviews were used to provide background information and depth to the study. During the interviews, I took notes and wrote down key observations afterwards. All the interviewees for the qualitative interviews spoke English, so the interview was more like a conversation and less like a formal interview thereby obtaining good and hopefully more reliable information.

3.7 Ethical considerations

Informed consent is an important principal in research methods. All participants should be given as much information about the study as needed for them to decide whether they want to participate or not (Bryman, 2012). The participants in this study were informed about the intention of the research and the methods used, before they made their decision to join or not.

For the respondents who decided to participate with their own will, their data was treated with *confidentiality* which means that “the identities and records of

individuals are not identified or identifiable” according to Bryman (2008, p.118). This will protect participants from being harmed by others who dislike their participation in the research and who want the information they share to be kept secret. To ensure confidentiality participants name and address were not included in the questionnaires.

3.8 Research limitations and challenges

Being a young, female researcher who did not understand the local language or knew the area, I encountered several challenges, which limited my research in different ways. Key challenges included access to research area, weather conditions, access to research objectives, language challenges, misunderstandings, cultural differences and time management. The following section will explain these challenges more deeply.

3.8.1 Access to and weather conditions of the research area

Namwala GMA is located along the dirt road to Itzhi-Tezhi. The road is of very bad quality and parts of it were under construction during my fieldwork. As the rains came late this year, the road was severely damaged at the time I went into the area. There were no suitable cars in the village where I was situated. I only had a access to a small car that was very low and the driver had to stop many times during the drive due to bumps and holes. Thus, the drives were long and time consuming. The roads out to the villagers were even worse and sometimes I was unable to reach my destination, as the roads were still under water.

3.8.2 Access to data and interviewees

Generally, people were open and easy to talk with. However, some people showed some resentment and were reluctant to respond. The park management was skeptical to the length of the questionnaire and some claimed they did not have time for it. Others were difficult to reach, as they have many meetings and travel a lot. Some of the GMA staff at the grass-root level were skeptical to the questionnaire and thought the questions seemed too difficult. They saw it as a test and were afraid to fail by answering wrong. Local communities were usually very welcoming and positive, but sometimes other chores distracted them from the questionnaire and it was difficult to get back their attention. This was especially true for the woman, who was taking care of their many children.

3.8.3 *Language, understanding and interpreters*

Language barrier is an obvious problem encountered while doing research in a country where you do not speak the local language. Luckily English is the official language in Zambia and widely spoken. However, English skills often reflect their education level, as all education is taught in English. And since education is costly and schools are difficult to reach in rural areas, English is rarely spoken by the rural and uneducated. Uneducated and unable to speak the official language, further influences their level of understanding and reasoning. Consequently, it was thus possible for me to interview park management, who usually had a high level of education, but with regards to the local people and even park staff it was very difficult and sometimes impossible to communicate. Interpreters are thereby a necessity in the local villages, however it is important to note its limitations.

3.1.1.5 *Implications collecting data from park staff and management*

Generally it was easy to collect data from this group as many were educated and spoke English fluently. However, this it is a complex group with large differences between top management and community scouts and thus a huge variety in education and English skills. While some had a high level of understanding and spoke English fluently, others such as monitoring staff on the grass root had little education, limited understanding and low English skills. This was unfortunate as the questionnaire was most likely better suited for the people working in the offices, who generally had a higher level of understanding than the WPO and Community Scouts, who only worked in the GMA itself. This issue was solved to a certain degree by using translators, who helped to interview the people with low level of understanding.

3.1.1.6 *Implications collecting data from locals*

When interviewing locals, I had to depend on translators as no one in the local communities spoke fluent English. The translators were usually very helpful, but there were some issues that arose.

Firstly, when I did the interview myself I could ask questions again when it was obvious that the interviewee did not understand the questions. However, I did not have the same flexibility with the locals and this produced some invalid answers. When checking the answers from the questionnaires, it was obvious that some of the

answers were not coherent and it was sometimes clear that the participants did not understand the questions.

Secondly, I did not understand everything that was said during the interview, so some information might be lost. In the car ride back from the field, the translators would tell comments the interviewees had made, for example “no, the punishment is not fair, because they kill the poachers”. When I asked why they haven’t written that down, they answered, “because it is not true”. Such comments are valuable data and it is unfortunate that some might be lost in the translation process.

Thirdly, being escorted and translated by ZAWA officers might also have influence what people dare to report. If they have issues with ZAWA, they will probably be reluctant to report it.

Fourthly, the translators misunderstood some of the question and since I do not understand the local language, it took me time before I came to that understanding. This was so especially in relation to the questions that did not require a written answer. The last day, I realised that the question regarding “eviction of outsiders” were misunderstood by one of the translators, so the results from that question is not valid.

3.8.4 Time and logistics

This research took place in a rural area and both the ZAWA offices and the local communities were scattered over a huge area. With horrible roads and inappropriate cars it was very time consuming to travel to the different areas. Due to the need of car rental and gas it made costs high and long days were tiring for the translator, escort and driver. Luckily, the local people in my village were very helpful and friendly, and they did their best to help me.

4 CHAPTER 4: THE STUDY AREA

This research focuses on Chief Kaingu’s area, which lies in the eastern-central part of Namwala GMA, which is a buffer zone to Kafue National Park. The Chiefdom is mainly composed of two zones i.e. the northern and southern parts. The northern area is largely uninhabited, while the southern zone, Itumbi area, has approximately 1000 households (DSA, 2015). The chief rules over his subjects with involving 36 headmen. This chapter gives a detailed description of the area.

4.1 Namwala GMA

Namwala is one out of two GMA's within the Itezhi-tezhi District; the other GMA is Nkala Game Management Area. Namwala GMA stretches over 3,600 km² outside Kafue National Park and acts as a buffer zone to the strictly protected national park. The GMA purpose is to provide the local communities with access to utilize and managed natural resources to accomplish socio-economic and cultural development (Mkanda, Mwakifwamba, & Simpamba, 2014).

The GMA is located on the eastern side of Kafue National Park in the Itezhi-Tezhi District of Southern Province. Namwala GMA covers three traditional authorities, namely Chiefs Kaingu, Shimbizhi and Chilyabufu. Ila is the indigenous and dominating tribe in the area, but several other tribes also live there now due to migration from other areas in Zambia. The sample in this research includes people from four different tribes; Kaonde, Lozi, Tonga and Ila (LUP, 2012).

The main road is the Itezhi-tezhi–Mumbwa Road. The dirt road is under construction and is being developed into tarmac, but currently the conditions of the road are still very poor and parts can only be used during the dry season. The closest airstrip is in Ngoma, 30 kilometers from the GMA. It is also possible to reach the area by boats through the Kafue River (DSA, 2015).

The GMA includes the Kafue River Basin, which is important for power generation and sugar production. It is also part of the Zambezi River System, which is one of the largest hydrological systems in Africa. Fishery is highly productive and provides fish for Lusaka and Central Provinces (DSA, 2015).

4.3.1 Demography of Itezhi-Tezhi district

The geographical nature of the district has influenced the distribution of households. Most of the people have settled along the Kafue River or around Lake Itezhi-tezhi to access one of the most valuable natural resources for local people; fishes. Others have settled in the urban area for formal employment and trading. The rest of the population is scattered all over the plain to practice cattle rearing. This scattered population distribution has posed a big problem in delivering services (DSA, 2015).

Itezhi-Tezhi district population consists of 68,599 people with an annual growth rate of 4.8 % (CSO, 2010 in DSA 2015). It has a surface area of

approximately 15 000 square kilometers, giving a population density of 4.6 persons per square kilometer. Generally Itezhi tezhi's population is pre-dominantly rural. The urban population is only about 18,000 or 26 percent of the total district population (DSA, 2015).

4.3.2 General district administration

The District was established as a separate unit from Namwala District Council in 1997, when social and economic activities in the area increased. The District has most of the sector ministries. However, the District lacks office and staff accommodation. The following Government Departments, Parastatal companies and NGOs are present in the district according to DSA, 2015:

1. Government departments, which form the District Central Administration; Agriculture, Marketing & Co-operatives, Veterinary & Fisheries, National Agriculture Information Services, Forestry, Chiefs and Traditional Affairs. ZAWA, Council, Education, Community Development, Mother and Child Health, Police, National Registration, Immigration, OOP, ZANIS, ZESCO, ZAMTEL, ZAMPOST, Social Welfare, Community Development, ECR, IWAWA, Youth Coordinating Committee, ITT Radio, Water aid & Tour Operators.
2. Parastatals include: ZAWA, ZESCO, ZAMTEL and ZAMPOST, ZNFU.
3. Private Companies: Itezhi-Tezhi Power Cooperation – joint venture between Tata Africa and ZESCO.
4. Local non-Governmental Organizations include: ECR, CRS, ZPCT, CDC, Youth in Good Governance, SACCORD and FODEP.
5. International NGOs currently operating in the district: According to the DSA (2015), there are no international NGOs currently operating in the District.

4.3.3 *Chieftdoms and their political power*

Traditional leaders have been recognized as an authority in Zambia since the colonial period. There was a close relationship between the traditional and colonial authorities, as the colonial powers used the traditional authorities to govern the local communities indirectly through the Native Authorities structures. In return, the traditional authorities received recognition, protection and government patronage (Simutanyi, 2013). However, traditional authorities lost some of their authority, when the colonial government pulled out of Zambia.

Zambia became a sovereign state in 1964 and the new national leaders resented the close relationship that had existed between the colonizers and the traditional leaders and they were suspicious to the Chiefs and their power. Though they were sceptical, the Chieftaincy was not abolished like it was in Mozambique and Tanzania. Chiefs role as leaders for the community were respected to some degree in Zambia, although there was and still is some tension between the state and the traditional leaders. Chiefs control most of the land in Zambia and they enjoy authority and respect over the people in their Chieftdom. Concerned about their traditional power, the modern political leaders have attempted to undermine Chief's authority, while still continue to recognize their influence over their communities as guardian of traditional land and customs (Simutanyi, 2013).

During the First and Second Republics under President Kaunda, Chiefs authority structures such as native authorities and native courts were abolished or regulated to insignificance. Since the Chiefs had enjoyed these powers, since the pre-colonial time, the removal of traditional authority left resentment and lack of community regulation by the Chiefs. While Kaunda and his government weakened the positions of Chiefs, they recruited some selectively chosen Chiefs to sit in the ruling power structures. This was viewed as undermining the traditional customs and during the multiparty democracy that started in 1991, they decided in 1996 that "a person shall not, while remaining a Chief, join or participate in partisan politics" (Simutanyi, 2013) denying Chiefs the right to participate in politics. The decision was controversial and started a heated debate. Some argued that it was unworthy of Chiefs to participate in politics, while others argued that it is every citizen's right, including the Chief. The debate remains unresolved, but politicians still do seek the support of traditional leaders during elections (Simutanyi, 2013).

Wanting to re-formalize Chiefs political influence, the House of Chiefs was re-established in 2003 under President Levy Mwanawasa, it previously existed in 1981. The re-establishment recognized the traditional authorities important roles in community development and local government to a certain degree. It functions as an advisory body to the Government on traditional, customary and other matters referred to it by the president. This gives them the possibility to influence politics on matters such as traditions and customs, even though Chiefs or traditional leaders in general are not allowed to participate in active politics (Simutanyi, 2013).

There has been several efforts to allow Chiefs to participate in politics again, but they now compete for authority and influence with local authority and it is this competition, which has provoked the debate on what role chiefs should play in their localities. Today, Chiefs can only participate in local councils through an appointed representative. It is discussed that lifting the ban on the Chiefs possibility to participate in politics will not enhance their status, as their status in modern politics remains low and they depend on the position they have in the House of Chiefs (Simutanyi, 2013).

Despite the reluctance to Chief's involvement in partisan politics, political parties still seek support during elections, since Chiefs can use their position to influence their subjects. Some Chiefs also publicly support a specific party in order influence the elections. So even though Chiefs may not have as much official political power and influence has they enjoyed in the colonial time, it must be acknowledged that they are not politically neutral and that they still have power to influence political processes in Zambia (Simutanyi, 2013).

4.2 The biological environment

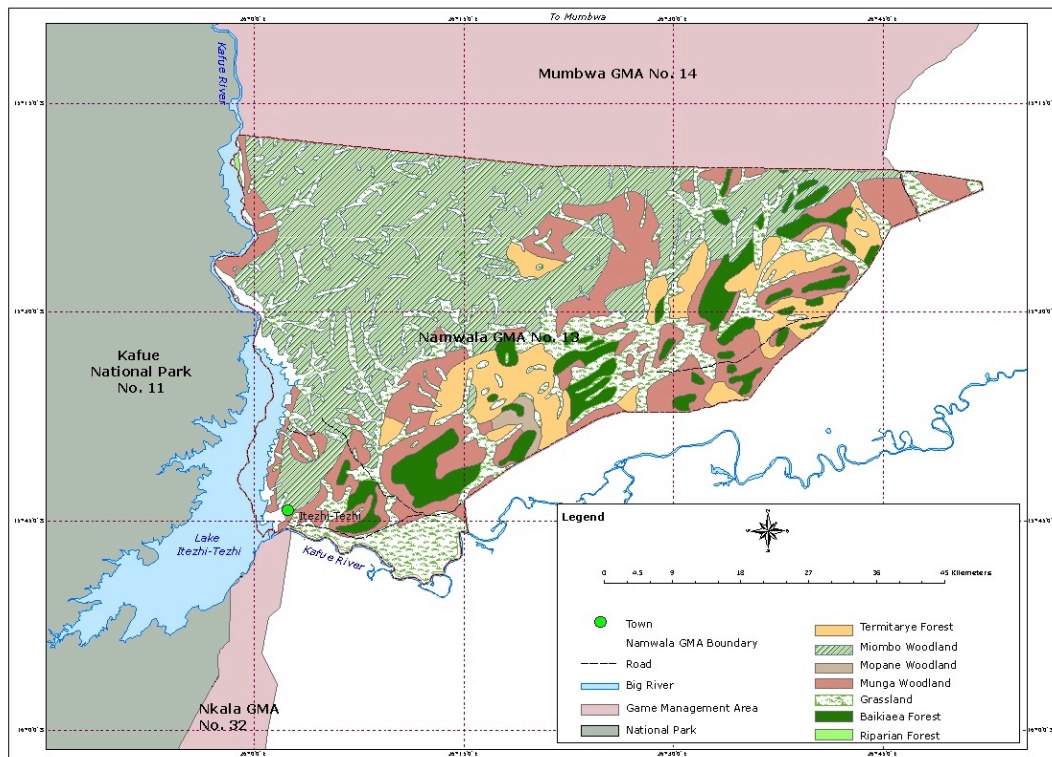
The biological environment includes a description of the natural resources found in the GMA. The data is collected from Namwala's Land Use Plan (LUP) that is produced by ZAWA, implemented in 2012 to 2022; it is revised every five years.

4.2.1 *Vegetation*

Namwala GMA largely consists of woodlands, thickets and shrubs. The vegetation types include the miombo woodland, mopane woodland, mixed forest, baikiaea forest, munga shrubland, termitaria and grasslands.

The mimbo woodland cover a large area in Namwala and is found along the upper part of the GMA from Mweengwa checkpoint to Kaundu gate, which is about 10km from Itezhi-tezhi town centre. It stretches up to the Kafue River where it merges with Acacia species. The miombo provide important habitat for sable antelope, waterbuck, kudu, warthog and roan (LUP, 2012).

Figure 3: Vegetation Types in Namwala GMA, Zambia, 2012



Source: LUP, 2012

4.2.2 Fauna

Namwala GMA has a varied fauna with fish, reptiles, birds and large mammals. Fish stocks are found in Lake Itezhi-tezhi, Kafue River and various streams from these water bodies. Fisheries are important for both commercial and non-commercial purposes (LUP, 2012). The largest reptile is the Nile crocodile, which is an important species for trophy hunting. Other reptiles include snakes, lizards i.e. water monitors, and tortoise. The area is home to numerous bird species including species such as “*Bubulcus ibis*, *Ceryle rudis*, *Ardea cinerea*, *Anhingarufa* spp, *Burhinnus vermiculatus*, *Plectroproeus gambensis* and *Alpochen aegytiacus e.t.c*” (LUP, 2012:12).

Over 20 large mammals have been recorded in Namwala GMA as common species. The common species are listed in Table 2.

Table 2: Common large mammal species in Namwala GMA, Zambia, 2012

Species	Scientific Name
Buffaloes	<i>Syncerus caffer</i>
Bush Pig	<i>Potamochoerus porcus</i>
Bushbuck	<i>Tragelaphus scriptus</i>
C/Duiker	<i>Sylvicapra grimmia</i>
Eland	<i>Taurotragus oryx</i>
Elephants	<i>Loxodonta africana</i>
Grysbok	<i>Raphicerus Sharpei</i>
Hartbeest	<i>Alcelaphus scriptus</i>
Hippopotamus	<i>Hippopotamus amphibius</i>
Impala	<i>Aepyceros melampus</i>
Kudu	<i>Tragelaphus strepticerus</i>
Lion	<i>Panthera leo</i>
Oribi	<i>Ourebia ourebi</i>
Puku	<i>Kobus vardonii</i>
Reedbuck	<i>Redunca arundinum</i>
Roan Antelope	<i>Hippotragus equinus</i>
Sable Antelope	<i>Hippotragus niger</i>
Warthog	<i>Phacochoerus aethiopicus</i>
Defassa Water Buck	<i>Kobus defassa</i>
Zebra	<i>Equus burchellii</i>

Source: (LUP, 2012)

Aerial surveys indicate variations in population numbers of some of these animals, see Table 3. The current wildlife-stock rate is estimated to be below 10% of the GMA's carrying capacity (LUP, 2012).

Table 3: Population Estimates from Aerial Surveys of some Large Mammals in Namwala GMA, Zambia, 1994 to 2008

Species	Population Estimates				
	1994	1997	2004	2006	2008
Bushbuck	-	-	119	-	-
Duiker Common	-	24	84	16	50
Eland	50	-	-	-	-
Elephant	-	-	127	-	-
Greater Kudu	174	162	93	47	21
Hartebeest	323	112	59	-	645
Hippo	-	213	-	-	624
Impala	-	349	34	-	-
Oribi	-	49	-	-	-
Puku	211	49	602	79	-
Reedbuck	-	-	34	-	-
Roan Antelope	-	-	8	267	-
Sable Antelope	509	162	542	550	1,337
Warthog	236	74	127	63	161
Waterbuck	-	-	17	142	221
Baboon	-	-	-	-	50
Vervet	-	-	-	-	94
Cattle	-	-	-	-	3,158
Sheep and Goats	-	-	-	-	652

Source: (LUP, 2012)

4.2.3 Fish stocks and species

The fishing season in Lake Itzhi-tezhi begins in March and ends in November with a fishing ban that lasts from December to February every year. Lake Itzhi-tezhi holds a variety of fish species and there is relatively high catches on selective species, such as breams and brycinus, which are commonly known as Nantongo locally (DSA, 2015).

4.3 Land and land-usage

All GMA's are established on customary land under the jurisdiction of Chief's and therefore land in Namwala falls under the authority of Chief Shimbizhi, Kaingu and Chilyabufu. Land is held communally, which means that residents in a village borrow land from the Headman who is their traditional leader on the village level. The Headman is given authority to govern land and his subjects by the Chief. However, the Chief needs to be involved if people want to move or immigrants want to settle on his land (Mkanda, 2014).

Their main land-use forms include wildlife conservation, agriculture (crop production), grazing domestic animals and collection of diverse forest products; mushrooms, fruits, firewood and building poles. Cultivated crops in the area include maize, cotton, sweet potato, groundnuts and cassava. Maize is their most commonly produced crop, followed by cassava especially in Kaingu Chieftdom. Livestock is commonly held by local people and the most common are cattle, goats, pigs, chickens, ducks and pigeons. Other livelihoods activities include charcoal production, logging, artisan fishing, carving, pottery and weaving. The current wildlife-stocking rate is estimated to be below; 10% of the GMA's carrying capacity (LUP, 2012).

There is some mining activities in Kaingu, but the activity is reported and at a small scale. The activity includes exploitation of semi-precious stones such as amethyst. However, there is inadequate information regarding the life span of the mine operating there and also the quantities of minerals extracted (DSA, 2015).

4.3.1 Livelihoods

The total population of Namwala GMA was estimated at 35 154 in (LUP, 2012). Ila, who are cattle-herding tribe, is the dominating tribe in the area. Other tribes in the area are Lozi and Tonga. Culturally, the Ila tribe practice Ikubi, paying last respect to the dead after one year and succession of widows through sexual cleansing. These cultural traditions have contributed to high incidence of STD, such as HIV/AIDS in the district (DSA, 2015). Polygamous marriages are very common among the Ila tribe and extended family groupings are highly valued. As a result, most family sizes range from 8 to 12 members and causing inabilities to sustain them effectively on the annual household produce. The consequence is the high prevalence of malnutrition in the area.

Most people are farmers and this is also their main source of income. The

most commonly products sold locally are fresh and sour milk, eggs, minced meat and sausages. However, agricultural production is not reliable due to recurrence of drought and floods. The communities also receive revenues from hunting and royalties from the lodge, fishing and employment in tourism facilities in the area near Kafue National Park (LUP, 2012).

4.3.2 Land-use problems

ZAWA refers to eight categories of land-use problems in the GMA: wildlife, forestry, agriculture, water, fisheries, mining, heritage, and administration and management. The different problems associated with the different categories are summed up in the Table 4 made by ZAWA (LUP, 2012).

Table 4: Major Land-Use Issues and Concerns Affecting Namwala GMA, Zambia.

Land-Use Aspect	Issue/Concern
Wildlife	<ul style="list-style-type: none"> - Loss of wildlife habitat due to conversion of land into human settlements, wild fire, logging, charcoal production and agricultural. - Declining wild animal populations due to poaching - Human-wildlife conflicts - Underdevelopment of tourism due to poor access roads, inadequate accommodation facilities, and insufficient marketing and promotion
Forestry	<ul style="list-style-type: none"> - Loss of vegetation cover due to indiscriminate cutting of trees for timber products, charcoal and agriculture - Uncontrolled fires started usually by beekeepers, charcoal burners, poachers and farmers - Uncontrolled harvesting of forestry products
Agriculture	<ul style="list-style-type: none"> - Heavy use of pesticides and insecticides which pollutes the environment - Prevalence of tsetse flies which results in Livestock Diseases especially trypanosomiasis
Fisheries	<ul style="list-style-type: none"> - Declining Fish Stocks due to due to overexploitation of fish stocks - Non-Compliance with Fish Ban - Poor Fishing Techniques and Processing Techniques
Water	<ul style="list-style-type: none"> - Lack of good quality water - Community incentive dam operating rules

Mining	<ul style="list-style-type: none"> - Environmentally insensitive mining practices resulting in loss of habitat - Poor decommissioning of the mines which does not consider environmental rehabilitation
Heritage Resources	<ul style="list-style-type: none"> - Lack of inventories - Lack of interpretive facilities
Administration and Management	<ul style="list-style-type: none"> - Inadequate land administration system - Inadequate capacity for law enforcement and extension services - Inappropriate institutional structures for community participation

Source: LUP, 2012

4.3.3 Implications of in-migration to Namwala

Chiefs and Headmen's reluctance to follow traditional procedures for allocating land to immigrants gave rise to unregulated in-migration into Namwala in the 1990's (Mkanda, et. al 2014). By allowing migrants to settle in the conservation area, the Chiefs tried to re-claim authority over land they had lost when the GMA was established (Simasiku et al., 2008). Migration did not used to cause a threat to the GMA, since they were controlled by traditional rules and leadership that denied them access to the area set off for conservation. But around the millennium, the stream of immigrants got out of control and they settled in the conservation area, which they viewed as idle, vacant land. Livelihood activities such as cultivation and charcoal production, led to degeneration of the soil and overuse of resources such as honey and wildlife (Mkanda et. al. 2014).

The local people complained to their Chiefs about the destruction of habitat caused by the migrants. The Chiefs offered the migrants alternative land, but they refused to move. The case was taken to court and the migrants were eventually forcibly removed in 2010. All together 144 households with 1 252 individuals comprising 6% of the entire population of Namwala GMA were evicted (Mkanda et. al. 2014).

Even though many migrants were evicted in 2010, the area still has several unplanned human settlements and illegal immigrants. This is a great concern, as they are clearing large parts of forest to establish farmland and this is causing a continued risk for loss of wildlife habitation.

4.3.4 Land-Use Zoning Schema

GMA's are protected areas for multipurpose-use, where wild animals and people should be able to coexist. To enhance the possibility of this coexistence, the area has been divided into different zones. Five management zones are identified in Namwala; Wildlife Conservation Zone, Development Zone, Buffer zone, Tourism Zone and Special Use Zone (LUP, 2012), see Figure 4.

The Wildlife Conservation Zone is the second largest zone covering approximately 36% of the GMA. It is located in the northern part of the GMA bordering Mumbwa GMA in the north. In the south it is bordered by the buffer zone and in the west by the Tourism Zone. The zone contains critical wildlife habitats and has therefore been set aside specifically for wildlife conservation and utilization.

The area enjoys a protection to a certain degree, but some activities and developments are still permitted. Licensed hunting is permitted by ZAWA to both residents and non-residents, but the zone only allows two hunting concession blocks. Wildlife camps will exist to support law enforcement activities by WPO and CS. Heritage sites shall be maintained and developed for cultural resource development. The road between Itezhi-Tezhi and Mumbwa Road will continue to exist as the main road and maintained to support operations of ZAWA, CRBs and safari companies. Since this area is set aside for wildlife, human settlements and activities are not allowed. Settlements will be relocated without compensation. Local livelihood strategies such as livestock grazing, logging for commercial purpose and commercial and traditional fishing are not allowed. Neither is photographic safaris allowed, since it would disturb hunting, which is an important source of income for the GMA.

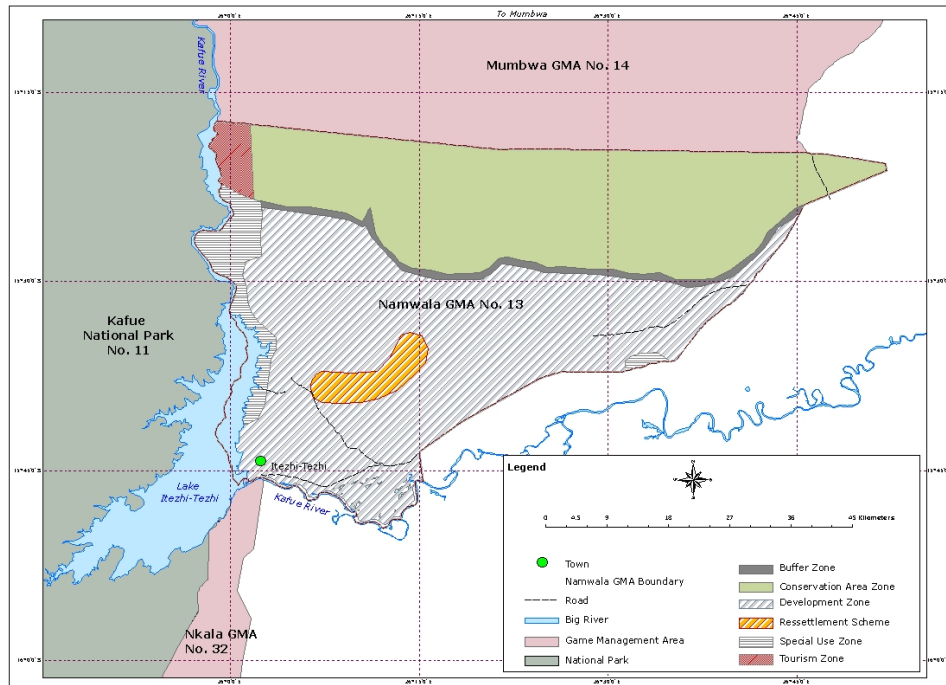
The Development Zone is the largest zone and covers about 39% of the GMA. The zone was established to provide for socio-economic development for local people and for development of infrastructure. The zone is thereby set off for human settlements and activities and is currently heavily settled and cultivated by several households. Settlements are in general controlled by traditional leadership, except in areas of the zone where there are animal corridors, grazing areas, flood-line areas of rivers and local forests reserves. Livelihood activities such as; crop production, livestock grazing, harvesting of trees (only for traditional use in Kaingu) and both commercial and traditional fishing is allowed.

The Buffer Zone is the smallest zone and covers only 6 % of the GMA. The zone stretches from east to west, separating the wildlife conservation zone and the development zone. The zone is established as an effort to avoid human-wildlife conflicts by separating the wildlife conservation zone and development zone with a distance of 1 kilometre.

The Tourism Zone constitutes approximately 11% of the GMA and is located in the western part along the Itezhi Tezhi Lake. The area stretches from the Kafue River to the Wildlife Conservation Zone. The zone is set off to non-consumption use and activities such as game viewing and photographic safaris as forms of sustainable resource utilization. Hunting, human settlements and activities are not allowed, as this will disrupt the wildlife habitation, which are the main attraction.

Special Use Zone covers about 8 % of Namwala GMA and is located on Lake Itezhi Tezhi. This area facilitates fishing and recreation with some permissible developments such as; lodges, bush camps and, fly camps; wildlife camps and staff houses; public roads and management roads (LUP, 2012).

Figure 4: Land-Use Zoning Scheme for Namwala GMA, Zambia, 2012



Source: LUP, 2012

5 CHAPTER 5: RESULTS AND DISCUSSION

This chapter presents results from the fieldwork and discusses the findings. The results are based on both qualitative and quantitative data gathered during fieldwork. Additionally, secondary data is included to enrich the findings and to better describe the resources, different stakeholders and the rules they follow.

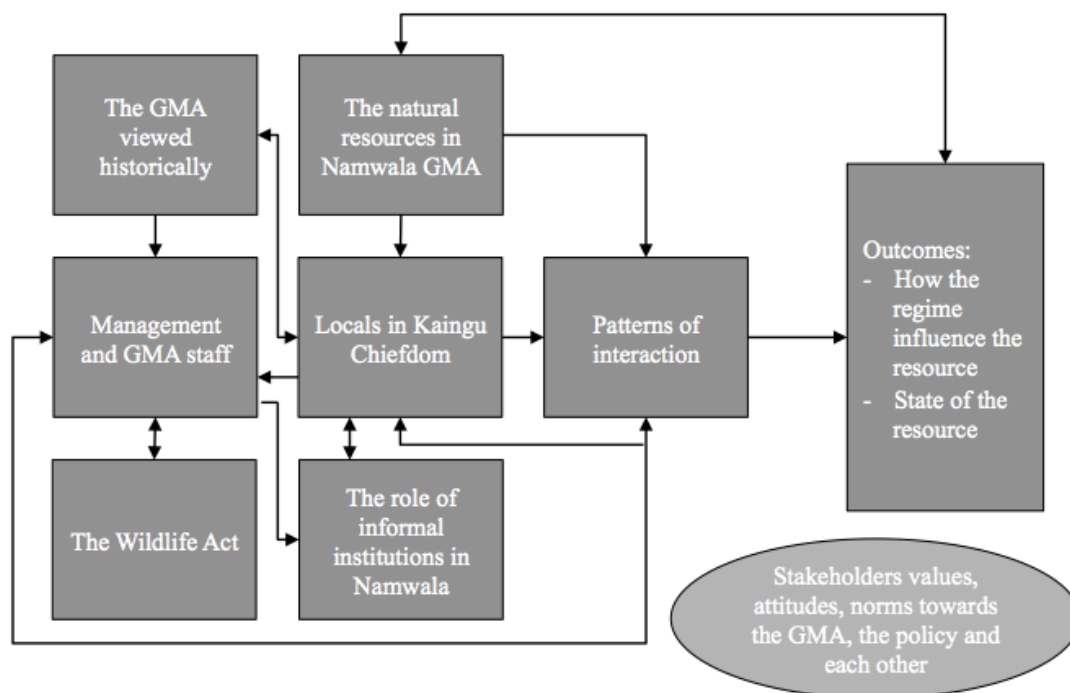
The results and discussions are built on a case study from Zambia and their governance of a Game Management Area (GMA). GMAs in Zambia were formally established in 1971 to act as a buffer zone for National Parks. The purpose of this area is to facilitate sustainable use of natural resources, by giving local people restricted access to valuable natural resources. This way local communities can benefit from wildlife and other natural resources without over-exploiting them. GMAs are a permanent part of Zambia's conservation strategies and in the initial period it was considered as a sufficient measure to achieve a legitimate approach towards conservation. However, a comprehensive review of the GMAs performance showed a contradicting story; poaching had not been reduced significantly, the local communities are little involved in conservation and the local communities living in and close to the GMAs are still poorer than the rural average in Zambia. (Simasiku *et al.*, 2008).

The Zambian Wildlife Authority has been responsible for managing wildlife and protected areas from 1999 to 2016, following the Wildlife Act. The Wildlife Act from 1998 and the establishment of ZAWA were supposed to foster local participation and in this way improve biodiversity. However, ZAWA has not successfully managed to implement community based natural resource management (Simasiku *et al.*, 2008). To understand how the implementation can be improved, this thesis analyses the resource regime governing Namwala GMA and focus on how attitudes, values and norms can influence and be influenced by the governance regime and local communities willingness to participate.

The analysis is rooted in institutional theory on community participation and uses institutional concepts and theory trying to understand how implementation of CBNRM can be improved. Vatn' (2005) framework for environmental governance and institutional regime, which was presented in chapter 2, is used to structure the analysis and Figure 5 explains the use of this framework with ethnographical information. The aim is to map the current institutional regime governing Namwala

GMA in Zambia with the various actors and their attitudes, values and norms and also examine the interactions between physical and social structures of the GMA to see how well the regime fits to govern the attributes of the resource. By analyzing the resource regime, it is possible to see how well the system is performing and where changes seem to be sensible to be made.

Figure 5: The framework for analysing the resource regime in Namwala GMA, Zambia, 2016



Source: Vatn (2005)

This chapter focuses on nine important themes in the resource regime; attributes of the natural resource, the governing institution, the local institutions, how the stakeholders interact, the informal rules in the community, stakeholders' attitudes, values and norms toward the GMA, the key management challenges and the outcomes of the resource regime.

The chapter starts by presenting the attributes of the resource to explain why the resource is challenging to govern and what kind of attributes are important to consider. Vatn (2012) explains that attributes of the resource is important to include when studying a resource regime, as it will influence the outcome of the resource directly, as well as, actors' interaction process.

Further, the governing stakeholders are presented, including their organization and the rules they follow to understand how institutional structure and social identity can influence governing actors. The discussion is based on Cleaver (1999).

The interaction process explains possible challenges that might occur when different stakeholders collaborate within a formal structure. It examines the relationship between the governing and governed actors, since how they view each other will influence the success of the policy. The analysis is based on Vedeld, Moulton & Krogh, (1997) and their theories on collaboration between actors with different social backgrounds.

Informal rules are examined to better understand the social institutions with cultural, traditional and spiritual values and practices that exist in the local community in regards to resource governance. Understanding the local institutions is important in order to succeed with implementation of formal participatory policy approaches, according to Cleaver (1999).

Stakeholder's attitudes, values and norms toward the GMA are explored to understand how these characteristics influence implementation of CBNRM as an approach to wildlife conservation. As argued in chapter 2, attitudes, values and norms are important because it influences how people make decisions and why they behave in certain ways. Possible differences between stakeholders will be explored, to see if these influence the outcome.

Thereafter the largest challenges observed within the environmental resource regime during fieldwork and literature review are presented and discussed. The section focuses on some key conflict issues, such as threats towards the GMA, revenue sharing, cost and protection of property and poaching. These issues exemplify key challenges in the resource regime related to attitudes, values and norms and how these characteristics influence local participation.

At the end of this chapter, the outcomes of the resource regime are summed up, by presenting the key management challenges and how this influence the resource, people's livelihoods outcomes and welfare levels.

5.1 Attributes of the resource

Determining attributes of the resource makes it possible to understand whether regulating access and use is a problematic issue (Vatn, 2005). The characteristics of the resource will both influence the outcome of the resource directly and how people

act and interact with each other. As wildlife is a scarce resource in Namwala GMA, the resource stocks are vulnerable to depletion, as too many people would like to use it. These aspects may further influence which institutions are developed to govern the resource and the motivational structures these institutions may create (Vatn, 2005).

Wildlife in Namwala is renewable, but still rival resource in consumption and presently partly depleted. The nature of the resource also makes it difficult to exclude people from using it, as there are no physical boundaries and the valuable natural resource exist in the same area where people who would like to utilize it live. This makes regulating access an important coordination or management challenge. It is therefore important to determine how people value and understand the attributes of GMA, as this will also give an insight into their perceptions of the GMA from which their actions are based.

Namwala GMA is viewed by many as a valuable area, as it contains many natural resources which are important for several different people. The local communities enjoy fertile land, idle for agriculture and livestock grazing. The area also includes access to Lake Itzhi-tezhi and the Kafue River Basin where people can enjoy access to fish with high catches of breams and brycinus. It also includes natural resources such as honey, wild fruits and caterpillars. The most debated resource still remains wildlife, which is highly valued by national actors, international actors as well as local people, who have different opinions on how access to the resource should be governed.

Due to these characteristics, several people all over Zambia view the resource as attractive and this has caused high numbers of in-migration. The area is productive with many natural resources and has thus attracted people from other areas looking for idle land, which are vital for rural livelihoods. The Chiefs in the area has welcomed these new inhabits, as a way of development and as a way of claim authority over lost land (Simasiku et al., 2008). The local communities are thus a diverse group with different ethnicities.

Despite the large numbers of in-migration, the area remains undeveloped and largely inhabited. The population is scattered, which makes it difficult to provide services and for the local communities to communicate and collaborate. Access to the area is limited as the roads are poorly managed and conditions are bad. Even though local people are living in an area with numerous natural resources, their access to

these resources are limited by the Wildlife Act and floods and drought make agricultural practices unreliable and thus the local communities remain poor.

The resource is also poorly managed; having inadequate land administration system, lack of capacity for law enforcement and extension services and inappropriate institutional structures for community participation (LUP, 2012). So even though the population is low in numbers, the area is still experiencing human encroachment damaging the natural resources; shifting forest to agricultural land, cutting trees for charcoal production and thus limiting habitat for wildlife. Poaching is also reported as a key threat to wildlife. Fish population is decreasing; since people are not following the fish ban and use poor fishing techniques such as poison and fine knitted fishing nets (own fieldwork). One way of managing the GMA is through the “Land-using Schema”, separating the area into different zones for different purposes, due to GMAs multipurpose (see 4.3.2). This research will study how effective this scheme is in Namwala.

5.2 Management and Staff in the GMA

This section presents a description of *Management and GMA staff*, who are implementing the policy governing the GMA. The description includes an explanation for how they operate, which rules they follow and importantly how they view the rules/policies they are supposed to guard and carry out. This is necessary in order to understand if the governance structure fits to govern the natural resources in Namwala with its particular attributes. The management staff consists of people in ZAWA who plan activities and implement the wildlife policy, while the GMA staff are the people on the ground level of the organization who are executing and monitoring the GMA.

5.2.1 Demography

53 people from the management and GMA staff were interviewed. Males were highly over-represented with 92.5%. No women were found among the GMA staff, but some were in administrative positions. Only 11.3% were under 25 years, 49.1% were 26-40 and 39.6% were 40 and above. Various tribes are represented in the sample; Kaonde, Lozi, Chewa, Ila, Tonga and Ngoni. 72.3% are from rural areas, while only 27.7% came from urban areas. Their education level are higher than for people from the local communities and all have attended secondary schools, 20.4% have completed college and 13% has gone to university. All six ZAWA offices

involved with the governance of Namwala GMA were visited during collection of data and thus the sample included people from all offices. 42.6% of the people interviewed worked within management of the GMA, while 35.2% were Wildlife Police Officers (WPO) and 18.5% were community scouts (CS).

Table 5: Demography table for management and staff in Namwala GMA, Zambia, 2016

Gender	
Male	92.5%
Female	7.5%
Area	
Urban	27.7%
Rural	72.3%
Age	
Under 25 years old	11.3%
26-40 years old	49.1%
Over 40 years old	39.6%
Level of Education	
Secondary	64.2%
Collage	20.8%
University	15.0%
Position	
Management	44.2%
WPO	36.5%
CS	19.3%
Ethnicity	
Ila	37.7%
Lozi	13.2%
Tonga	13.2%
Kaonde	9.4%
Chewa	7.5%
Ngoni	1.9%
Other	17.1%

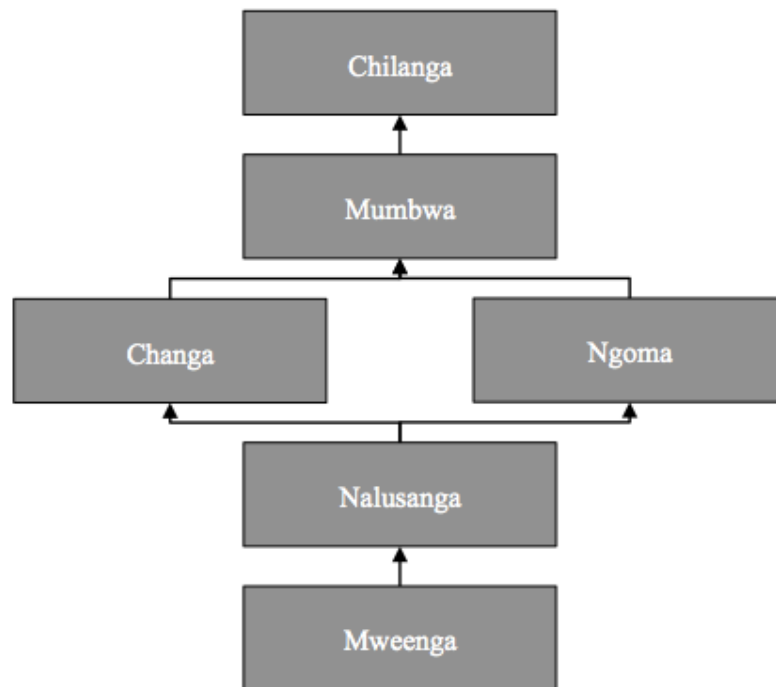
Source: own fieldwork (2016)

5.2.2 ZAWA management structure

ZAWA's management structure in Namwala consists of a network of institutions, distributed over a large area with many different actors. The GMA staff are spread around the area in different offices both inside and outside Namwala GMA. On the grass-root level, the Community Scouts (CS) and Wildlife police officers (WPO) are patrolling the GMA. The GMA staff comes from different offices in and around Namwala. *Mweengwa* is a subsector under *Nalusanga* and provides staff to monitor and control the GMA. *Nalusanga* also have GMA staff working under their office. They also take on management responsibilities and run operations in the GMA. These operations include monitoring and controlling activity in the GMA, with an emphasis on reducing poaching and deforestation, and controlling settlements and agriculture. Operations follow guidelines from the General Management Plan 2011-2020. The operations are organized by two area management units; one office based in *Chunga* and the other in *Ngoma*.

Chunga is responsible for the North-East, the North-West and part of the Central Areas. *Ngoma* is at the same administrative level as *Chunga*, with equal responsibilities, but situated in another geographical end of the GMA, near Lake Itezhi-Tezhi. The office in *Ngoma* is responsible for the southern part of the GMA. *Chunga* and *Ngoma* report to the office in *Mumbwa*, which is the central regional office. *Mumbwa* reports again to the headquarter in *Chilanga*, situated in Lusaka. *Chilanga* reports to The Ministry of Tourism and Arts and they report to the central government. The organizational map is presented in Figure 6, while Figure 7 is showing the geographical placement of *Chilanga*, *Mumbwa* (town), *Namwala* (town) and Lake Itezhi-Tezhi and Figure 8 is showing the geographical placement of *Namwala* GMA.

Figure 6: Organization map for ZAWA’s management and GMA staff working in Namwala GMA, Zambia, 2016



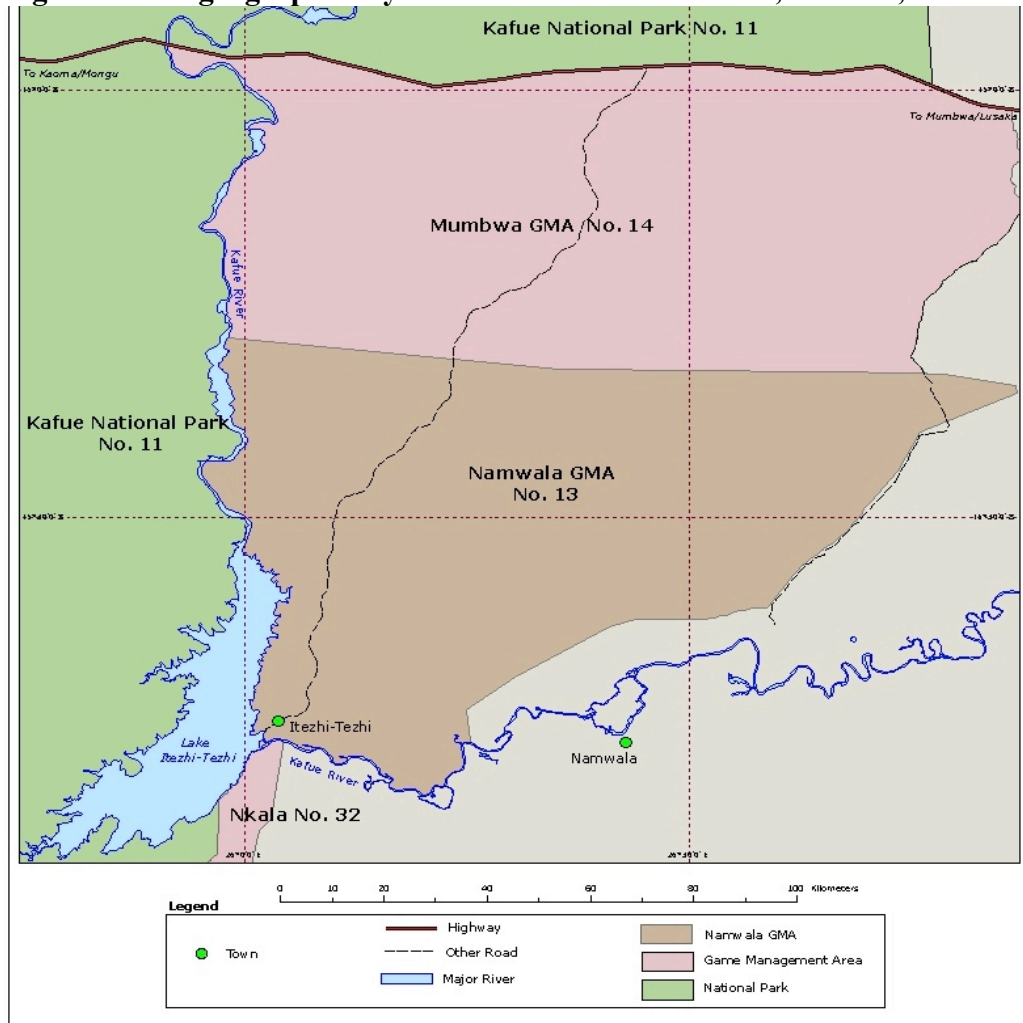
Source: own fieldwork (2016)

Figure 7: The geographical placement of Chilanga, Mumbwa, Namwala and Lake Itzhi tezhi, Zambia, 2016.



Source: google.maps.com (01.11.16)

Figure 8: The geographically location of Namwala GMA, Zambia, 2016



Source: LUP (2012)

5.2.3 ZAWA's management and GMA staff in Namwala: the different positions

The hierarchy in terms of instruction and decision-making, is important in ZAWA and people respect the Warden with great authority. The order from high to low authority in the different regional and area offices are distributed in the following order:

1. Area Warden
2. Senior Ranger
3. Park Ranger
4. Principal Senior Wildlife Police Officer
5. Senior Wildlife Police Officer
6. Wildlife Police Officers
7. Community Scouts

5.2.4 Source of funds

ZAWA receives funds from issuance of hunting licences, park entry fees and lease fees from Area Management Units (AMU), which constitutes 76% of their total income. Additionally they get financial support from other supporting institutions, see Table 6.

Table 6: Presenting the funds received by ZAWA from 2008 to 2010

Source of funding	2008 Amount K	2009 Amount K	2010 Amount K
Revenue raised from hunting licenses and PA fees	42,865,000,000 (59,6%)	53,359,000,000 (80,9%)	51,444,000,000 (76%)
Government Grants	5,863,000,000 (8,2%)	4,506,000,000 (6,8%)	4,730,541,335 (7%)
World Bank	15,165,419,117 (21,1%)	6,232,374,417 (9,5%)	1,864,192,746 (3%)
Royal Norwegian Government	7,548,000,000 (10,5)	836,000,000 (1,3%)	8,247,461,929 (12%)
Other Cooperating Partners	354,000,000 (0,5%)	832,000,000 (1,2%)	1,289,558,596 (2%)
Other income to the Area Management Unit (AMU)	152,000,000 (0,2%)	209,000,000 (0,3%)	X
Total	71,947,419,117 (100%)	65,974,374,417 (100%)	67,575,754,606 (100%)

Source: GRZ sited in Report of the Auditor General, on the Management of Wildlife (A.O. Chifungula, 2014). 1 USD = 5251.6409 ZMK (30. September, 2014)

According to Simwanza (2007) about 8% of ZAWA's budget is spent in GMAs, even though GMAs generate more than 50% of ZAWA's revenues and constitute more than 70% of the land under their stewardship. According to data from 2006, ZAWA spend most of its money on salaries and other administrative costs amounting to 48% and 19% respectively of its expenditure. Unfortunately, newer data on this issue is not available.

5.2.5 *Supporting institutions*

Besides ZAWA's own management and GMA staff, the GMA also receive support to improve monitoring action from an NGO who collaborates with the government. Game Rangers International (GRI) started Kafue Conservation Project (KCP) in 2013 to support the security and integrity of wildlife in Kafue National Park, including the neighbouring GMAs. Their goal is "to ensure the long term sustainability of viable eco-systems for the benefit of local people" (GRI, 22.10.16). They are therefore involved in several areas in order to improve conservation; community outreach projects and education, research, park maintenance and developments and lastly and most importantly in their effort; law enforcement and training of park and GMA staff, which is central in their operations.

GRI is supporting and empowering ZAWA's workforce, providing training and equipment. They work closely with SAPU, which is ZAWA's Special Anti-Poaching Unit, with a base at Hook Bridge inside the park. This base was visited during the data collection for this research and some of the responses from the questionnaires emanate from staff from this base. SAPU is supported by KCP and is an intelligence Led Law Enforcement Unit, aiming at eliminating poaching and disrupting illegal wildlife trade routes within Kafue National Park and the neighbouring GMAs. SAPU's day-to-day anti-poaching operations are commanded and coordinated by ZAWA officers from the ZAWA headquarters with oversight by the ZAWA's Senior Warden for Kafue National Park (GRI, 22.10.16)

Even though this supporting institution increase the capacity of park and GMA staff, their effort is not decreasing illegal activity in the protected area. According to GRI, their increased monitoring activity only results in more poachers being caught, but their effort has not led to less incidents of illegal activity. This clearly shows that increasing formal monitoring staff cannot stop illegal activity in protected areas, but still mostly emphasized in the collaboration project.

5.2.6 *The formal rules*

The GMAs are controlled by the state, which represents all residents, but state-authorized representatives make decisions concerning resource use and these decisions are formulated as formal rules. The formal rules consists of two types, "those defining who are members of the commons and not and those defining the

rights to use various involved benefits streams; which benefit streams can be utilized by which members, to what degree and maybe also by which means” (Vatn, 2012:256). The formal rules serve as guidelines for how the GMA should be managed. According to the Wildlife Act, these rules should be developed together with the community and enforced by ZAWA. The Wildlife Act includes guidelines to assure community participation, but as noted before, these guidelines are not always followed.

5.2.6.1 *The Wildlife Act*

The main policy that directs ZAWA in their management of GMAs, is the Wildlife Act No.14 2015. This Act is an amended version of The Zambia Wildlife Act number 12 of 1998, which was enacted to integrate CBNRM in GMA management. The Act also initiated the transformation of the Department of National Parks and Wildlife Service into the Zambian Wildlife Authority (ZAWA), which were supposed to increase transparency and decrease corruption. To enhance community participation according to the CBNRM approach, the Act from 1998 includes rules for establishment of CRBs to work in partnership with ZAWA, to decrease poaching and enhance community livelihood (Simasiku et. al.). The Act is supposed to provide CRB with power to negotiate in conjunction with ZAWA, co-manage agreements with tour operators and manage the wildlife under the jurisdiction of the Act. This authority to co-manage natural resources in the GMA is intended to increase their economic situation and social well-being, according to the Act (The Redd Desk, 2016).

Management and GMA staff are important actors in the resource regime, since they are responsible for implementation of the Wildlife policy. Without resourceful governing actors, the policy cannot be expected to deliver. The demographical characteristics and the structure of management and staff can influence how successful the policy implementation is. Management’s attitudes, values and norms towards the policy will also influence the implementation and what they prioritize when governing the GMA, which is explored below.

5.2.7 Management perceptions of the policy

To understand how management and staff view their own policy, it is of interest to look at what they view as important and what they want from the policy in the future.

Table 7: Management and GMA staff perceptions of the wildlife policy in Namwala, Zambia, 2016

	Strongly disagree	Disagree	Agree	Strongly agree	Do not know
Conservation via protection	0%	3,8%	17%	73.6%	5.6%
Including local traditions	0%	0%	25%	75%	0%
Formal rules are best	5.7%	9.4%	26.4%	54.7%	3.8%
Local punishment mechanisms can work	24.5%	20.8%	28.3%	22.6%	3.8%

Source: own fieldwork 2016, N=53

A total of 77.4% of management and staff said that it is a goal that the GMA should have an even stricter conservation status in the future. The management and staff stressed that it is necessary to prevent illegal activities and improve conservation. 73.6% also strongly agree that conservation with high level of protection is important to protect the biodiversity in the GMA.

This shows that even though Zambia is supposed to follow a community-based approach to conservation, a large percentage of management and staff still believe that “the fortress” approach is the best way to manage the GMA. However, there were some people who contradicted that the GMA needs stricter conservation statues and rather emphasized the importance of sustainable use for locals, as locals need the benefits from the natural resources. Thereby, there is a small presence of CBNRM attitudes, but it is clearly not the mainstream view in the management/staff institution.

In measuring whether locals and their rules should be included in the policy, the responses differ. Everyone strongly agree or agree that local traditions, values and

customs must be included to establish a good policy. However, most people agree that formal rules are the best way to govern the GMA.

The view on whether the local communities can be trusted with the responsibility for punishment, the result is very varied, as seen in Table 7. Some said that locals could be trusted with minor issues. Others emphasized that locals cannot be trusted, as some are poachers. It seems like the general pattern is that the management and staff want locals and their traditions to be included in the policy, but they do not trust them with the responsibility of taking care of and protecting the GMA. The management and staff seem to believe that a stricter policy would be more appropriate, since it would enhance protection of the biodiversity. They agree that local traditions, values and costumes should be included in the policy, but they do not agree on whether the local communities can handle the responsibilities of punishment mechanisms. This shows that management and staff have little trust towards the local community as a capable institution to participate in resource governance. Statistical analysis did not display any differences between management and staff's view of the policy. How local people feel about their ability to participate will be discussed below.

5.3 The local communities

The local communities are represented by people living in the Kaingu Chiefdom in Namwala GMA. Villagers from different Village Action Groups (VAG) were chosen as interviewees, as VAG are geographically divided apart. This selection method therefore includes people from different geographical locations. A description of their social institutions is given, since it will likely influence the policy implementation process. Emphasis is put on the motivation towards participation and how it is influenced by social constraints and complexities in the community, using Cleaver's (1999) theory on critical institutionalism. Cleaver argues that these are key issues, as it will highly affect the success of the policy.

5.3.1 Demography

A total of 56 interviews were conducted in 7 different VAG's under 7 different Headmen in Kaingu Chiefdom. The different Headmen areas include include; Musunga, Moomba, Shiatuba, Nshiutiba, Kayeka, Kaunga, Muweena and Shaapama. Of the people interviewed, 41.1% were women and 58.9% men. Four

different tribes were captured by the sample selection procedure; Kaonde, Lozi, Tonga and Ila. Ila was the highest represented tribe, see Table 8. Other tribes include Chawa, Mbunda, Luvale and Muzezuru. In this sample representing the local community, the education level is low, 64% had only primary school and one person had gone to college. Even though the education levels are low, 57.1% stated that they have received training within farming. 71.4% of the people interviewed are in fact farmers, the remaining 28.6% reported various occupations, such as fishermen, housewife and CRB members.

Table 8: Demography for local people in Kaingu, Namwala, Zambia, 2016.

Gender	
Male	58.9%
Female	41.1%
Age	
18-25 years	10.7%
26-40 years	39.3%
40 and above	50%
Level of Education	
Primary	64.3%
Secondary	26.8%
Collage	1.8%
No education	7.1%
Profession	
Farmer	71.4%
Other	28.6%
Ethnicity	
Kaonde	8.9%
Tonga	12.5%
Lozi	21.4%
Ila	39.3%
Other tribes	17.9%

Source: own fieldwork (2016), N=56

5.3.2 *The traditional local institutions*

During the pre-colonial time, many local communities in Zambia used totemism and traditional institutions to conserve wildlife. They named their clans after wildlife animals and these animals were traditionally prohibited to hunt. Each Chiefdom was different, with their own rules, traditions, beliefs, customs and values that governed wildlife. They also had their own prosecution system for people who did not obey the rules. Hunting was performed, but they followed set quotas and the meat had to be distributed to the community and not only benefit the hunter. Hunting was also usually conducted in relation to traditional ceremonies. Many traditional communities in the pre-colonial time were thus able to conserve wildlife in Zambia. However, chiefdoms in Namwala were never totemic and therefore they do not have the same spiritual connection to nature and animals. Traditionally, they were more involved with harvest of natural resources and traditional hunting, than with fostering spirits of conservation. This may influence their current attitudes towards participation in resource governance and motivation to participation cannot be taken for granted (Mkanda, et. al. 2014).

5.3.3 *Local communities and participation*

For successful outcomes from CBNRM as an approach, local participation is essential. As mentioned in chapter 2, one of Ostrom (1999) key principles for successful governance of common pool resources emphasized the importance of local peoples' possibility to participate and influence the policy and formal rules. The policy must be fitted to the community and their rationality, and the instruments must be adjusted to the anticipated response in the community. Assumptions regarding local communities, their social structure and motivation are often made by implementing actors in development project who do not know the communities. To be able to include them in resource governance, the local institution must be analysed in order to understand what kind of institutions in the community that might foster or limit participation and involvement (Cleaver, 1999). Factors that might limit community participation include; cultural values and norms, material, strategic or norm-based reasons for avoiding engagement in natural resource management. The relevance for these limitations were examined in Namwala.

5.3.3.1 *Community motivation for participation*

Motivation for participation is essential for encouraging people to work for conservation of natural resources. A policy that assumes social rationality among people and expect people to participate for the common good will most likely fail if the motivation in the local society is rather build on maximizing economic rationality and optimizing own utility (Vatn, 2012). Looking at the current wildlife policy in Zambia, the policy does not seem to match the local rationality in Namwala. For example, 73.2% said they would only participate in resource governance if they received personal benefits, which is contradicting to the common benefits the policy is based on. Besides, the policy distributes benefits to the local community through the CRB board, which does not entail a transparent process and people in the local communities do not know how much money is received or what it is used for. According to Vatn (2005), a policy will probably fail if it does not match the specific social institution with its attitudes, values and norms. Cleaver (2012) emphasizes that different social norms and interests within a community are too little emphasized in the participation literature. We did indeed find differences in our population; from people who were most motivated by personal benefits to other people who wanted to participate due to their interest in resource governance (14.3%).

The most common motivation for participation observed in Kaingu seems to correlate with economical thinking, assuming that people want to maximize their own profit and benefits. However, other people said they want to conserve the natural resources only because they are interested in conservation. Whatever their motivation is, revenue-sharing must be a transparent process, where people can influence and decide how the benefits should be distributed. If not, local people will not be aware of the benefits from wildlife and they will not feel or be included or involved.

It is also important to acknowledge Cleavers (2012) argument regarding people's lacking desire to participate. The wish to participate is not given. Some may also choose not to participate because they feel it is easier not to; they may be occupied with other chores or they might feel that the participation initiative is just another intervention implemented from above. Some people in Kaingu answered that they did not have any motivation to participate, "*I do not want to participate, I just want to do my own things*".

5.3.3.2 *Social constraints*

Social constraints in a society can also sometimes limit participation for some groups, however local people did not mention this as an issue. Culture is often seen as a resource in participation theory as it creates a unified community with common knowledge, attitudes, practices, values and norms. But culture can also limit participation, by rules that exclude for example women and poor people from social arenas (Cleaver, 1999).

Even though local people did not mention cultural constraints as a problem, observations during the fieldwork showed that women were excluded from many conversations and some men hesitated to let their wives be interviewed. Some women, especially young women, also became very shy and quiet when their husband was present. Therefore, interviews with women always had to be done without men present, even though the men did not always appreciate it. The submissive role that some women have in these communities can clearly limit their possibilities to participate in resource governance. Another constraint for women is their responsibility to cook and take care of the children, which limits their free time and their ability to leave the house. The situation is different for elderly women who enjoy a certain respect. The elderly women I met were generally open, freely spoken and reflected, in contrast to the younger more subdued women.

5.3.3.3 *Complexities in the local institution*

Surprisingly, the local communities did not report high belief in themselves as conservationists, see Table 9. 35.5% disagree that they have the capacity to govern natural resources. Many people actually emphasized that they do not have the knowledge or equipment to govern the natural resources. They also argued that it is difficult to govern valuable resources in the community, since there are large differences regarding interests in the community. Some people want to conserve wildlife, but they explain that there are poachers among them as well, including people with high authority. They do not stand together as an entity, there are large variation within the community. This is in line with Cleaver's (2012) theory on participation which argues that local communities are changeable in time and place, with different interests and constraints such as solidarity and conflicts.

It was also reported as a problem that some people see community scouts as traitors if they report other locals for illegal activities. The family of the offended feel

betrayed and they do not see that the community scouts are “just doing their job”. This also supports Cleaver’s (2012) argument that a community includes shifting alliances, power and social structures. They are not only a desirable social entity with preferable values, their institution is more complex and it is important that these variations in the community are accounted for, before a policy can be successful.

Table 9: Complexities in the local community reported by local people in Kaingu, Namwala, Zambia, 2016

	Strongly disagree	Disagree	Agree	Strongly agree	Do not know
Local capacity to govern NR	3.6%	32.1%	46.4%	7.1%	10.8%
Group mentality in the local community	7.1%	42.9%	25%	25%	0%

Source: own fieldwork (2016), N=56

According to the data, local communities in Namawala have a complex social structure and composite of different tribes. Secondary literature explains that the local community in Namwala were never totemic, which mean that they never had a traditionally way of protecting wildlife from hunting (Mkanda, et. al. 2014). They describe themselves as a varied group, which range from people who want to protect wildlife, to others who want to poach, making collaboration within communities difficult. Furthermore, in-migration of different tribes can also explain and increase the differences within the communities. Despite the differences existing in the local communities, almost everyone stated that they would participate in resource governance, if they received benefits and thereby this becomes an important incentive for including people in resource governance. Cultural constrains can limit woman from participating and must therefore be acknowledged by management.

5.4 Patterns of interaction

Patterns of interaction describe and explain the frameworks for interaction and how stakeholders relate to each other within this framework when governing natural resources. How stakeholders view and treat each other will influence the policy implementation and therefore this relationship is investigated. Vedeld, Moulton &

Krogh (1997) theory on the producer environment is used to explain how important the relationship is between those governing and governed actors.

5.4.1 CBNRM management structure in Namwala

The CBNRM structure is supposed to be established as a bottom-up approach. However, this is not necessarily how it works in practice. In Zambia, this structure is composed of basic grassroots organizations called Village Action Groups (VAG). In Namwala GMA there has been established 7 groups, which are distributed according to geographical location. The VAGs are supposed to represent the communities and their voices regarding natural resource governance. The election process is democratic, as the community members vote to decide who they want to represent them. All villagers under a headman select one VAG representative and these selected people from different Headmen areas within a VAG district makes up a VAG. One representative from each VAG is selected to sit in the Community Resource Board (CRB) see Figure 9.

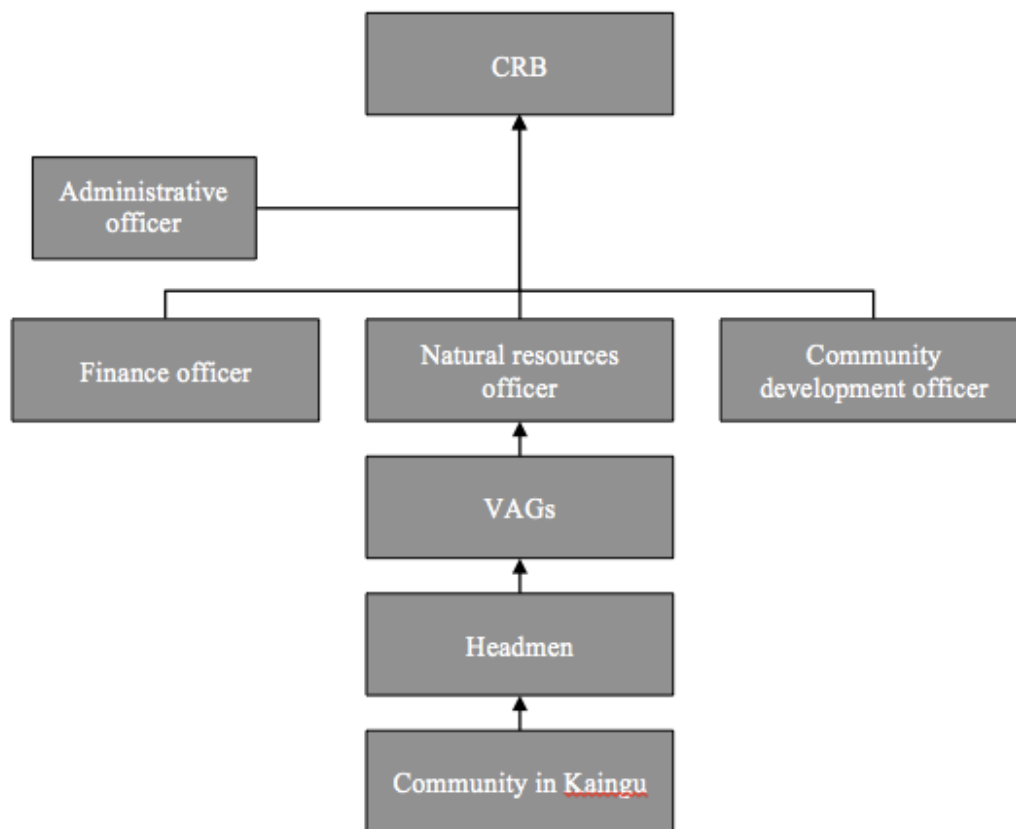
CRB consist of one representative from each VAG and they choose among themselves who becomes the chairperson. Every CRB also needs to have representatives from the Traditional leadership and Local authority. A representative for the chief is chosen to represent him in meetings. In Namwala, there are three Chiefs; Chief Kaingu, Chief Shimbizhi and Chief Chilyabufu, so there are three CRBs. This research focuses on Chiefdom Kaingu and the people who belong to his chiefdom. The chief is the patron of the CRB board and has some power, although limited.

All villagers within a Chiefdom are represented in CRB and CRB is the highest management authority at community level regarding issues over wildlife management. The board is supposed to receive revenues from the wildlife activities in the GMA. ZAWA's head office in Chilanga is responsible for distributing these funds to the different CRBs.

The roles and responsibilities of the CRB includes; appointment of Community Scouts to exercise the laws under the Wildlife Act under the supervision of a Wildlife Police Officer; development and implementation of management plans in consultation with ZAWA, which reconcile the various uses of land in the GMA. Additionally, they have to take on other responsibilities that ZAWA may direct them to do.

The governance system is thus organized through several management levels, as Ostrom (1990) argues is an important principal for successful resource management. However, she also argues that governance structure will only succeed if all stakeholders in every level are involved. Thus, the level of local involvement will be closer examined.

Figure 9: The CBNRM management structure in Kaingu Chiefdom, Namwala, Zambia, 2016



Source: own fieldwork (2016)

5.4.2 The interaction between ZAWA and the communities in Namwala

There are two extension officers in ZAWA, who form a link between the CRB and ZAWA; one officer is located in Ngoma and the other in Mumbwa. These officers again report to the main office in Chilanga. In Chilanga there are two senior CBNRM officers who report to the principal Natural resource management officer. These two are responsible for arranging elections of VAG and CRB and they are also responsible for capacity building in these organizations.

A major concern in this management system commonly reported by people working with CRB is the election process. The elections of VAG's and CRB are too frequent; there is not enough time to build capacity in one board before the next one is elected. Additionally, the CRB members reported that the distance between ZAWA and the communities were too long. They stated that the extension officers rarely visited and did not know what was going on in the local communities. The local people are not aware of the participation structure that is supposed to give them authority to influence resource governance. Their little knowledge regarding the participation structure is presented below.

For local people to truly participate, they must be informed and have knowledge about the CRB structure in their village. As shown in Table 10, 87.5% of the local villagers do not know what VAG is and only 8.9% claim to know what the name of their VAG representative (see Table 10). They further do not know the name of the person who represents them in the CRB. When they do not know who represents them in the resource governance, it is impossible for them to truly participate in the process. The Wildlife Act is written in a bottom-up governance approach, but only one person in the community sample answered that the community is mainly making decisions regarding GMA management. 28.6% answered that they thought it was mainly ZAWA and the remaining 71.4% answered that it was ZAWA alone.

Table 10: Local peoples awareness regarding the participation structure in the policy, Kaingu, Namwala, Zambia, 2016.

	Yes	No	Do not know
Do you know the policy governing the GMA?	51.8%	21.4%	26.8%
Does the policy improve your personal economy?	41.1%	8.9%	50%
Do you know what VAG is?	12.5%	0%	87.5%
What is the name of your VAG representative?	8.9%	0%	91.1%

Source: own fieldwork (2016), N= 56

Measuring their awareness regarding the policy, 51.8% answered that they know about the existence of the wildlife policy. This is a rather low awareness level considering that the policy should include local people in governance of the GMA. However, the question is broad and qualitative data is needed to make firmer conclusions on what local people know and not know regarding the policy.

When people were asked whether the policy improved their personal economy, 41.1% answered yes, but no one explained how (see Table 10). According to the qualitative data, they do not get any direct benefits, but they have received some benefits through community projects in the past. Some people denied that they have received any benefits at all and said that the government is the main beneficiary from the GMA and poverty among the locals are increasing due to lack of access to natural resources.

The GMA is divided into five different zones; Wildlife Conservation Zone, Development Zone, Buffer zone, Tourism Zone and Special Use Zone. However, no one in the local community could name all five zones. 41.1% mentioned settlement area and conservation zone, but 58.9% did not know the name of any of the different zones. Therefore it is obvious that the boundaries to the natural resources are not clearly defined or known, and according to Ostrom (1999) this is a prerequisite for successful management of common pool resources. Not knowing the different zones can be understood as a violation of the intention behind the establishment of the GMA and is a strong indication that the GMA is not serving its purpose.

These results give the impression that community participation is very low, as they know very little about the policy rules and the participation structure.

5.4.3 The relationship between governing and governed actors

How different stakeholders view and cooperate with each other influence the performance of a policy. If a good relationship exists, this may facilitate good governance. Governance of protected areas includes stakeholders from different institutions and their differences may influence the ability to cooperate. The local institutions consist of formal and informal rules with common norms, roles and behavioral patterns, which may not be obvious for those who govern. The relationship would be more likely to work well if those who govern grew up in the community and had the same tacit knowledge (Vedeld, Moulton & Krogh, 1997).

In Namwala, the community scouts are from local communities, however they are not always working in the same area from where they originate. Scouts and WPO are offered housing where the ZAWA office is based and this might be far away from their home place. Besides, Namwala is a large GMA and villages are scattered around the area, making it difficult for local people to communicate and gain knowledge about people far away. The community scouts have, to a certain degree, a possibility to know the local communities. But for the people working in the management, the situation is different; most of the people are outsiders, knowing little about the local institution and their way of life. According to Vedeld, Moulton & Krogh (1997) it is more difficult for management to understand the community if they are not from the same place themselves and it therefore becomes difficult to adjust the policy to the specific community.

The physical distance between management living outside Namwala and local residents in the GMA, also affects the trust people assign to each other. Managers and staff have difficulties trusting the community with responsibilities to control wildlife. Likewise, the local communities feel it is challenging to trust managers and staff seeing them as authoritarian leaders in charge of a top-down approach and organization, which offers the community little opportunity to influence the governance of natural resources surrounding their villages.

The top-down approach is also apparent in management and staff's power use and instruments. There is little emphasis on understanding what local people consider as fair use of power and instruments, as they are expected to participate because management and staff argue it will benefit them both and the natural resources and they argue that "local need to realize the importance of wildlife". However, for a policy to be successful there is a need for instruments and goals that are perceived as fair and importantly, understood from their point of view. They must agree on the values and norms that lie as a base for the power use (Vedeld, Krogh & Vatn, 2003). Management and staff can not tell local people what is fair and not, this must be realized by the community itself, and thus the management and staff should study each community individually to understand how they think, including their interest, values, attitudes and norms. This way it is possible to understand how people will react to policy implementation and thereby adjustments can be made to increase the appropriateness of the policy.

By closer examination of the relationship between local communities and governing actors such as management and staff, this research seeks to understand how these two actors view each other in regard to conservation.

5.4.4 Local people's perceptions of management and staff as qualified governing actors

For locals to participate in resource governance, they must trust the management and staff and believe that these governing actors have their best interest at heart.

When the local people were asked if they feel that management and staff respect and have considerations for the local community, 33.9% answered “not at all” and 17.9% answered “to a minor degree”. This indicates that at least half of the locals feel to a little degree recognized by management and staff. However, they are not coherent in whether local people are viewed as an important actor in natural resource governance. Neither are their answers coherent on whether the management and staff are prioritizing conservation of natural resources, in favour of improving livelihood of local people. It seems as if there are varying views within the community on how they view the management and staff. This variation is also apparent when asking if the management are able to include everyone in resource governance; 39.3% disagrees, while 53.6% agrees. It does however seem like the answers from the respondents who agree cannot fully be trusted, since many of them also later answered that they were not involved themselves. Obviously, management are not able to include everyone in resource governance if the people who report it, are not included themselves.

Surprisingly, only few people reported that they have had any issues with the government or representatives from the government regarding wildlife or use of natural resources. This may be because they are afraid to report such issues to strangers from outside the community. Some of the people interviewed first mentioned issues they have had; for example that ZAWA officers had killed poachers, but when later asked about issues with representatives from the government, they did not mention these problems. They may also have misunderstood the question. When they were made aware of their inconsistent answers, some corrected themselves and answered that they actually have had some issues with government representatives.

The varying response exemplifies the differences that exist in the local communities. How they view the governing actors might reflect their personal relations and feelings towards the management. If they are happy because someone they know has been hired as a village scout or they have been appointed to an important position in CRB, they may have more positive attitudes towards the management. On the other side, if they are poachers, relatives of poachers or have had conflicts with representatives from the government, this will produce negative attitudes towards the governing actors. We see that the variations do not only exist between different communities, but also between different individuals.

5.4.5 Management and staff's perceptions of the local communities as qualified conservationists

CBNRM assumes local participation to accomplish sustainable conservation and improved livelihood for local people, but a prerequisite for local people to participate is the management and staff's ability to entrust the community with the responsibility to handle resource governance. If a trustful relationship does not exist between the local people and the management and staff, devolution of power will unlikely be given to locals and they will not have the opportunity to participate in resource governance. The results from this study indicate that not all management and staff were convinced that local people are competent conservationist or that they have the capacity to govern natural resources.

64.2% agreed that locals are resourceful and have unique knowledge regarding conservation and resource use, but the same amount of people thought that park management should be responsible for governing the GMA, because the community is lacking capacity to govern the natural resources themselves. Results that are further discussed in section 5.6 also shows that management and staff do not trust the community with the ability to defend themselves from wildlife, even though the law provides people with the right to do so. Many people interviewed among management and staff argued that local people would kill all wild animals, if they had the right to shoot animals that threaten their crop or livestock. This indicates a lack of trust in local communities with the responsibility to govern wildlife.

Interestingly, local communities do not have high beliefs in their community and their ability to govern natural resources. According to themselves, they do not have the knowledge and equipment to govern successfully. Additionally, the complex

local institution with a variety of different interests regarding wildlife and other natural resources makes it difficult for the community to govern such a resource.

It seems like management and staff have misunderstood the complexities in the local communities, believing that the culture forms local communities into a strong entity that can solve problems together. This way of viewing the community do correspond with Ostrom's (1990) theory on participation who argues that communities are resourceful and unified entities. However, it does not correspond with how the communities explain their own social structure. The complex institutional structures in the community resembles Cleaver (2012) description of communities in her revised theory on participation, explaining that local communities includes both solidarity and conflict, shifting alliances, power and social structures Cleaver (1999).

Due to the management and staff's lack of faith in local communities, devolution of authority to local people is unlikely to take place, since the possibility for locals to take advantage of the given power is believed to be present. The mistrust of local communities as conservationists seems also to be mainstreamed among people living in the community. Community's low confidence in regards to resource governance can be derived from governments' continued top-down approach, making them believe that their traditional knowledge regarding resource use is useless in a modern world. It can also be explained by the large numbers of in-migrants, who do not necessarily have knowledge regarding conservation and sustainable use of the area. Several people interviewed stated that many people do not know the consequences of overusing natural resources and that they need to be taught. It is therefore necessary to improve education on sustainability and natural resource use, so everyone, including the in-migrants, knows the consequences of overuse and the positive effects of sustainable use. By increasing locals' knowledge regarding conservation, they might acquire the confidence to govern such a limited and valuable resource and thus make management and staff trust them as conservationists.

5.4.5.1 *Summing up the interaction challenges*

The wildlife policy is established as a bottom-up approach, where the power over natural resources is supposed to be rooted the in local institutions, giving them authority to make decisions and recommendations over governance of land and other resources. However, people in the local community know little to nothing about the

existence of the formal participation structure. They view ZAWA as the powerful institution with full authority to take the decisions over natural resources, while they do not see themselves as potent at all. Management and staff believe local people can have important knowledge regarding resource management, but do not trust local people's ability to control wildlife. So even though CBNRM emphasizes the importance of local management, the conservation strategy in Zambia is still functioning as a top-down approach, similar to how it did during the fortress approach. Actors' lack of trust to each other must be improved if CBNRM shall function successfully; starting with building capacity in the community so they can regain their trust as capable conservationists.

5.5 Informal rules existing in regards to governance of Namwala GMA

As explained in chapter 2, formal institutions cannot explain all aspects of institutions nor be used to solve complex social relations. Recognizing local actors and their informal social institutions with values, norms, social networks and practices is important in order to overcome issues such as exclusion or inequity in social institutions such as local communities. Modern participation theory emphasizes that it is necessary to understand informal institutions to accomplish successful implementation of the formal rules (Cleaver, 2012). It is also important to recognize that actors are not passive individuals only influenced by institutions, they also influence institutions; values and norms is rejected or internalized, depending on the existing sanctions in the society (Vedeld, Moulton & Krogh, 1997).

Vatn's (2005) framework for resource regimes emphasizes the importance of also informal institutions with its conventions and norms when implementing a policy, as it is important that the new policies match the local culture and acknowledge the traditional rules and norms of the local community. Especially when trying to implement a new policy, the ability to change formal rules depends on the existing norms and the social coherence. It is therefore necessary to take care of the social capital of the regime, since it will increase the capacity to change institutions (Vatn 2005).

This research looks at the traditional rules, culture and spiritual values that exist in Namwala and how important they are for the local communities. All groups; GMA staff, management and local people were included so it is possible to analyze to what extent there is a difference between what management and staff think about

local traditions and culture and how local people perceive it. This will also reveal whether management and staff know the informal local institution, which this thesis argues is a prerequisite for policy implementation to be successful.

5.5.1 Management and GMA staff knowledge regarding the informal institutions in the communities

Formal institutions often fail to notice existing, informal institutions, when implementing a policy. A common, naïve approach is to view local communities as harmonic, unified institutions without social issues such as greed, inequality, elite capture and exclusion (Clever, 2012). They also often overlook established power relations and the way the community has governed their own society for centuries (Ostrom, 1990). For local leaders and authorities to be capable of understanding and handling participation in proper ways, they have to understand the local community where they want to implement the policy in question. They must also consider communities rationality, as the implementation of formal rules may change how people act and think and self-regulating structures might vanish if the policy is not adjusted (Vatn, 2005). This section presents findings on how the management and staff view the informal institutions in Namwala GMA, to see if the local institutions are recognized.

Table 11: Management and staff views on local informal rules and culture, Namwala GMA, Zambia, 2016.

	Strongly disagree	Disagree	Agree	Strongly agree	Do not know
Traditional rules in the community	1.9%	5.6%	30.2%	58.5%	3.8%
Management/staff respect traditional rules	5.8%	7.7%	26.9%	25.0%	34.6%
Importance of locals spiritual values	7.8%	13.7%	37.3%	35.3%	5.9%
Importance of locals culture values	2.0%	2.0%	24.0%	44.0%	28.0%

Source: own fieldwork (2016), N=52

The descriptive data indicates that management and GMA staff agree that local communities follow *traditional rules* and norms and that this govern their behavior. However, 64.7% does not know what kind of traditional rules and norms exist in the local communities in Namwala. 90.6% reported that local communities have sacred sites with *spiritual values* connected to these places in the GMA. Most people, see Table 11, agreed that the importance for these sites for local people is respected and acknowledged by staff and that local people are given access. *Cultural practices* such as honey collection and charcoal burning was reported as very important by less than half of the staff and is therefore not viewed as important as spiritual values.

Almost everyone working in the management or staff acknowledges that informal institutions govern local peoples' behavior. But they do not seem to know the rules, norms or values that are important for local people. Few interviewees could give examples of rules, norms, culture practices or spiritual values that are important for local people. Their lack of knowledge might indicate that they do not consider the informal institutions in place when implementing the wildlife policy.

5.5.2 *The importance of informal institutions for local people*

The informal institutions in the local community are studied to understand what the locals themselves consider as important and thus what is crucial for management and staff to consider when implementing the policy. The informal institutions in a community may not be easy to identify, as local people may not be aware of norms and values that guide their everyday life (Vedeld, Moulton & Krogh, 1997). By understanding the informal institutions, it is possible to adjust policy towards the community, making the policy understandable and fair to the communities (Vedeld and Krogh, 1997).

As the findings show, the local people had different views on their traditional rules and culture related to GMA than the management and staff, both in terms of their use and their traditional management of natural resources.

57.2% do not think that their *traditional local rules* and institutions are applicable today. Local people and their Chief explained that traditional rules regarding the use of natural resources used to be important, but now the state has implemented a new formal system of governance and thus the traditional rules are less relevant. Ostrom's (1999) key principle explain this as very unfortunate. She argues

that government agencies shall not challenge local communities' own rules and institutions. It can also be that some people view themselves as best served by the new system, for example families who receive income from a family member who is hired as a village scout or in tourism activities. Or people who make money on poaching who feel it is easier to perform illegal activities when monitored and penalized by the governmental authority than by their own community.

Based on qualitative answers given by locals when asking about what kind of traditional rules are still practiced, there is an almost even distribution between locals who do not know their traditional rules (37.5%), locals who claim that traditional rules no longer exists (28,8%) and locals who claim they still have traditional rules that do govern natural resource use (35.7%). It is possible that the varying answers can be explained by people's interpretation and that people may have understood the question differently. The local people had very different levels of understanding and especially young women, with little education, had difficulties in understanding the questions. What are called "traditional rules" in the questionnaire may to some people be internalized norms that are unconscious to them, as a "way of life" (Vedeld, Moulton & Krogh, 1997). For example as a traditional fisherman, you do not fish with tight knitted fishnet, because you know that it is not sustainable to extract fry and fingerling. Some rules may contradict the law and then they may not dare to explain them to outsiders, for example the traditional way of honey collection which is no longer allowed, as they need to cut down the tree that holds the beehives to get the honey.

The varying responses and low emphasis on traditional and cultural rules regarding conservation may also be explained by the influx of in-migrants in Namwala. Different clans have originally different cultures and traditional rules and since this study included four different tribes, the answers may vary. The merging of different tribes in Namwala may lower the importance the indigenous traditions and culture. In the same way Ila's livelihoods has changed from cattle herders to having diverse crops and livestock, their culture and traditions may also have changed due to the increase of people from different tribes. This is an example of how the socialization process goes two ways, "the social individual influence other people and the individual is influenced by the social surroundings" (Vedeld, Moulton & Krogh, 1997:16). In Namwala this social change may have affect peoples' attachment to land, as in-migrants come from other areas and does not have traditionally or historical

connection to the land. Without cultural or traditional norms connected to the nature in the GMA, this may decrease peoples' emotional ties to the land and thereby affect their desire to conserve the area. If for example soil conservation is neglected, the land will become degraded and farmers will have to open new land to cultivate, thereby reducing the habitat available for wildlife.

In-migration by people from other tribes with little knowledge about the local institutions, values, norms and knowledge in the area, might also have contributed to disunity of the spiritual beliefs. Qualitative data indicates that sacred sites are no longer that important for local people. They used to have a mountain where they prayed for rain at the end of the dry season, but this is not practiced anymore. People no longer worship their ancestors to the same extent. "We are Christians", they stated, and therefore they rather go to the church to pray for rain than to the sacred sites. No one mentioned any sacred sites or spiritual values that were still important for them. Thus, sacred sites are no longer as important due to change of religion and in-migration in Namwala.

While most locals reported that the traditional rules are no longer applicable, everyone in the local community stated that *cultural values* are important in regards to traditional use of natural resources. Some traditional rules have become norms that still exist to some degree; for example rules concerning bush fires with this only allowed at specific times in the year, traditional fishing rules that control the methods and fish ban in the breeding season and traditional farming methods to avoid soil erosions. Local people were more eager than management and staff to answer questions about their cultural values, which might imply that it was easier for them to understand the question. They explained in detail how important natural resources are for their traditional way of living. They need grass for making roofs on traditional houses, poles for making houses and they rely on traditional rules when controlling fishing. Traditional farming is used to maintain the soil and collection of resources such as honey and fruit are important to sustain their livelihood.

5.5.2.1 *Summing up stakeholder perceptions of informal institutions in the local community*

The management and staff in Namwala GMA do not seem to know the informal institutions in the local communities in Kaingu. Management and staff believe that traditional rules and spiritual values, in regards to natural resources in the

GMA, are more important for local people than what the local people reported themselves. On the other hand, they view cultural values as less important than what the local people do and they do not seem to acknowledge the importance of traditional usage of natural resources for local people. The qualitative data also indicate a lack of knowledge regarding different types of traditions or sacred places. The different perceptions among management/staff and local people is interesting, because it exemplifies how little the governing actors know about the people they govern. The relationship will therefore be closer explored, using cultural importance as an example.

5.5.3 Comparing management/staff and local people's understanding of cultural importance in regards to resource use in Namwala

The difference between the two groups on the cultural importance is significant according to a 2-paired Mann-Whitney test (see section 3.6.1 for description of the test). However, if GMA staff and management is divided into sub groups; community scouts (CS), wildlife police officer (WPO) and GMA management, the conclusion is not so clear anymore (Table 12). There is no longer a difference between GMA management and locals, but still a difference between CS, WPO and locals. This is interesting since community scouts are local people hired by the CRB and thereby there should not be a difference between these locals and community scouts. However, community scouts have become paid workers and are thus not as dependent on the traditional way of living as the rest of the locals. For them, cultural values might not be very important anymore. It can also be because CS have been trained by ZAWA and maybe they feel that some of the cultural values contradicts with ZAWA's ideology. They rather focus on ZAWA's practices, than on their own traditional ways.

The management, on the other hand, are more urban and educated, and thus constitutes a very different group from both local people and community scouts, but they do not have any significant different views on the importance of cultural values. This might be explained by the management wish to give "political correct" answers. Most of them are educated and they have probably learned that cultural values are important for local people. This does not imply that they actually know these cultural values more intimately or value them as important when implementing the Wildlife policies in practice.

The management mentioned few cultural values in the qualitative part of the questionnaire, while the locals reported several cultural activities that they view as important. The activities mentioned by locals are all activities that utilize natural resources based on local indigenous and historical knowledge. It is therefore apparent that management does not know the cultural values that local communities attach to their traditional ways of utilizing natural resources.

Table 12: Comparing management/staff and local people’s understanding of cultural importance. Using Mann-Whitney test.

Groups	N	Rank	Rank	U	Sig.(2-tailed)
		Average	Sum		
Locals	54	60.67	3276	909	.001*
Management & staff	50	43.68	2184		
Locals	54	40.39	2181	330	.007*
Wildlife police	19	27.37	520		
Locals	54	34.63	1870	155	.011
Community scouts	10	21.00	210		

*Source: own fieldwork (2016), * statistically significant at 5 percent significance level*

5.6 Stakeholders attitudes, values and norms towards the attributes of the GMA

Attitudes, values and norms play an important role in acceptance of environmental policies and management actions by the public (Winter et al., 2005 in Karanth et. al., 2008:2358). To understand why people make decisions and behave in certain ways, this study has used attitudes and opinion surveys with quantitative and qualitative questions to get a broader understanding of peoples’ perceptions of the GMA. By understanding and identifying factors that influence attitudes towards protected areas, it can contribute to the wider understanding of state-led community outreach programs. It can also guide protected area managers in developing strategies that may fit better to the local communities living in the protected area.

Attempting to identify factors that influence stakeholders attitudes, values and norms towards the GMA, this section will start by explaining attitudes towards the GMA in a historical perspective, as the establishment of protected areas is typically

known to produce negative attitudes among local people. Thereafter we will look at how different stakeholders value the protected area and how they perceive the use-values in the GMA. By understanding how they view these key attributes it is possible to understand how the local people and management/staff think and why they behave in certain ways. If the attitudes, values and norms towards the GMA and the attached use-values differ, it can give some indication to why the policy approach is not successful.

5.6.1 History of the GMA related to local peoples present attitudes, values and norms

Conservation strategies should be viewed in a historical and social context, since this may influence local communities present attitudes, values and norms. The centralization of wildlife conservation management may have caused negative attitudes, values and norms towards state-led wildlife conservation (Mbaiwa, 2007). The centralization included establishment of protected areas and eviction and deprivation of accessibility of people living in these areas. The general assumption is therefore that this has caused negative attitudes towards protected areas and the people who manage it.

To understand if the history of the establishment process of Namwala GMA is affecting local peoples current attitudes in Kaingu, this study measures and assessed local peoples knowledge about the GMA history and if historical events has caused bitterness among the locals.

The establishment of Namwala GMA does not, however seem to have produced very negative attitudes among the local people in this research. Some (64.2%) argued that local people indeed were included and were able to influence the establishment process. This is contradictory to the secondary data on which this research is built. In the 70s, the “fortress approach” to conservation were still in use and this approach did not include local communities in decision making, but rather evicted them from their land and deprived them of rights to natural resources they depended on for their livelihood (Vedeld, 2002). 28.6% answered that they do not know if local people were involved or not. This shows that new generation have little knowledge about how the GMA was established and that the establishment process does not influence their current attitudes to a large degree.

They neither seem to know much about the practical issues that arose when people living in the now protected area had to move. Asking the people who reported that they had to move (see Table 13) about how this affected them, 34% answered that they did not know. Others reported that they lost access to fertile land, to their already grown crops and that it was difficult to find new land and develop it from scratch. They also emphasized that they lost access to important natural resources. Although only half of the people in the sample reported that they have less land now than before the GMA was established. The ones who stated that they have less land now explained that their downsized land limits their agriculture and this further decrease their income. Due to population growth, land has become an even scarcer source, they explained. They also lost ownership over natural resources, including wild meat, which increased poaching.

Table 13: Local peoples opinions regarding the establishment process of the GMA, Kaingu, Namwala, Zambia, 2016

	No	Yes	Do not know
People were forced to move	3.6%	64.3%	32.1%
Bitterness towards the government	30.3%	55.4%	14.3%

Source: own fieldwork (2016), N=56

Although local people do not seem to know much about the establishment process in the 1970s, still 55.4% agree that there is bitterness towards the government for taking the governance responsibility away from the local communities (see table 13). While 14.3% reported that they “do not know”, which can imply that they either did not understand the question or that they were afraid to answer what they truly mean, as the translator and escort works for ZAWA, which represent the government. Comments from the participants include the following statements;

“ Some are bitter”, “they are bitter because they were evicted”, “poachers are bitter” and “some are bitter because they lack knowledge”.

The lack of knowledge concerning the establishment process and the relative low bitterness level towards the deprivation of natural resources indicates that the history of the GMA has not caused extreme negative attitudes among local people

towards the management/staff and GMA. Since only approximately half of the people interviewed reported that they had to move when the GMA was established it might indicate that many people already lived in the settlement areas in the GMA and the establishment of the different zones did not affect them so seriously, or that they are too young to remember. Some people might be in-migrants who moved to the GMA after it had become a protected area and therefore they do not know about the establishment process. Statistical analysis did not show any interesting difference between how old people view the history of the GMA compared with younger people, or if the indigenous tribe, the Ila, has significantly different views on the history of the GMA compared to other tribes. Few interesting findings in these comparisons can be explained by the small sample in this research and a larger sample could maybe produce more interesting differences.

5.6.2 Valuation of the protected area

Values influence what people view as important to protect and thereby influence their choices regarding conservation of natural resources. Protected areas are valued by society for many different reasons. Knowing what different stakeholders value in the GMA, will therefore make it easier to achieve a successful policy that are fit to govern the resource and the community. Measurements of such values are therefore needed.

By using Worboys *et al.*, (2005) framework for identifying values based on Harmon and Putney (2003), we identified how important different values in the GMA are for different stakeholder. This research focus on the instrumental values, which might be more important for local people than what has been acknowledged in resource governance. Instrumental values are considered as valuable due to the possible benefits for humans. The values were formed as statements and measured by using two different types of Likert scale. The results are presented in Table 14.

Table 14: Part 1, Management/staff and local people's valuation of different attributes of the resources in Namwala GMA, Zambia, 2016.

	Do not know	Strongly disagree	Disagree	Agree	Strongly agree
<i>I see nature as part of my identity (Bequest values)</i>					
Locals	0%	0%	0%	19,6%	80,4%
Mgmt./staff	0%	3,8%	3,8%	34,6%	57,8%

The GMA provides a opportunity to learn by interacting with nature and thus people learn through practical experience (educational values)

Locals	1,8%	0%	0%	32,1%	66,1%
Mgmt./staff	0%	0%	1,9%	32,1%	66,0%

Source: own fieldwork (2016), Local people: N=56 Management and staff: N=53

Table 15: Part 2, Management/staff and local people's valuation of different attributes of the resources in Namwala GMA, Zambia, 2016.

	Do not know	Not important	Slightly important	Important	Very important
<i>The GMA is important for activities such as; walking/hiking or wildlife viewing/bird watching (recreational values)</i>					
Locals	0,0%	0,0%	1,8%	35,7%	62,5%
Mgmt./staff	0,0%	0,0%	5,6%	17,%	77,4%

It is important to protect the natural resources in the GMA, so the resources will exist for future generations (existence values)

Locals	0%	0%	0%	8,9%	91,1%
Mgmt./staff	0%	0%	0%	3,8%	96,2%

The GMA is important for people seeking a wilderness experience which enhances a feeling of well-being (therapeutic values)

Locals	1,8%	0%	0%	41,1%	57,1%
Mgmt./staff	0,00%	0%	3,8%	18,9%	77,4%

Some species in the GMA are perceived as very important to protect and this motivate people to improve conservation (perception based values)

Locals	3,6%	0%	0%	26,8%	69,6%
Mgmt./staff	0%	1,9%	0%	17%	81%

Cooperative management of the GMA promotes regional peace and stability between the urban population and the local community (peace values)

Locals	1,8%	0%	0%	58,9%	39,3%
Mang./staff	3,8%	1,9%	5,7%	39,6%	49,1%

Source: own fieldwork (2016), Local people: N=56 Management and staff: N=53

5.6.2.1 *Locals valuation of the relational/intangible values attached to the GMA*

The results do not indicate that there are any large differences between what individuals in the local communities value in the GMA. Almost all participants view the different values as important or very important or they agree or strongly agree on their importance. The value with the highest score is *existence* and 91.1% answer that it is very important to protect the natural resources for future generations. While *cooperative management* has the lowest score and only 39.3% thinks cooperative management of the GMA promotes regional peace and stability between the urban population and the local community. Even though this has the lowest score, it would be likely to think the score should be even lower due to the reported conflicts such as poaching, encroachment and other illegal activities done by locals and punished by management/staff for such activities.

The high level of agreement may be explained by some people's tendency to give desirable answers or it might actually show that local people do view the GMA as important for tourists, children, peace relations and themselves. It seems to be a general opinion that the GMA is important to protect so the natural resources will exist for future generations due to its high response rate (91.10%). Similar values can make it easier to facilitate more sustainable use in the future.

5.6.2.2 *Management and staff valuation of the relational/intangible values attached to the GMA*

What management and staff value in the GMA highly affect what they choose to protect and how they choose to do it. It is therefore important to identify what kind

of values they view as important in order to understand what they emphasize when they enforce the law (Lockwood and Winter, 2004). The valuation form given to the locals, was also given to the management and staff in order to compare the results from the two groups.

The results show a similar pattern as for the locals. All values in the questionnaire are viewed as very important/important and people strongly agree/agree with the statements. There is variation between important and very important, and between agree, strongly agree, but the differences does not indicate any large differences and it is difficult to interpret what that difference means. The “existence value” has also received the highest score among management meaning that both management and locals agree on what they view as the most important value in the GMA, given the different options in the survey.

5.6.2.3 *Analysing the direct use values attached to the GMA*

By exploring the different direct use-values attached to the GMA among local people, we get an impression of what they perceive as their most important use-values in the GMA and thereby what kind of natural resources that are important for them and their livelihoods. To examine if the management and staff acknowledge the importance of these kind of natural resources for local people living the GMA, it is also relevant to look at what they view as important use-values for local people (See Table 16).

Table 16: Reported use-values in the GMA as perceived by actors in Namwala, Kafue, Zambia 2016.

	Locals	Management/staff
Farming land	96,4%	20.8%
Grazing land	73,2%	43.4%
Trees	78,6%	64.2%
Grass	58,9%	3.8%
Fish	10,7%	3.8%
Honey collection	8,9%	1.9%
Other	7,1%	9.4%

Source: own fieldwork (2016), Locals: N=56, Management/staff N=53

Total percentage >100% because respondents gave multiple answers.

Table 17: The importance of use-values perceived by actors in Namwala, Kafue, Zambia 2016.

How important are use-values extracted from natural resources in the GMA for local people?

	Not important	Slightly important	Important	Very important	Do not know
Management and staff	11.3%	3.8%	28.3%	54.7%	1.9%
Local people	0%	0%	14.3%	85.7%	0%

Source: own fieldwork (2016), Locals N=56, Management/staff: N=54

5.6.2.4 Stakeholders perception on use-values for local people

From the result, it is clear that farming and grazing are important for locals subsistence agriculture, as 96.4% of all local people interviewed mentioned farm land as one of their key use-values in the GMA. Trees and grass were described as very important for house building. When building traditional houses, they use poles from trees to make the foundation, while grass is used to make the roof. This way of building houses have deep roots in their culture and these houses are commonly seen in the villages. Use-values retrieved from the GMA are essential for local people's livelihoods, as 85.7% of the locals view the use-values in the GMA as very important for them, while the rest consider it as important.

According to the quantitative results they claim to have free access to these natural resources, which was reported by 91.1% of the people. This is not supported by the qualitative data. People still have to borrow land from the headman, either for free or with a fee. The headman and the chief decide, together with representatives from the government, who can use and cultivate land in different areas, which means that locals do not have free access.

Surprisingly, everyone reported to have sufficient natural resources to sustain their livelihood. 46.4% reported it is sufficient to a *certain degree* and 53.6% answered it is sufficient to a *large degree*. Again, this is not supported by the qualitative data. Many farmers experienced that they still need to work outside their home to support their family, as farming incomes in cash and products were not

sufficient. The contradictory responses from qualitative and quantitative questions in the questionnaire might be explained by the desire to answer what they thought I wanted to hear and the desire to present themselves in a good light, rather than admitting that resources are limited and that many people in the community struggle to feed their family.

Management and staff mentioned the same use-values as the local communities, but Table 16 shows that less people answer multiple values, like the local people did and therefore the percentage of incidents are lower. This is probably because management and staff have less knowledge regarding local communities and their livelihood. Many seemed satisfied when they came up with one use-value, others did not come up with any. 73.6% of the management and staff interviewed think that local people have access to sufficient natural resources to sustain their livelihood and only half of the people interviewed viewed natural resources in the GMA as important use-values for local people. While over 80% of local people view use-values as very important. This illustrates that management and staff may have poor understanding of how important use-values are for local people. Which further implies that management and staff focus more on the relational values connected to the GMA, which they reported as very important, then the extractive values, which are important for local people (Worboys et al., 2005).

Local peoples' perceptions of having free access to natural resources does not seem to be correct, since everyone seemed to be aware of rules limiting their access to for example wildlife and trees. It is likely that the local people who were interviewed misunderstood the question and when they stated that they have free access, they might be referring to natural resources in the GMA which are not protected by law or that "free access" from them means that they do not have to pay the government for natural resources.

5.7 Some key management challenges facing Namwala GMA

This section presents different examples of key challenges in the protected area in order to give a better understanding of how the resource regime is failing to achieve development for local people and conservation of wildlife in the GMA.

The main objective is to analyse how the formal rules are delivering in meeting the requests from CBNRM and view how ZAWA are performing to meet these principles. Emphasis is made on the principles in the law that were reported as

problematic during informal conversations with GMA staff and local people; threats towards the GMA, revenue sharing, cost and protection from wildlife and poaching. If the management and staff are failing to address these issues properly, this may create negative attitudes among the local people and this will therefore be addressed.

5.7.1 Stakeholders view on threats towards the GMA

Threats towards the GMA guide management considerations and action and are thereby an important part of their governance strategy, as part of what they consider when they plan and implement strategies for protecting the GMA. Several threats towards the GMA were reported as very problematic by management and staff. Their largest management challenges is to limit human threats towards the GMA and at the same time prohibit threats towards the local people. The ability of staff and management to handle such threats, without creating negative attitudes in the local communities, is very important to succeed in policy implementation. Local perceptions of threats are included to see if the local people in the GMA perceive the same issues as threatening.

Table 18: Threats to the GMA reported by different actors working in Namwala GMA, Kafue, Zambia, 2016.

threats	Management/Staff	Locals
Poaching	84,6%	88.5%
Encroachment	46,2%	23.1%
Deforestation	38,5%	88.5%
Human habitation & population growth	34,6%	5.8%
Illegal fishing methods	11,5%	17.3%
Others	38,5%	3.8%

Source: own fieldwork (2016), Locals N=52, Management/staff N=52

Total percentage >100% as respondents were allowed multiple responses.

When the management and staff were asked what they view as important, 84% of them consider poaching as the most serious threat to the GMA followed by encroachment, deforestation and human habitation/population growth. Illegal fishing methods is not seen as a big problem and only a few of the interviewed staff and management regard this as a threat (see Table 18). Secondary data also reports similar

issues as threatening the GMA. Mwima (2007) state that the most serious problems are deforestation, human encroachment, poaching, fire, subsistence agriculture and illegal fishing.

Local people reported the same threats towards the GMA as the management and staff, but with poaching and deforestation being reported highest. Surprisingly, few people in the local communities mentioned any problems regarding threats towards themselves such as wildlife depredation and crop raiding. These issues will be analyzed further.

5.7.1.1 Key threats towards the people in the GMA

Beside these generally perceived threats towards the GMA listed above, wildlife threat towards local people living in the GMA is also an important component when governing GMA's, and this is reported a key reason for human-wildlife conflicts. It is therefore important to assess how the different stakeholders view the wildlife threats to locals.

Table 19: Key threats towards local people according the different stakeholders in Namwala GMA, Zambia, 2016.

	Strongly disagree	Disagree	Agree	Strongly agree	Do not know
I. Is wildlife depredation a large problem for local people in Kaingu?					
Management and staff	4%	21%	36%	34%	5%
Local community	0%	44,6%	39.3%	14,3%	1.8%
II. Is crop raiding a large problem for local people in Kaingu?					
Management and staff	5%	19%	36%	36%	4%
Local community	0%	53.6%	32.1%	12.5%	1.8%

Source: own fieldwork (2016), Locals N=56, Management/staff N=54

Following Table 19, almost 70% of the management and staff agree/strongly agree that wildlife depredation is a large problem for locals, while 72% agree/strongly agree that crop raiding is a large problem for locals. This indicates that the majority of the management and staff do believe that the two threats to local people from the GMA measured in this research constitute major problems for local people and their livelihoods.

To the contrary, locals do not seem to view such issues as affecting them or their own livelihoods to a large degree. Wildlife depredation and crop raiding are generally not considered large problems, according to the qualitative data from the interviews. The quantitative data support this argument, as only 14.3% strongly agree/agree that wildlife depredation is a large problem and 44.6% disagree that it is a problem at all. Similar responses are measured regarding crop raiding; only 12.5% strongly agree that crop raiding is a major problem and 53.6% disagree it is a large problem for local people. Additionally, qualitative information from the CRB members explains that there are only in a few areas in Kaingu, where crop raiding and wildlife depredation actually takes place. And even in these areas it rarely occurs. According to an informant in the CRB board in Kaingu, only 3 complaints were received the previous year (2015) regarding threats from wildlife.

5.7.1.2 Summing up stakeholders views on threats

According to the management and staff, they meet several management challenges due to threats towards the resource. The natural resources exist within the same area where the local people live and it is therefore difficult to protect the valuable resources from human overuse, causing several threats towards the GMA; poaching, encroachment and deforestation. However, protecting the natural resources in the GMA is not the only problem for the management and staff. Wildlife also threatens local peoples livelihood, through wildlife depredation and crop damage. This can further provoke the local people and cause negative attitudes towards wildlife. The key management issues caused by the nature of the resource is protecting the natural resources in the GMA from people and protecting local people from wildlife.

Local people on the other hand, do not consider wildlife depredation and crop raiding as generally causing large problems, according to the qualitative data. The quantitative data shows that there are only some people who view wildlife as

threatening. Thus, it is interesting to test if there is a *significant* difference between local people and management/staff regarding key threats is significant.

5.7.1.3 Comparison of different views on key threats towards the GMA

As we have seen, there are key challenges relating to the GMA management, and to the costs accrued by living close to the conservation area. However, there are clear differences between how these challenges are perceived by different groups.

Table 20: Stakeholder’s views on wildlife depredation and crop raiding in Kaingu, Namwala, Zambia, 2016.

	Groups	N	Rank Average	Rank Sum	U	Sig.(2-tailed)
Wildlife						
depredation	Locals	56	49,52	2773	1177	.049*
	Management & staff	53	60,79	3222		
Crop						
raiding	Locals	56	47,19	2642,5	1046,5	.005*
	Management & staff	53	63,25	3352,5		

*SPSS results, *statistically significant at 5 percent significance level*

From Table 20 we see that there are significant differences between management/staff and the locals concerning costs of wildlife and that management and staff view it as a larger problem than locals (see section 3.6.1 for the description of the test). This can be explained by the varying degree of wildlife problems in different areas. The management and staff asked might not know how the situation is in Namwala and specifically; Kaingu. Possibly, they answered from a general point of view, where wildlife problems is a large issue and not admitting that they do not know the situation in Kaingu well enough.

It is also possible that the people in the management and GMA staff misunderstood the question. Wildlife depredation and crop raiding are in general well-known problems in Zambian GMA’s and therefore they can have reported these

issues as problematic, as it is a problem in Zambia and they wanted to emphasize that. Management and staff is also a varied group, coming from different areas in Zambia and some may come from areas where it is a large problem and they may even have experienced such problems themselves. So their answers may represent a more general trend in Zambia's GMA's and not the exact situation for the Chiefdom Kaingu.

The locals however all seemed to understand the question. Some said that occasionally they can be bothered by monkeys or bush pig that disrupt their crop, but that it is not a big problem. One person reported that he sometimes has problems with crocodiles in the end of the dry season, when he has to take his livestock to a waterhole far away from his farm to provide them with water. The information was supported by an interviewee in the CRB board, who claimed that reports on wildlife depredation almost never are received.

The results indicate that wildlife depredation and crop raiding is generally a large problem for other communities in Zambia, but not in Kaingu. Therefore, it does not seem to create negative attitudes, values and norms among local people towards the GMA.

5.7.2 Revenue sharing through CBNRM

The Community Based Natural Resource Management programme in Zambia commands the Zambia Wildlife Authority (ZAWA) to share the revenues from trophy hunting with communities living in the respective GMAs. Revenue from hunting licenses and animal sales should be shared equally with the different communities living in the GMA in Zambia (GRZ, 1998). Ostrom (1999) emphasizes the importance of fair revenue sharing in one of her key principles for successful governance of common pool resources; the users must receive sufficient benefits for participating in collective action to compensate for their effort. This section examines if the revenue sharing in Namwala is delivering and meeting the demands of the policy. If it does not deliver, this might create negative attitudes among local people towards the policy and the management/staff who are implementing it.

The revenue sharing is according to Mkanda, et. al. 2014 not distributed equally between ZAWA and the local communities as ZAWA receive 80% of the concession fees and only 15% goes to the communities and 5% to the Chiefs.

Table 21: Revenue sharing of the animal sales and licences between different actors in Namwala GMA, Zambia, 2014.

	Sales and licences	Concession fees
Local community (CRB)	45%	15%
Chiefs (CRB patrons)	5%	5%
ZAWA	50%	80%

Source: (Mkanda, et. al. 2014)

The revenue distribution thus highly favours ZAWA, as concession fees can account for as much as 60% of the total income from trophy hunting, depending on revenue from animals sold and the local community only receives 15% of that revenue stream, see Table 21. When concession fees represent such a large amount of the revenues, it is peculiar that local communities are only entitled to 15% of it.

5.7.2.1 *Implications affecting the revenue sharing mechanism*

The hunting ban that was introduced in 2013 due to Namwalas understocked wildlife base. This has decreased the possible revenues from the GMA, since hunting is one of the main income sources. Sylvia Masebo, the Zambia's Tourism Minister at the time stated that "The cats are gone, and no amount of convincing from any sector or group will convince me otherwise," (The Telegraph, 2014). ZAWA opposed the ban, arguing that it would be destructive for the tourist industry. Shortly after the ban was imposed, ZAWA's directors and senior officials were fired, accused of corruption when awarding safari-hunting concessions (The Telegraph, 2014).

The hunting ban may have decreased the revenues that ZAWA received from the GMA, but Kaingu CRB has not received any revenues from GMA for three years according to the accountant in the CRB board. Thus, the whole system of CRBs are falling apart. Without funds to pay community scouts, the CRB members or to develop community common goods such as schools, health stations and boreholes, there is no longer any benefits accruing to the local community. The promise from the government is not upheld and the trust is severely hampered.

The revenue sharing consists as a large problem in accomplishing a success CBNRM approach. A key informant in ZAWA argue that the "local funding has been used to cover costs for the transformation process, as ZAWA claim they are deficient in funds". Whether ZAWA is actually lacking funds is a disputed topic and many

people in the top management are accused of corruption, keeping the revenues for themselves. There might be different reasons for why the CRB in Kaingu has not received funds over the last three years, but the consequences are the same. Without funds, the CRB cannot proceed with any community projects, capacity building in the communities or paying the Village Scouts. Thereby, the communities do not get any benefits and it is clear that this influence their motivation to participate in resource governance.

5.7.2.2 Local communities reported views on benefit sharing in Namwala

Few in the communities in Kaingu believe that the benefits produced by the protected area will ever reach them. 39.3% either strongly agree or agree that the revenues will not reach them, while 32.1% do not know. Neither do they have knowledge of what the revenues are used on, 41.1% do not know, 44.6% reported nothing and only 14.3% reported that they are used for different community projects. Some mentioned building of the Chiefs house as an example of community projects, but the revenues received by the CRB are not supposed to be used by the Chief, as he receive revenues from the protected area that are earmarked for the Chief.

Their mistrust in the benefit-sharing scheme is further supported by the question on whether the CRB received revenues from wildlife would benefit *everyone* in the community. Most people disagree that they would benefit if the CRB received funds, see Table 22. All this shows that there is a lack of trust in the CRB, which is a serious problem, since the CRB is supposed to represent the community and their interests.

Table 22: Local communities views on benefit sharing in Kaingu, Namwala, Zambia, 2016.

	Strongly disagree	Disagree	Agree	Strongly agree	Do not know
Benefits to community	5.4%	23.2%	30.4%	8.9%	32.1%
Benefits to all	19.6%	44.6%	16.1%	5.4%	14.3%

Source: own fieldwork (2016), N=56

An important way for locals to participate in resource governance and receive benefits is through employment, for example in the tourist industry. Unfortunately, the opportunities for such jobs are low in Namwala. The GMA is not facilitated for touristic purpose, for example roads are not properly developed making game drives difficult. Lodge owners said that they choose to build their lodge in the GMA, because it is cheaper to build there, but they take their tourists for safari in the national park. No one from the local communities in our sample worked with enterprises related to the protected area. Thus, there are few employment options for local people in Namwala. Since the CRB does not receive revenues, the local community does not experience any benefits from living in the GMA. This hampers their relationship to the governing actors and their belief that conservation will produce benefits. The lack of managers' ability to share benefits, thus influence the local communities ability to trust them and the promises they make.

5.7.3 *Cost and protection of property against wildlife*

Human-wildlife conflicts often occur when people feel threatened by wild animals without the power to control the wild animals themselves. Interestingly, according to the Zambian Wildlife Act, a person is allowed to shoot a wild animal if that animal is threatening their cultivated land, crops or livestock whether that livestock is enclosed or not (The Wildlife Act, 2015). However, when collecting data on management/staff and local peoples feelings about locals rights to defend themselves, few people responded that locals should have such rights, as it would be possible to abuse these rights and kill more animals than necessary, see Table 23. The example illustrates stakeholders' attitudes towards the local people.

Table 23: Stakeholders view on locals right to control wildlife, Namwala, Zambia, 2016

	Strongly disagree	Disagree	Agree	Strongly agree	Do not know
Locals	21.4%	51.8%	16.1%	7.1%	3.6%
Management and staff	43.4%	34%	15.1%	7.5%	0%

Source: own fieldwork (2016), Locals: N=56, Management/staff: N=53

Among locals, more than 70% strongly disagree/disagree that they should have the right to shoot animals that damage their crop or kill their livestock. They said that locals do not have the knowledge or weapons to control wildlife and many emphasized that locals do not have the ability to handle that power and they even stated that they would shoot everything. WPO and CS should rather be given the responsibility, they responded.

Management and staff have similar feelings toward locals' rights to protect themselves, 43.4% strongly disagree and 34% disagree (see Table 23) that they should have the right to protect their livelihood. Most of the management and staff said that local people who have these problems should report to ZAWA, as they do not have the knowledge or equipment to shoot wild animals. They also emphasized that local people would take advantage if they had this right and "shoot everything" (quotation from several people).

This is an example of the lack of knowledge among both local people and management/staff regarding the formal rules. Local people do not know their rights and even worse, management and staff do not know the rules stated in the Act which they are supposed to implement. Also importantly, the management and staff do not trust the community and the community does not trust themselves as a group to take on the responsibility to protect themselves.

5.7.4 Stakeholders views on poaching and the punishment mechanisms in place

Poaching was used as an example to see if stakeholders in Namwala thought it would be possible to establish a system for local level conflict resolution, as Ostrom, (1999), systems with low-cost conflict resolution is considered more effective and more likely to survive. A local conflict resolution system would facilitate collective action. This example also reflect the attitudes connected to local people's capacity to govern the natural resources.

5.7.4.1 Park staff's view on poaching and punishment mechanisms

Poaching is an issue regulated by the Wildlife Act and it is a good practical example of how the stakeholders relate to the formal policy and how they view the punishment system in place. Their views on the punishment system will likely influence their attitudes, values and norms towards the policy.

Almost everyone (98.1%) agree that poaching is a large problem in the GMA, but the perception of poaching and punishment mechanisms vary between different people in management and staff.

Most people view poachers as poor and desperate without other income alternatives. They explained that poaching becomes local people's way of rescuing their family from poverty. On the other side, some people argue that locals are greedy and they want direct benefits from wildlife for themselves. While others explain that local people do not have knowledge of how vulnerable wildlife is and they do not understand the consequences of their action. All these reasons may serve as explanations for why different people poach. Locals are a dissimilar group and there may be different reasons for why people utilize illegal mechanisms to earn money.

Management and staff's views on the appropriate punishing level for poaching also varies from low punishment with focus on education so people can learn why wildlife conservation is important, to people who believe in the need for stricter punishment, arguing that this will warn off poachers. The most extreme said that poachers should be killed and showed no reflections towards the reasons why someone might feel that poaching is their only alternative.

Even though management and staff have different perceptions of poaching and understand punishment mechanisms differently, they all agree that poachers should be punished according to formal rules, the law. They do not see local punishment mechanisms as an alternative, because they argue that this will lead to corruption due to communities' social structure. People are influenced by their personal relations to people in the community and will not be able to treat people equally.

There are variation within management and staff views on poaching and why people poach, but they all agree that a local punishment system is impossible as corruption will be inevitable.

5.7.4.2 *Local peoples view on poaching and punishment mechanisms*

Local people also agree that poaching is a large problem (94.6% agree), but they are to a larger degree convinced that people poach due to poverty and lack of income alternatives, than management and staff. They also emphasized that some local people lack knowledge and ownership to wildlife and poach because they do not know the serious consequences. These people may be migrants who do not have the same relationship and inherited knowledge to wildlife.

There are varied responses as to whether the punishment levels for poaching is fair. Most people (67.9%) strongly agree/agree that the punishment is indeed fair, since poachers should be punished. Others disagree (28.6%) since, according to some, poachers are killed. It is difficult to determine whether this is true or not. People working for ZAWA obviously denied the fact that they have killed people who poach. But some people explained dramatic situations that sometimes occur when ZAWA officers catch poachers and they open fire. They explained however, that it is poachers who fire first and that ZAWA officers are only protecting themselves. Local people were willing to talk openly about the killings and wanted to be heard, while management and staff were not interested in talking about it. They said that if it happens, it is the locals' fault, since they fire their guns first. Since local people report the shootings and want to be heard while ZAWA rejects it and do not want to talk about it, it appears that locals more often are the victims.

I clearly observed negative attitudes from local people towards ZAWA due to these perceived or true killings. From an outsider point of view it is difficult to distinguish whether these stories, on which the negative attitudes are build, are true or not, but it is apparent that the local people did not seem to trust the punishment system or management and staff who implement it.

The local people did not agree that the official rules and punishment mechanisms were fair, nor did they believe in the local community's own ability to punish poachers themselves, as 69.6% disagreed they could be responsible for punishment mechanisms. They gave the same reasons as the park management and staff, which is that there are biases in the community that would lead to corruption.

5.7.4.3 Summing up stakeholders views on poaching and punishment mechanisms

The stakeholders in Nalmwala seem sceptical to the establishment of local level punishment system, which according to Ostrom (1999) are more efficient and effective way of solving issues over natural resources. They claimed that the local community is biased and that this would lead to corruption. This was however how conflict resolution was practised before the government overtook the management responsibility in Namwala. It might function if people in the society that already holds power, would undergo training and learn how to punish people according to a set of rules developed by local and modern punishment mechanisms. However, the system

would then rely on individuals in the community who already hold power, like the Chief and Headmen and their personnel, which could possibly cause more corruption.

It is a dilemma whether the cultural power assigned to some people in the society should be used as a means by the government to mainstream CBNRM and lead action or if their positions in the society are in the way of developing a fair and equal conservation structure that benefits all. This is an issue discussed by Cleaver (1999), who argues that culture can both limit and foster participation. During fieldwork people accused some Headmen of supporting poaching. We could not confirm this, but it is important to consider that powerful people in a community are not automatically conservationist with preferred values.

Due to these cultural limitations, it might be considered that improving the formal conflict resolution system might be a better solution. However, improvements should focus on management and staff's knowledge about the community, their ability to work together with the community and build their trust.

Poaching remain a large problem acknowledged by all stakeholders, but the punishment system of poachers are producing negative attitudes towards the GMA staff, as some local people argue that they kill poachers. Attitudes towards the community's ability to succeed in low-level conflict resolution are low, even though this used to be the practise before the government took over the ownership of wildlife. The punishment mechanisms need to be improved, but further research is needed to understand how such improvements should be made and whether the formal or informal system is the most effective.

5.7.5 Summing up key challenges in the GMA

The formal rules are not able to protect the resource from human exploitation and the resource is currently threatened to a large degree by poaching, human encroachment and deforestation. The punishment mechanisms, which should prohibit illegal activity, is not managed properly and is currently producing negative attitudes among local people as they argue that GMA staff actually kills poachers (own fieldwork).

The formal rules, which shall enhance CBNRM, do not seem to be implemented successfully. Managers and staff have negative attitudes towards local communities as capable conservationists and this influence their ability to share authority over wildlife with local communities, which is a prerequisite in CBNRM.

Managers and staff also show little knowledge towards the formal rules, not knowing that local people are allowed to protect themselves from wildlife. They also lack the ability to share the promised benefits with local people, which hamper local participation and trust in the regime. Thus, the collaboration between local people and management remains a key challenge in governance of Namwala. The examples of key challenges display that the conflicts in this GMA is not between human beings and wildlife, but rather a social conflict between managers/staff and local people.

5.8 The outcomes

The analysis of the resource regime has revealed how problems appear as a consequence of the interaction of choices made by different actors. The regime has not managed to motivate coordinated action in accordance with what is demanded given the resource characteristics, the formal and informal rules and the number of users (Vatn, 2005).

The resources in Namwala is difficult to managed, as there are no boundaries to the valuable natural resources and too many users with direct access. This causes a coordination problem which management and staff are currently not managing well. The GMA are facing issues such as human encroachment causing loss of vegetation due to charcoal production and agriculture, which further causes habitat loss for wildlife. At the same time local people are poor and many are suffering from malnutrition. Without alternative income sources, people poach. The GMA are meant as an area where humans and wild animals can coexist; providing for economic development for local people and wildlife conservation, but remains an area which is not performing well for neither the local people or the wildlife.

The different zones which are established to separate the different areas according to its purpose and make it possible to develop the area while at the same time conserve wildlife is not known to the local people. The different zones is a premise for the success of GMAs and since the boundaries are not upheld the intention behind the idea of GMA's is broken.

The interaction process is complicated, as the different stakeholders have some negative attitudes towards each other due to their activities in the GMA. Management and staff sanction towards local people's illegal activity are causing negative attitudes among the local people and are hampering their trust to management and staff. Due to the resources being valuable and vulnerable,

management and staff feel it is difficult to devolve authority over the resources to local communities, who they feel do not have capacity to govern such resources. They are rather leaning towards the previous fortress approach, reporting that protection of the GMA should increase with stricter rules regulating the area. As locals are poor without rights or ownership to natural resources, they are tempted to perform illegal activity such as clearing land for agriculture, cutting trees for charcoal, poaching to get meat and overfishing, which in turn are hampering the resource and creating negative attitudes among management and staff towards the locals.

The rules governing the resource use have changed from being governed by informal local rules to state formal rules and the formal rules have not managed to gain full respect among the users and as a result the resources are over-used. The amount of users has grown substantially due to commercial markets opening the resource to outsiders and the in-migration of tribes from different areas in Zambia. The government and the formal rules are therefore ruling in a more difficult time and context than when the locals were responsible; protecting the resource while opening for sustainable use in a time when wildlife and timber are valuable resources with high demand from commercial markets.

The effect of this on the natural resources and people's livelihood is presented below.

5.8.1 Outcome of the regime on the resource base

The resource regime has not managed to regulate access for the numerous actors attracted to the valuable natural resources in the GMA. According to data from the government, the forest seems to be the most affected (DSA, 2015).

However, there are also several other threats to the forest caused by humans; encroachment, charcoal production, fuel wood agriculture and logging for timber. The forest in Namwala is encroached by human settlements. Clearing of land due to unplanned agricultural practices is further damaging the forest. The signs signaling the boundaries between the different zones where logging is allowed and not, have been vandalized. Due to lack of financial and material support from the government, the area has not been attended to in a long time (DSA, 2015).

Poaching remains a large problem according to the stakeholders involved in this analysis and secondary data produced by Simasiku et al., (2008). There is little data on the biological consequences of poaching and human encroachment. However,

an aerial survey that was conducted between 2002 and 2006, including among others Kafue ecosystem, show that species are decreasing due to poaching. The results show declining trends in species such as elephants, buffaloes, impalas, pukus, warthogs, zebras, Kafue lechwe and Tsessebe, and a general decline in many of the other species (Simasiku, 2008).

A newer survey on elephants reports that poaching and human settlement does not seem to dramatically decrease the number of elephants in the Great Kafue System. The carcass ratios in Kafue indicated stable elephant populations. Most of the elephant carcasses observed in Kafue ecosystems were older than one year and no new or recent carcasses were seen during this survey. This indicates that there has been low levels of poaching or deaths of elephants in the last year in the Kafue (DNPW, 2016). When the ratio is under 5%, most of the carcasses are produced by natural mortality. Over 8%, the losses may be unsustainable (Douglas-Hamilton et al. 1981). On that basis, the results from Kafue indicate that the mortality in the region is on the tipping point between increase and population decline (DNPW, 2016). This may indicate that poaching due to ivory for the international market is not the largest issue in Namwala and that poaching is a larger issue when it comes to consumption of wild meat. The carcass ratios for elephants are presented in the Table 24.

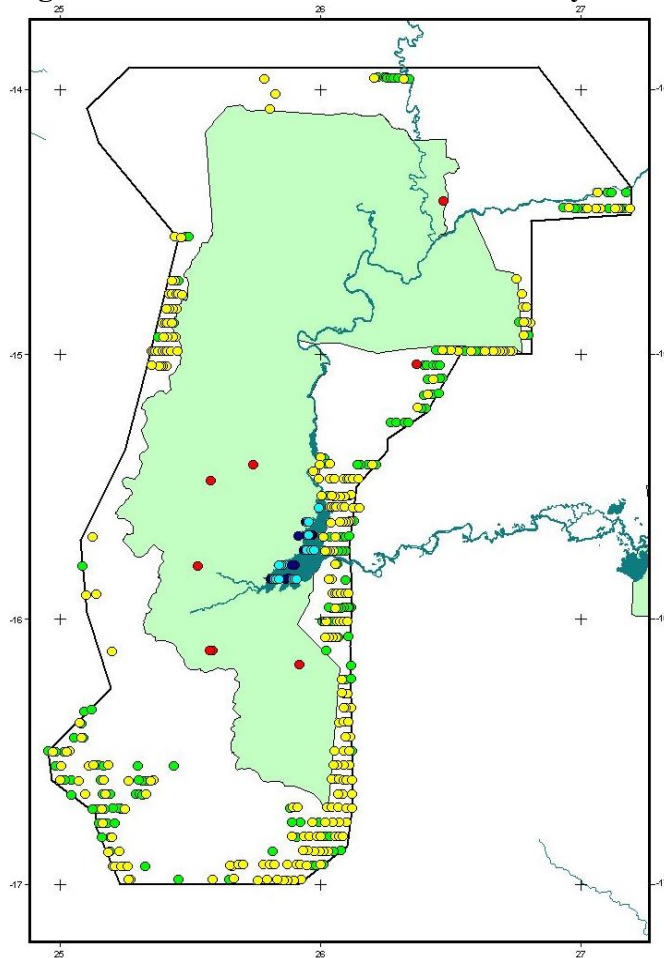
Table 24: Elephant carcass ratios in the Greater Kafue system, Zambia, 2016

	Elephant estimates	Carcass estimates	Carcass ratio%	Interpretation of carcass ratio
Kafue	6688	505	7.02	Stable

Source: DNPW (2016)

Human activity and settlement can cause disturbances in the wildlife distribution. A total 10 poachers' camps are found in Zambia, of which 6 are in Kafue, 2 in South Luangwa, 1 in North Luangwa and 1 Lower Zambezi National Parks (Figure 10). None of the poaching camps found in Kafue are located in Namwala, but the map shows how highly populated the south part of the GMA is and this may also influence the wildlife (DNPW, 2016).

Figure 10: Human Habitation and activity – Great Kafue System, Zambia, 2016



Source: DNPW (2016)

Human encroachment and intensifying of agriculture in the area has resulted in a more productive agriculture and livestock production than before. The in-migration of different tribes has contributed with knowledge regarding variations in agriculture, which has also led to an increase of products.

Crop production has improved due to influx of in-migrating tribes such as the Tongas. Traditionally, the Ila people mostly practised cattle production, but introduction to crop production through other tribes have formed a shift from livestock to crop production in the recent years. The intervention by various stakeholders providing good seeds and new farming technologies such as conservation farming, have caused improved yields for various crops.

Cattle are not the only type of livestock kept by farmers, as the area is experiencing an increase in various types of livestock. Disease surveillance and combat has proved to be very helpful in increasing the livestock population and the

general livestock condition in the district is now good. During the dry season, farmers enjoy the opportunity to graze their animals on the Kafue flood plains.

According to the District Situational Analysis, human livelihoods are increasing by compromising the forest and habitat for wildlife and other animals and according to Simasiku et al., (2008) Namwala GMA is understocked.

5.8.2 Outcome of the regime on tourism

Tourism provides incomes for the GMA and successful tourism will increase the possible revenues for CRBs and produce more benefits for local communities. However, Namwala is currently not performing very well as a tourist destination. Physical challenges such as poor roads make access to the areas of interest difficult. Park staff's lack of interpretation skills challenges their ability to promote the area as an attractive tourist destination for locals and foreigners. Lack of promotion materials such as maps, guidebooks and park regulations makes it difficult to give outsiders an understanding of the area and its resources. The management does not have sufficient transport to implement conservation and commercial activities that promote tourism. The area is in need of a tourism development plan to guide the development of tourism infrastructure and facilities in order to encourage large numbers of visitors to the area (DSA, 2015). Thus, the number of tourists visiting Namwala remains low and consequently also the revenues from tourism.

The resource is currently suffering under too many users and a regime that is not able to coordinate access successfully. This research has identified several limitations in the resource regime, which hinder the regime in successful resource governance.

6 CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

Since the world's first protected area was established in 1872 at Yellowstone, the establishments of protected areas have become a worldwide strategy for preserving natural resources (Pretty & Smith, 2004). The conservation strategy started as a "fine and fence" approach, evicting indigenous people from land they saw as their own and denying them access to natural resources. However, that undemocratic

approach was not very successful and degeneration of the natural resource base continued. An understanding of local peoples' unfair treatment and the need to improve their livelihood to decrease poaching and other illegal activity were the initiatives and aspirations behind the participatory approach, Community Based Natural Resource Management (CBNRM). This new approach saw it as fundamental that the local community was included in resource governance as a way of improving their livelihood and thereby decreasing the unsustainable use of natural resources. While CBNRM is seen as a fair approach to conservation, both by improving local peoples livelihoods and by conserving nature, the results of this type of management have been varying. In Zambia the CBNRM has not obtained the expected results and this analysis of Zambias resource regime for GMAs provide some of the reasons for this.

The analysis is based on Vatn's (2005) framework for environmental governance and institutional regimes in order to analyse how well the regime fits to govern the resources in Namwala GMA, where the fieldwork study was carried out. The attributes of Namwala GMA are challenging to govern, as the valuable resources exist in the same area as people who want to utilize the resources, there are no physical boundaries. It is also a rival resource and it is partly depleted. The local people living in the GMA are experiencing poverty and malnutrition. Regulating access is thus difficult. Management and GMA staff in Namwala should follow Zambia's Wildlife Act, which includes formal rules that should foster local participation. However, management and staff do not seem to believe too strongly in these rules and argue that a stricter policy is needed to enhance protection of biodiversity, as local communities cannot be trusted to govern the valuable resources. This is contradictory to the recommendations in CBNRM. The sceptical views towards local communities, may originate from staff experiencing problems with human encroachment in Namwala GMA. The natural resources are suffering from an increased local population, where the desire to conserve is not yet institutionalized.

The local community forms complex institutions, with in-migrations from many different tribes in Zambia who may not have the same connection to the land in Namwala as the indigenous tribe Ila and this may decrease their aspiration to conserve and protect the resources. Further, Ila has no spiritual values protecting wildlife from hunting and thus there are seemingly not strong traditional rules that foster conservation for wildlife in Namwala.

Also there are challenges in the interaction between management/staff and local people, which further constrains the success of the participation ambitions. The local people do not understand or are aware of the participation structure in the policy. This means that they are not aware of their power or their possibilities to influence the policy and management in resource governance. Local peoples' unawareness is rooted in the management and GMA staff's inability to build capacity, share benefits and devolve power to the local communities. Management and GMA staff do not know the communities well enough to consider their informal institutions when implementing the policy and their knowledge regarding local peoples' cultural values, rules and practices remain low.

An analysis of the key issues threatening the GMA, shows clearly that the policy including the participatory approach is not able to protect the natural resources from overuse and that the resources are currently threatened to a large degree by poaching, human encroachment and deforestation. The management and GMA staff's way of punishing illegal activities produce negative attitudes among local people, as they reported that poachers are occasionally killed by ZAWA. Such tragic events create further distrust between the governing actors and the local communities. Whether the current negative attitudes of the local communities are an addition to the bitterness from the past, when the GMA is established, is not clear. Local people seem to think and act more according to the current state and experiences.

Thus, issues regarding the GMA appear primarily as a social conflict with the management is not being able to coordinate access for local people in a proper and fair way and local people feel deprived of their rights to access wild meat and other natural resources. This research found that due to the management and GMA staff's inability to implement a participatory approach, the situation for local communities has not changed after CBNRM was introduced. The local people are left few benefits from natural resources and the natural resources remains threatened by unsustainable use. More effort is therefore required to build capacity and competence among management and GMA staff, so that they can become competent to implement CBNRM in a fair way that will motivate and encourage the local people to participate.

Even though there are several challenges in the interaction process, management, staff and local people all seem to have the same relational values towards the GMA and its resources. So even though the two main groups of

stakeholders in this analysis differ in many ways, they both agree and emphasise the importance of the GMA.

CBNRM has good and promising intentions. However, designing institutions for wildlife conservation, local livelihoods improvements and democratization is easier than operationalization of such approaches. Implementing CBNRM is not straightforward. It requires significant effort from all levels, from governmental agencies to local communities.

6.2 Recommendations

Capacity and competence building among management and GMA staff are necessary so they can become qualified to sensitize the communities regarding conservation and the way it can produce benefits for them. In practise, this means that governmental agencies must facilitate for GMA staff and management to undergo more thorough education regarding CBNRM and the means of implementation. They must also receive training in conservation methods, in order to become more competent in the technical areas of conservation, managing and using a vulnerable resource base. It is also important to avoid bureaucratic bottlenecks that hinder problem solving and communication within the institutions; between local communities, management and staff, but also between the different levels in the governing institution. Further, management and GMA staff must learn the importance of having respectful relations with the community. They need to consider and appreciate the informal institutions in the local community for them to be able to reach out to the community. Moreover, they need to share revenues with the CRB to enable them to perform their duties and to ensure that the key link in the CBNRM structure is not broken. If or when the CRB receives funds, there must be a transparent approach for the revenue sharing in the community and planning of projects. Since it is imperative that the people can participate and decide what the revenues should be used for. This will require strengthening of the local organizational capacity; increasing competence regarding writing and storage of reports and minutes of meetings; technical competence such as sustainable agriculture; accounting and benefit sharing skills. One key challenge is to establish effective ways for local communities to communicate, as there are large distances between different villages within Chiefdoms. Roads are often of poor quality and people do not have appropriate means of transport. The management and staff must

also assist in creating other sources of income possibility from which the local people can earn money, so they do not have to rely only on farming or illegal activity. If these incentives are implemented and local people become motivated to participate, they must be given authority and responsibility to govern their natural resources themselves. If their voices are not heard, they will not listen to the management and staff.

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ANNEXES

Annex 1

Questionnaire for local communities

This questionnaire is part of a research study in Namwala GMA, which will focus on how local people and park management perceive the governance system. The result of the questionnaire will be used to write a master thesis in International Environmental Studies at the Norwegian University of Life Sciences (NMBU).

It is important to emphasize that all participants and answers submitted will be treated with complete confidentiality and anonymity.

Part A – General Information

1. Gender Female Male	2. Age 18-25 26-40 40 and above
3. Tribe 1. Kaonde 2. Ila 3. Lozi 4. Tonga 5. Chewa 6. Ngoni 7. Bemba Other:	4. Village/home place
5. Highest level of education Primary school Secondary school Collage University Other:	6. Practical training
7. How long have you lived in this GMA? Less than 5 year Less than 10 years Over 10 years	8. What is your profession/work? 10. Are you or have you been engaged in CRB or VAG?

Part B: History

- To what degree were local communities involved in the establishment process of the GMA

Very involved Fairly involved Slightly involved Not involved Don't know

2. When the GMA was established, were the local (indigenous) people required to move from areas where they lived?

Yes No Don't know

.....
.....

2. B. If yes, how did it affect them?

.....
.....

3. Local people have less access to land and natural resources now, then before the GMA was established

Strongly Agree Agree Do not know Disagree Strongly disagree

3. B. If you agree; how does it affect you?

.....

4. Is there bitterness towards the government for taking the governance responsibility away from the local communities?

Yes No Don't know

.....

Part C: Valuation of nature

1. What do you perceive as the main social and environmental issues in this GMA?

.....
.....

2. Protecting nature and wildlife in the GMA is more important than peoples benefits from natural resources

Strongly Agree Agree Do not know Disagree Strongly disagree

3. The GMA is important for activities such as; walking/hiking or wildlife viewing/bird watching

Very important Important Don't know Slightly Important Not important

4. Are there sacred sites (mountain, river, streams, pilgrimage route etc.) in the GMA that has spiritual meaning for local people?

.....

5. B. If yes; do park management give you access to these areas?

Yes No Don't know

5. What kind of traditional activities do the locals practice in relation to nature and use of natural resources?

.....

.....

6. B. How important are these cultural values for you now?

Very important Important Don't know Slightly Important Not important

6. I see nature as part of my identity

Strongly Agree Agree Do not know Disagree Strongly disagree

Comment.....

7. The GMA provides a opportunity to learn by interacting with nature and thus people learn through practical experience

Strongly Agree Agree Do not know Disagree Strongly disagree

8. It is important to protect the natural resources in the GMA, so the resources will exist for future generations

Very important Important Don't know Slightly Important Not important

9. The GMA is important for people seeking a wilderness experience which enhances a feeling of well-being

Very important Important Don't know Slightly Important Not important

10. Some species in the GMA are perceived as very important to protect (lion, elephant, leopard) and these perceptions are important when motivating people to improve conservation

Very important Important Don't know Slightly Important Not important

11. Cooperative management of the GMA promotes regional peace and stability between the urban population and the local community

Very important Important Don't know Slightly Important Not important

12. Wildlife attacks on livestock is a large problem for local people

Strongly Agree Agree Do not know Disagree Strongly disagree

13. Wildlife damaging crop is a large problem for local people

Strongly Agree Agree Do not know Disagree Strongly disagree

Comment.....

14. Local people **should** have the right to shoot wild animals that damage their crop or kill livestock

Strongly Agree Agree Do not know Disagree Strongly disagree

15. Poaching is a problem in the GMA

Strongly Agree Agree Do not know Disagree Strongly disagree

16. Why do people poach?

.....
.....

17. The punishment for poaching is fair

Strongly Agree Agree Do not know Disagree Strongly disagree

18. If given the responsibility, would the local communities be able to punish the poachers themselves?

Yes No Don't know

.....

Part D: The policy

1. Do you know about the wildlife act (the policy) governing this area?

Yes No Don't know

.....

If yes:

1. B. Do you feel the policy is improving your economical situation?

.....

1. C. Do you feel the policy is improving social issues in the community (schools, health care, infrastructure)?

.....

2. Should local people be compensated for damage caused by wild animals?

Yes No Don't know

Why.....

.....

3. What do local people perceive as the most important natural resources for direct use in the GMA?

.....

.....

3. B. Do you have free access to these natural resources?

Yes No Don't know

.....

3. C. How important are these natural resources for you?

Very important Important Don't know Slightly Important Not important

3. D. Is it sufficient to sustain your livelihood?

To a large degree Certain degree Minor degree Not at all Don't know

4. The access to natural resources in the GMA is fairly distributed between stakeholders such as locals, tourists and the government?

To a large degree Certain degree Minor degree Not at all Don't know

5. What kind of zones is the GMA divided into?

.....
.....

Part E: Management of the park

1. What does VAG mean?

.....

2. What is the name of the VAG representative in your village?

.....

3. What is the name of your CRB representative?

.....

4. To what degree are you included in CRB's decision-making?

Very included Fairly included Slightly included Not included Don't know

5. The benefits received by CRB does not reach the community

Strongly Agree Agree Do not know Disagree Strongly disagree

6. What has been done with the revenues from the GMA in your village?

.....
.....

7. Who do you think makes decisions on GMA management?

ZAWA alone Mainly ZAWA Mainly community Community alone

8. Do you feel that the park staff and park management respect and take considerations of the local communities?

To a large degree Certain degree Minor degree Not at all Don't know

9. The park management do a good job with monitoring and securing endangered wildlife

Strongly Agree Agree Do not know Disagree Strongly disagree

10. Are park management sufficiently evicting non-indigenous people, who settle in the GMA without land permit?

Yes No Don't know

.....

11. Do you feel recognized by the park management as an important actor regarding governance of natural resources

To a large degree Certain degree Minor degree Not at all Don't know

12. Policymakers are more concerned with conservation of natural resources than with improving the livelihood of the people living in the GMA

Strongly Agree Agree Do not know Disagree Strongly disagree

13. Have you had any issues with the government or representatives from the government in regards to wildlife or use of natural resources?

Yes No Don't know

.....

.....

14. Are park management able to include **everyone** in the community in resource governance?

Yes No Don't know

.....

Part F: Locals and local participation

1. What kind of traditional rules exists regarding governance of the natural resources?

.....
.....

2. Do you agree that your traditional knowledge regarding conservation of natural resources is applicable today?

Strongly Agree Agree Do not know Disagree Strongly disagree

3. Local communities merely follow their traditional rules and norms and this govern their behavior

To a large degree Certain degree Minor degree Not at all Don't know

4. How has access to commercial markets changed local peoples behavior in regards to resource use?

.....
.....

5. Have the Chief and Headmen in your village created positive attitudes among the community towards conservation of natural resources?

Yes No Don't know

How.....

6. If the CRB received revenues from wildlife, **everyone** in the community will benefit

Strongly Agree Agree Do not know Disagree Strongly disagree

Comment.....

7. The community are able to take on all duties regarding management of the GMA

Strongly Agree Agree Do not know Disagree Strongly disagree

8. Are there variations in culture and society between different chiefdoms in this GMA

To a large degree Certain degree Minor degree Not at all Don't know

9. People in this local community has strong ties to each other and solve wildlife issues as a group

Strongly Agree Agree Do not know Disagree Strongly disagree

Comment.....

10. Are there traditions or local rules that limits participation for certain groups/people in the local community (for example woman or poor people)?

Yes No Don't know

What kind.....

11. Are you involved in any enterprises related to the GMA, for example tourism?

Yes No Don't know

If yes; what:.....

12. Are you involved in monitoring of the GMA?

Yes No Don't know

If yes; what:.....

13. The local community has real authority to govern the natural resources in their chieftdom

Strongly Agree Agree Do not know Disagree Strongly disagree

14. What motivates local people to participate in governance of the GMA?

.....

15. Are there reasons why local people do not want to participate in resource governance?

.....

Summing up: How do you think the GMA will deliver in the future and do you think it will be better for local communities?

.....

.....

Annex 2

Questionnaire for Park Management and Park Staff

This questionnaire is part of a research study in Namwala GMA, which will focus on how local people and park management perceive the governance system. The result of the questionnaire will be used to write a master thesis in International Environmental Studies at the Norwegian University of Life Sciences (NMBU).

It is important to emphasize that all participants and answers submitted will be treated with complete confidentiality and anonymity.

Part A – General Information

3. Gender Female Male	2. Age 18-25 26-40 40 and above
4. Ethnicity Kaonde Ila Lozi Tonga Chewa Ngoni Bemba Other:	4. City/Village/home place
5. Highest level of education Primary school Secondary school Collage University Other:	6. Practical training
7. In which office do you work?	8. What is your profession and position

Part B: History

1. To what degree were local people included in the establishment process of the protected area and its rules and regulations

Very included (4) Fairly included(3) Slightly included (2) Not included (1)

Don't know (0)

2. Have the locals in the GMA been required to move from areas in the GMA where they used to live?

Yes No Don't know

2. B. If yes, were they compensated?

.....
.....

2. C. If yes, how did it affect their livelihood?

.....
.....

3. Locals in the GMA has less access to land now, then before the government took over the management of the protected area, this highly affects their agriculture

Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree (1)

4. When the shift in ownership over GMAs changed from the local people to the government, locals lost a access to natural resources such as fuel wood, fodder, grazing and wild foods

Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree (1)

Part C: Valuation of nature

19. What are the main issues threatening the GMA?

.....
.....

20. What do local people perceive as the key use-values in the GMA (charcoal, fruits, firewood, grazing land)?

.....
.....

2. B. How important are these use values for local people?

Very important (4) Important (3) Don't know (0) Slightly Important (2) Not important (1)

21. The biodiversity in the GMA is important in itself, regardless of possible gains for humans

Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree (1)

22. The GMA is important for activities such as; walking/hiking or wildlife viewing/bird watching

Very important (4) Important (3) Don't know (0) Slightly Important (2) Not important (1)

23. Are there sacred sites (buildings, mountain, river, streams, pilgrimage route etc.) in GMA?

Yes No Don't know

.....

5. B. If yes; do you agree that the importance of these areas for local people are respected by the park management giving the locals access to these areas?

Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree (1)

Comment.....

24. What kind of cultural values exist in the GMA?

.....

.....

6. B How important do you think these cultural values are for local people?

Very important (4) Important (3) Don't know (0) Slightly Important (2) Not important (1)

25. There is a strong connection between local people and nature, as they see nature as part of their identity

Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree (1)

Comment.....

26. The GMA gives children and students a great opportunity to learn and interact directly with nature and thus they learn through practical experience

Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree (1)

27. It is important to protect the biodiversity in the park so that the biodiversity will exist for future generations

Very important (4) Important (3) Don't know (0) Slightly Important (2) Not important (1)

28. The GMA is important for tourists seeking a wilderness experience which enhances a feeling of well-being

Very important (4) Important (3) Don't know (0) Slightly Important (2) Not important (1)

29. Some species in the GMA are perceived as very important to protect (lion, elephant, rhino) and these perceptions are important when motivating people to improve conservation

Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree (1)

30. Cooperative management of the GMA promotes regional peace and stability between the urban population and the local community

Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree (1)

31. Because of its valuable natural resources, such as wildlife, the GMA is important for economic development in Zambia

Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree (1)

32. The natural resources in the GMA is important for economic development for local people

Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree (1)

33. Wildlife attacks on livestock is a large problem for local people

Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree (1)

34. Wildlife crop raiding is a large problem for local people
Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree (1)
Comment.....

35. Local people **should** have the right to shoot wild animals that damage their
crop or kill livestock
Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree (1)
Comment.....

36. Poaching is a problem in the GMA
Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree (1)

37. How do you perceive the act of poaching?
.....

38. What should be the punishment for poaching?
.....

39. People who illegally kill wild animals in the GMA should be punished
according to law or according to informal rules in the local community
Comment.....

Part D: The policy

1. Do you think local people are aware of the wildlife policy governing the GMA
Yes No Don't know
.....
.....

2. Conservation with high level of protection is important to protect the
biodiversity in the GMA
*Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree
(1)*

3. Is it a goal that the GMA will have even stricter conservation statues in the future?

Yes No Don't know

.....
.....

4. Including chiefs, local traditions, values and customs in the wildlife policy is important to establish a good policy

Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree (1)

5. Formal rules is the best way to govern the GMA

Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree (1)

6. When poaching occur, the process of conflict resolution runs smoothly

Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree (1)

7. The optimum is to solve conflicts in the GMA at local level?

Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree (1)

8. The local community views the sanctions for illegally killing a protected animal as fair?

Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree (1)

Comment.....

9. The compensation to local people for damage caused by wild animals is sufficient

Yes No There is no compensation Don't know

.....
.....

10. Regarding the policy, who has access to the natural resources in the GMA?

.....
.....

11. Do local people have access to sufficient natural resources, such as grazing land, to sustain their livelihood?

Yes No Don't know

.....
.....

12. The distribution of rights to natural resources in the GMA is fair

Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree (1)

Part E: Park Management and Park Staff

1. The park management are well enough trained to include the local communities in governance of the GMA

Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree (1)

Comment.....

2. At what level are decisions regarding the GMA made?

.....
.....

3. Park management should be responsible for governing the GMA, as the community is lacking capacity to govern the natural resources themselves

Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree (1)

4. Are Park management able to share the benefits (revenues) from the GMA with the local communities through Community Resource Boards (CRBs)?

.....
.....

4. B. What has been done with the revenues from the park in Kaingu, what is the money being used on?

.....

-
5. Does the park management have good knowledge of which local groups belongs to the GMA traditionally?
Yes No Don't Know
Comment.....
6. There is sufficient and qualified park staff monitoring the GMA to uphold the policy rules?
Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree (1)
7. Communities living in the GMAs are very similar and it is not necessary to take consideration of differences in the community when implementing a policy
Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree (1)
8. What does the park management do to include the poorest people in the community in resource governance?

Part F: Locals and local participation

1. Do you think local people are resourceful and have unique knowledge regarding biodiversity use and conservation
Yes No To a slightly degree Don't know

2. Local communities follow traditional rules and norms and this govern their behavior
Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree (1)

3. Do you know what kind of traditional rules and norms that exist in the local communities in Namwala?

.....
.....

4. Park management take considerations and respect these traditional rules and norms?

Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree (1)

9. Does the power relations (with chiefs and headmen's at the top) in the GMA, help or hinder collaboration with the local community?

.....
.....

5. Local people know about the boundaries between the different areas in the GMA (settlement area, buffer zone, development area and the conservation area) and the rules connected to these two areas

Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree (1)

6. To what degree do you feel that local people take part in everyday decision-making regarding governance of the GMA

Large degree (4) Certain degree (3) Minor degree (2) Not at all (1) Don't know (0)

Comment.....
.....

7. Local people are active in monitoring of the GMA

Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree (1)

8. The local community has real authority to govern the natural resources in their chiefdom

Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree (1)

9. What do you think is the most important factor for local people to participate in governance of the GMA; personal benefits or community recognition?

Personal benefits Community recognition Both Don't know

Why.....

10. Culture holds the community together and makes them a strong entity

Strongly Agree (4) Agree (3) Do not know (0) Disagree (2) Strongly disagree (1)

11. Do you agree that certain traditions or local rules limits participation for certain groups in the local community (for example woman or poor people)?

Yes No Don't know

.....
.....

12. Do you see any reasons why local people do not want to participate in resource governance?

.....
.....

Summing up: Overall how do you think the park functioning and do you think it will deliver well in the future?

.....
.....
.....

Annex 3

Interview guide for semi-structured interviews

Questions

1. Which stakeholder category best describes you?
2. What is your role in regards to governance of the GMA?
3. Who are the key stakeholders in the park and what are their roles in governance of the GMA?
4. How is the GMA managed?
5. Who makes decisions?

6. At what level?
7. Do you think this is functioning well?
8. What kind of institutions and policies exist and how are they involved in the governance of the GMA?
 9. Local institutions
 10. Implementers institutions
 11. Policies
12. What kind of traditional norms and rules exists in the local community?
 13. Before the government took over the governance of the GMA, how did local communities use to govern the area?
14. How does the key stakeholders interact in the governance of the GMAs?
 15. How do they communicate?
 16. Where do they communicate?
17. Are local people included in the decision making process?
 18. How?
19. Who has authority over the wildlife in the GMA?
20. What do you consider as the most important natural resources in the GMA?
 21. What kind of natural resources is important to conserve?
 22. What kind of natural resources is important for local people?



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