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Natural Resource Management at the Crossroads of Three Theoretical Perspectives

The Case of Sub-Saharan Community-Based Natural Resource Management

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Abstract

The current literature on community-based natural resource management (CBNRM) programmes in Sub-Saharan Africa is mostly concerned with discussing the failure of the programme. This is mainly done from a Western perspective with the same underlying assumption that Western institutions need to be in place in order for CBNRM to become successful. This leads to the question of whether the underlying assumption could be flawed? Theories shape the results and it is therefore possible that the perspective has created the failure. To understand and develop CBNRM to become more successful, a change in perspectives that takes grassroot levels (Ostrom 1990) and African structures (Comaroff & Comaroff 2012) into account are needed. The study illustrates that since locals' livelihoods are normally dependent on the natural resources, more is at stake for the citizens than for the central authorities regarding the management of it. Considering that many of the conditions for the alternative perspectives to function are in place, changing the perspective, from the top-down Western perspective, to more culturally sensitive ones is important to increase the understanding and to further develop the CBNRM programmes.

Key words: Community-based natural resource management, CBNRM, Sub-Saharan Africa, Ostrom, Comaroff and Comaroff

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Table of contents

1	Introduction			
	1.1 Research problem and objective	2		
2	Approaching natural resource management in Sub-Saharan Afr	rica 5		
	2.1 Defining community-based natural resource management			
	2.1.1 The relation between CBNRM and CPR			
3	Methods	9		
	3.1 Doing the literature review			
	3.1.1 Lundquist's model			
	3.2 Choice of alternative perspectives			
	3.3 Material			
	3.3.1 Selection of articles in Scopus			
	3.3.2 Search results – selection of articles	15		
4	Theoretical framework	18		
	4.1 The Western perspective			
	4.1.1 Success in CBNRM			
	4.1.2 Required elements for success	19		
	4.2 Perspective I: self-organising CPR's	23		
	4.2.1 The process of institutional action and changes in rules			
	4.3 Perspective II: traditional governance			
5	Changing the anatical parametrizes	21		
	Changing theoretical perspectives			
	 5.1 The Western perspective – a common theoretical ground 5.2 Success of CBNRM from different perspectives 			
	5.2.1 The influence of policy and governance			
	5.2.2 The influence of power			
	5.2.3 The influence of context			
6	Conclusion	41		
7	Reflections	44		
8	Executive summary	45		
9	References4			
10) Annendix	52		

1 Introduction

Managing natural resources has long been a challenge in developing countries where information is scarce, demands often high and the resources available to improve management often limited (Nunan 2006 p 1316). Since the 1980's many African countries have implemented various decentralising reforms that involve the country's natural resource management. Of these initiatives, several have been labelled community-based natural resource management (CBNRM). The definitions and practices of CBNRM are as many as there are countries with related programmes. Yet, the premise underlying the reforms is that sustainable management of natural resources is most likely where local users are able to manage and extract benefits from the resources (Nelson & Agrawal 2008 p 557). It is also believed that the people closest to the natural resources have better knowledge on how to manage them, and have more incentives to manage the resources sustainably (Nunan 2006 p 1317). The control over local natural resources has long been one of the key issues for rural populations in Sub-Saharan Africa as they form the basis of the population's daily livelihoods, and natural resources have therefore also created an important arena of political struggle.

Although not named CBNRM until later, the characteristics of the programme can be derived from the colonial period, when local institutions based on traditional leadership were put in place varying according to a great range of cultures, ecologies and material needs. At this time, they were in many ways neglected by administrators, except for political and strategic control, labour mobilisation and later on, for soil and water conservation. (Blaikie 2006 p 1943) Yet, in the 1980's, the programme evolved as part of the will to develop rural areas, involve local communities in development issues and – what initially was perceived most important - the conservation of natural resources that most rural dwellers depend on. The concept of CBNRM is based on common property management theory, which promotes resource ownership, control and use by local communities. It was founded in southern Africa, where Zimbabwe is often seen as the pioneer in the field, followed by Namibia. At the outset, the programmes focused on the management of wildlife, and had an aim to ensure that people living in areas rich in wildlife could also derive economic benefits such as employment and income from it. Over time it has diversified to comprise other natural resources such as veld products, rangelands, marine and costal resources as well. Similarly, the objectives evolved to include resource conservation, improving livelihoods, sustainable use of the natural resources, community-based tourism and environmental education for communities. (Sebele 2010 p 137ff)

CBNRM is since then widely spread over Sub-Saharan Africa. No programme looks exactly the same, but all are founded in Western decentralisation theory. Many decentralising countries have in practice experienced problems regarding

the many – and sizeable – objectives of CBNRM. This has led to a considerable amount of critique against the programme as such, where previous research have subsequently criticised the decentralisation efforts because of, for instance, the lack of devolved power – many decentralisation efforts rather result in privatisation and/or deconcentration –, the reforms have not been established in law or implemented in practice, lack of mechanisms for downward accountability and lack of capacity. Criticism has also been aimed at the tendency of decentralised projects to mobilise people as labour rather than empowering them to make decisions for themselves. (Ribot 2003 p 56ff, Ribot 2004) Zambia and Lesotho are, as an example, referred to as less successful examples of decentralised natural resource management (NRM) because of, among other things, bureaucratic delays and its complicated organisational arrangements with overlapping mandates. Moreover, Malawi is less successful due to its lack of accountability and transparency on a local level, and Zimbabwe because of its lack of devolved powers. (Campbell & Shackleton 2001, Roe et al 2009)

However, according to the literature, there are relatively successful cases too. The country that most often is seen as one of the most successful in the area is Namibia that in 1996, through a legal amendment constructed a more creative CBNRM where inhabitants create community conservancies in which its members manage as well as benefit from wildlife. Lately the programme has expanded to include management of forestry as well. By the end of 2007, communal land conservancies in Namibia covered 118,700 km2, involved over 220 000 residents in 50 conservancies, and generated income and benefits totalling over 3,9 million US dollars (NACSO, MET), thus making it the biggest decentralisation effort of NRM in the region (Roe et al 2009 p 100).

Research (i.e. Campbell & Shackleton 2001, Ribot 2004, Roe et al 2009) derive the Namibian success partly from its CBNRM model that in many ways has a unique design of its initiatives: for example, the rights granted to the communities over wildlife are relatively extensive and secure; they are conditional and can be revoked, but not limited to a specific term. Moreover, unlike all other countries in the region, there is no "middle-man" (such as district organisations) in Namibia between the local and the private sector, and conservancies can only come into existence through local voluntary initiation and being registered after having met the criteria set up (Murphree & Taylor 2009 p 117, Campbell & Shackleton 2001 p 91).

1.1 Research problem and objective

It is clear that previous research is very much occupied with discussing success and failure, and reasons for them, within CBNRM programmes in Sub-Saharan Africa. Interestingly, success is mainly discussed with Western decentralisation theory as an underlying assumption. The, in some countries, large amount of people included in the CBNRM programmes, and the big values it is

based on, are discussed as if it was a Western country decentralising its NRM, and perceived issues in all countries have been presented solutions based on democratic decentralisations that have taken place in the West. Consequently, Sub-Saharan African countries are successful or less successful in relation to how the Western nations deal with decentralisation, and the measure of success then assumes an African response to what could be called Western acculturation. It seems as though the point of departure – or input values – and the way of dealing with NRM is rather similar in previous research – that the theories shaping the outcome of the studies are very alike: research in the field could resemble what Kuhn (1970) refers to as a "paradigm". Paradigms consist of models that create special coherent scientific traditions – or, thinking patterns – that in turn leads to certain conditions for what can be called "normal science". Given that research draws on other research, what is written today is less likely to challenge the foundations on which the previous research lies, as the people within the same field have also acceded to the same rules and criteria for the research. (Kuhn 1970 pp 22ff) On this account, we believe that we can make recommendations on how to organise CBNRM in Sub-Saharan Africa, but the model the recommendations is based on, is derived from a closed world, resting on "normal science". Given that CBNRM is perceived mostly as a failure from the Western perspective, it leads to the question:

• What if the underlying assumption is flawed?

If the underlying assumption is flawed – or even wrong – in the way of discussing CBNRM it, itself, creates issues and failures in the programmes. The way CBNRM is handled as a democratisation process thus unables the success of the initiatives. As Allison and Zelikow (1999) and Lundquist (1993) argue, theories shape the evaluations, explanations and predictions (Allison & Zelikow 1999 p 7), and the result is dependent on the problem, method and material (Lundquist 1993 p 119). The results are thus dependent on the input values.

Hence, it is possible that new perspectives are needed in the CBNRM field. Previous research is based on an "outside" and "downward" perspective, yet other more "upwards" and locally rooted perspectives on decentralisation and NRM exist, but are overlooked in implementation and research on CBNRM. Ostrom's "Governing the commons" (1990)¹ is in this case an interesting perspective to depart from because she discusses decentralisation of NRM, but with a focus on the local level. From this perspective, and unlike the Western perspective, the best solutions to the management of resources do not come from the "outside", but from within the communities, and local property can be successfully managed by the local commons and without the involvement of central authorities and privatisation. (Ostrom 1990) This perspective deals explicitly with NRM at a local

¹ Elinor Ostrom has a rich list of publications. The book "Governing the commons" (1990) is however considered as her "master piece" and her later work is to large extent follow-ups of it (Lewin in SvD 1999). For this reason I have chosen to depart from this 1990 publication, and not her later work.

level yet, interestingly, most research sets out on the foundation of this perspective, with for instance the idea that local people can manage their own resources, but research still shift the focus to the importance of the central state (Roe et al p 7ff).

Another approach that is often overseen but still an applicable dimension in the CBNRM debate, is that by Comaroff and Comaroff (2012) that at a local level takes on a governance perspective, where the indigenous African structures are seen as something that should be integrated into the model; for example the position of "traditional leaders". This is in stark contrast to the existing research, where the underlying assumption is that programmes should implemented from the top down and based in Western structures.

Consequently, there are other perspectives on NRM, and since CBNRM now may be trapped in "normal science", it leads to the question:

• How could we understand and develop CBNRM in alternative ways, taking grassroot levels and African structures into account?

Because underlying assumptions could affect perceptions of success I will, in the pursuance of this broad question, pay special attention to the following:

- Perspectives on success
 - o The influence of policy and governance
 - o The influence of power
 - o The influence of context

The purpose of the study is to analyse CBNRM from different perspectives and increase our understanding of the success and/or failure of such programmes. The concept "governance" will in this thesis be used as shorthand for formal structures, that is, how the system is organised. The other subcategories, subordinate to that of perspectives on success, are rather closely entangled, especially governance and power. Nonetheless, the categorisation here is based in "governance" being how the system is organised, whereas "power" regards how the power is distributed, which is not necessarily according to the formal structures.

The thesis begins with a brief history of the management of natural resources and is followed by an account of how CBNRM can be described. After the methods have been described, previous literature is assessed and reported on which will then form what I will refer to as the *Western perspective*. The alternative perspectives that I will set in relation to the Western perspective, is outlined. This is followed by an analysis where the alternative perspectives are set in relation to the Western perspective – what happens to the result when one of the components – theory – of the research changes? – and after that a conclusion and discussion on the findings.

2 Approaching natural resource management in Sub-Saharan Africa

Sub-Saharan Africa has during the last decades become increasingly interesting to the surrounding world, as the continent's natural resources have proven valuable. The wide variety of resources not only consist of non-renewable ones, i.e. oil, gas and metals, but also – as typically employed in CBNRM – forest, open woodland or livestock grazing, wood supply, medicines, and famine foods; farm land for gleaning, grazing after harvest and crop residues; wildlife for game meat and safari incomes; fish in fresh water lakes; aquifers, tanks and irrigation channels for domestic and livestock water supply and irrigation (Blaikie 2006 p 1942). The revenues generated from these resources and the management of it varies, and so the question on how to best manage these resources is being widely debated in academia as much as in governments, leaving the management of natural resources in many places to be characterised by "a complex web of interests and tradeoffs between interacting sets of local people, government departments, national and international planners, and professional advisers" (Grimble & Wellard 1997 p 177).

The management of natural resources goes far back in history, during which time the views on NRM very much could be divided into two camps: the *conservationists* that focused on the sustainable use of natural resources for human benefits, and the *preservationists* that believed in protecting the environment from human impacts for its own sake so future generations could enjoy and experience nature as had their predecessors. Even NRM today contain elements of these both views. (Padgett et al 2012 p 20) Proper management of natural resources is thus important for reasons posed by both of the above perspectives: the, in many Sub-Saharan countries, vast amount of natural resources that can be used for economic advantage, are important sources for incomes i.e. exports, and big game hunting, but they are also important for national reasons such as food security.

There are various approaches on how states handle NRM; top-down, adaptive management, and the latest way of doing so is through varying degrees of decentralisation. Given the history of NRM in Sub-Saharan Africa, where small villagers traditionally had been the owners and regulators of the natural resources, the nationalisation of the resources were seen as expropriation (Ostrom 1990 p 23) Binot et al (2009 pp14ff) divide the different approaches to community involvement in NRM into three (see *Table 1*), after their level of state/community involvement; in *Protected area (PA) outreach* the communities are passive beneficiaries of NRM that are conducted by other PA managers. The state is the resource proprietor and the community's role is to cooperate with PA managers in

protecting the PA's resources. Community involvement via *co-management* is where communities participate through co-management agreements or other forms of involvement. The state is the resource proprietor, but it may decentralise or deconcentrate the management. In this case the communities cooperate with state authorities in the management of PA or the natural resource in question. The third approach to community involvement, and the one that I will depart from, is *CBNRM*, which will be defined under section 2.1 below.

	Resource proprietor	Community role	Level of local participation
Protected area (PA) outreach and benefit sharing	State	Receive benefits from PA managers; co- operate with PA managers in protecting PA resources	Weak; participation limited to largely passive actions
Co-management (or joint management)	State but may be decentralised or deconcentrated	Co-operate with state authorities in management of the PA or resurce in question	Medium; depends on the rights and responsibilities granted to local communities in a given situation
CBNRM	Local communities through collective representative body	Resource management through either delegated usufruct rights (user rights) or outright proprietorship	High; communities as main proprietors, decision-makers, and beneficiaries

Table 2.1: A spectrum of approaches to community involvement in natural resources management (Roe et al 2009 p 15)

CBNRM is the type of NRM that is most established locally, and given that international donors also extensively support CBNRM initiatives, it is of a more general interest to examine this more closely. Moreover, considering the donors' support, the literature is mostly occupied with this type of NRM.

2.1 Defining community-based natural resource management

In order to discuss CBRNM, an understanding of what the concept can be is required. There are many definitions used to discuss the phenomena; minimalistic definitions include, for instance, Murphree's (2009 p 2553) "the communal management of natural resource commonages where the grasp of direct state management does not reach" and Boudreaux & Nelson's (2011 p 17) "a strategy for allocating and managing use and benefit rights over resources". Fabricius & Collins (2007 p 83) puts more emphasis on human values in their definition of

CBNRM as something that "focuses on the collective management of ecosystems to promote human well-being and aims to devolve authority for ecosystem management to the local (community) level". More specific definitions is exemplified by Child & Barnes's (2010 p 283) "a rigorous process of institutional reform that combines the devolution and delineation of property rights with collective action in rural communities to improve the value of sustainability of wild resources".

Roe & Nelson (2009a p 5) also draws on a more general definition of the concept and defines it as "a term to describe the local management of resources such as land, forests, wildlife and water by collective, local institutions for local benefits" that can take many different forms in different locations, socio-political and bio-physical contexts.

Binot et al (2009a p 13) notes that CBNRM not only has different meanings in academia, but that there is also a discrepancy in the use of the concept's inherent and operational definition. For instance, the inherent CBNRM definition is that local groups of people (communities) manage resources in an active manner and with some significant degree of formal (de jure) or informal (de facto) control or tenure over those resources. However, the *operational* definition, which is mostly used by governments and donors, include a wider range of local level involvement, ranging from passive to active in NRM. Given this difference in operational and substantive definition, CBNRM may in practice refer to a wide range of different modes of local involvement in NRM, including protected area (PA) outreach or other instances where *communities* are not actually managing much themselves. Yet, substantively, CBRNM requires that local people have a reasonable degree of tenure control over lands and resources, and themselves can make decisions about resource use, allocation and access in order to manage and conserve natural resources based on their own social and economic interest to sustainably use the resources. (Binot et al 2009a p 13f)

It is evident that there are many definitions of CBNRM, some authors are even referring to CBNRM yet by using the term "decentralised natural resource management". For this reason I will use a generous definition of the concept for the literature review I will conduct, in order not to miss out on any important information. Departing from an all too narrow definition such as Child & Barnes's (2010) may obstruct and/or hamper the possibilities of other ways to understand CBNRM.²

7

² CBNRM is recurrently criticised for the usage of concepts like "community" and "insitutions" (see i.e. Blaikie 2006, Nunan 2006) – two main components of the initiative. This is however not dealt with in this study since it is concerned primarily with the theoretical discussion of the programme rather than the phenomenon. The mentioned critique lies in the latter, and is therefore not discussed.

2.1.1 The relation between CBNRM and CPR

The perspective proposed by Ostrom's (1990) is founded in CPR:s. It is therefore important to discern what type of NRM it is, and what the relation between CPR and CBNRM looks like.

A CPR can be defined as a "natural or man-made resource system that is sufficiently large as to make it costly (but not impossible) to exclude potential beneficiaries from obtaining benefits from its use." Ostrom (1990 p 30). In her theoretical framework, Ostrom distinguishes between resource systems and resource units produced by the system, while still acknowledging the interdependence between the two. Resource systems are defined as "stock variables that are capable, under favourable conditions, of producing a maximum quantity of a flow variable without harming the stock of or the resource system itself", and can for example be fishing grounds, groundwater basins, lakes etc. Resource units are what individuals appropriate or use from resource systems, which can be illustrated by fish harvested from fishing grounds. (Ostrom 1990 p 30)

The relation between CPR and CBNRM in turn, can be understood in that CBNRM is based, at least in its underlying conceptual foundations if not always in its implementation, on scholarship on CPR. Traditionally, some resources have been managed collectively rather than individually because the resources are subject to shared uses, and would be costly to manage individually (Roe & Nelson 2009a p8). CBNRM can also be considered as a way to handle the otherwise cumbersome CPR (Andersson et al 2004 p 421). Consequently, the NRM logic can be arranged accordingly: CPR is a version of NRM, and CBNRM is a version of CPR (see *Figure 1*).

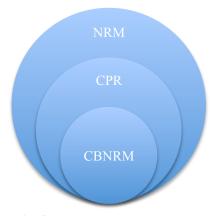


Figure 1: Logic of NRM systems

3 Methods

"The purpose of research is to contribute in some way to our understanding of the world" says Hart (1998 p 12). An important part, integral to the success of research is the literature review, where "the selection of available documents on the topic (...) written from a particular standpoint to fulfil certain aims or express certain views of the nature of the topic and how it is to be investigated, and the effective evaluation of these documents in relation to the research being proposed" takes place before the "proper" research commences (Hart 1998 p 13). Critical reading is thus very important to be able to contribute to knowledge, since knowledge generation and understanding are an emergent process and not a universal product. To know the nature and character of the implications of a development (research that is), you need to know the intellectual context of that development. (Hart 1998 p 26)

In order to examine the research question on whether the underlying assumption is flawed, I first conducted a thorough literature review on previous research to see what the perspective in use was. I analysed the material in order to identify the underlying assumption, which gave me the background to discuss the consequence of this perspective, and additionally what happens if the perspective is replaced, by alternative perspectives.

The first part of the study can thus be described as "research on research" where the previous literature serves as the empirics. The processing used in the study will allow for a deeper knowledge and understanding of the field (Patel & Davidson 1994 p 99f).

For a deeper knowledge of the field, a sort of text analysis would traditionally be conducted, yet the purpose of the literature review is to extract assumptions, concepts, and key ideas from the previous research hence techniques such as for example discourse analysis, content analysis or similar are beyond the scope of this review's interest (Hart 1998 p 110).

3.1 Doing the literature review

The concept "analysis" can be defined as the act of "systematically breaking down something into its constituent parts and describing how they relate to each other – it is not random dissection but a methodological examination" (Hart 1998 p 110).

Reviewing research is about evaluating the logical coherence of theories, methodologies and findings in a context of informed scholarship (Hart 1998 p 44). Drawing on the definition of analysis, the elements constituting the scientific text,

needs to be identified and systematically broken down, which I did by recreating the research process according to Lundquist's (1993) model (see section 3.1.1). Recreating the research process will discern the structure of the text and what the perspectives in use are. Yet, some of the texts were less perspicuous in their research process, and more or less explicit in their way of dealing with NRM, meaning that I – to a certain extent – needed to interpret the underlying message of the text. As Fairclough argue:

it is clear that some texts receive a great more interpretative work than others; some texts are very transparent, others more or less opaque to particular interpreters; interpretation is sometimes unproblematic and effectively automatic, but sometimes highly reflexive, involving a great deal of conscious thought about what is meant, or why something has been said or written as it has.

(Fairclough in May 2011 p 152)

According to the hermeneutics we cannot disengage from our subject matter, but must proclaim our commitment and engagement as a condition of understanding social life. The research we undertake depends on our way to understand and interpret social life. (May 2011 p 14) This, I believe, relate not only to traditional interview-, document- etc. analyses, but just as much to reviewing earlier literature; my preconceptions may have influenced the way I interpreted the texts. However, as the purpose of the review was to reconstruct the research process, the interpretations of the implicit ways NRM has been dealt with ought to be fewer than the explicit ones. Moreover, I have tried to describe the actual interpretations that I made and they are based on a model, thereby allowing the reader to form an opinion about the interpretations made in the text.

3.1.1 Lundquist's model

Lundquist's (1993 p 116ff) model "The research process between reality and result" serves as a model for the analysis of the research process. Lundquist (1993) presents the model as a tool for the researcher to deal with the methodological challenges of the relation between "reality" and "the result" in the research process. The main idea of the model is that what takes place in the process sets the scene for what will then be selected as material, for what is analysed and ultimately presented as the result (Lundquist 1993 p 117). The model is based on the elements that, according to Lundquist (Ibid), take place in the research process; namely *problem, theory, methods, analysis, reality, material* and *result* (see *Figure 2*).

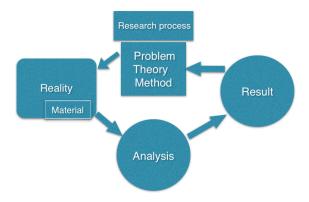


Figure 2: The research process between reality and result (Lundquist 1993 p 118)

According to the model, the researcher looks upon reality based on certain beliefs that are determined by the methodology. After the methodology has confronted reality, the analysis is provided a material. (Lundquist 1993 p 118) The material is thus a reflection of the reality shaped by the methodology, and the material therefore "only answer the questions that the scientist pose, recognises only the phenomena that the theory identifies, and only reflect the aspects of the phenomena the method is able to capture" (Ibid.).

In order to give the building blocks of the research process attention, that likewise constitute the building blocks of the research itself, it is of interest to review the previous literature according to this model. Analysing the texts departing from the model will provide a good understanding of how the literature has dealt with the decentralisation of NRM.

Hence, the focus of the literature review was on untangling the previous research's formulation of problems, theory, methods, material and the result to see whether there might be a paradigm in the way the research has been conducted in the NRM field. Similarly, the *reality* is taken into account: the *reality* in this case is the Sub-Saharan African context, and this model will expose how the reality has been dealt with based on the theoretical presumptions. However, the reality of reviewing articles is that it is often difficult to separate analysis from results. For this reason I decided to combine these two components and operationalize the *analysis*, looking for specific elements in it. This way, some specific parts of the analysis that are of most interest are exposed, whereas the main aspects of the article is brought to light in the results component. The operationalization of the concepts from which I depart in the analysis was then rather open, since the main objective was to gain an understanding of what the research consists of, and it's explicit and implicit presumptions. Too narrow and too many parameters would hinder this full understanding. Nevertheless, there are some parameters I payed close attention to: what elements are needed for success and what elements that hinder success, that is failure. The definition of success was also emphasised in the review, since this provided an understanding of what the literature is trying to achieve.

Finally, Lundquist's (1993) model was employed in the second part of the study, where one of the components of the model – that is *theory* – is replaced with Ostrom's (1990) and Comaroff and Comaroff's (2012) theories to see how this may change the other components of the model.

3.2 Choice of alternative perspectives

The thesis thus not only consists of a literature review, but also puts the previous research (called the Western perspective) in relation to two alternative perspectives by Ostrom (1990) and Comaroff and Comaroff (2012). The intention is not to compare the perspectives with each other, since the purpose is not to describe differences or similarities, or to explain how and why these differences occur (May 2011 p 254) but more to replace the various perspectives to create a better understanding of CBNRM.

The perspectives challenging the paradigm/the Western perspective are Ostrom's (1990) "Governing the commons" and Comaroff and Comaroff's (2012) "Theory from the south". These were chosen as they shift the focus on, what I believe can be summed up as top down institution building based on exported models from the West, to more "upwards" thinking. The Western perspective could be seen as detached from the Sub-Saharan African context – or *reality* – in that it, as argued above, discusses CBNRM as it was a western country decentralising its CBNRM. This is in stark contrast to the other perspectives that I aim to compare to, which relies more on context and institution building from below.

The framework proposed by Ostrom (1990) is not unexplored in research on natural resource management: For example, Agrawal (2001), Boudreaux & Nelson (2011), German & Keeler (2010) refer to and discuss it. However, they discuss the perspective in general terms (apart from Boudreaux & Nelson (2011)), and thereby disregard the country specific context that is of value when discussing success or lack thereof in CBNRM. Moreover, and perhaps most importantly, as Roe & Nelson (2009a p 7ff) argue, the central assumption of CBNRM that local people will be able to manage lands and natural resources through locally devised rules and procedures as communal property, is indeed predicated on Ostrom's work. Most research thus sets out on the foundation of this perspective, yet they focus on top-down institution building, instead of Ostrom's way of analysing the CPR. The framework is concerned with CPR situations that can be described as one level of NRM out of which CBNRM has grown as a lower level. Given that CBNRM is now trapped in "normal science", going back to the source of the concept and the way of thinking about NRM originally could offer a different perspective on CBNRM: perhaps parts of the big picture, that is CPR, have been forgotten when trying to make it more accessible and easy to work with? Or, the big picture might even been forgotten when moulding the perspective to conform with Western decentralisation models?

Comaroff and Comaroff (2012) offer an interesting governance perspective within the African context that is often overlooked, with the role of traditional leaders. Relating this perspective to the otherwise top-down oriented approaches with governance concerns in the Western perspective to the NRM field, I believe, might change the outcomes of Lundquist's model given that what we would call "good governance" is traditionally in place in their study. Moreover, integrating the CBNRM field with that of traditional leaders and democratic governance is of particular interest since there across Africa is a long tradition of traditional approaches to the management of natural resources, consisting of a wide array of indigenous resource systems (Binot et al 2009 p 31). Comaroff and Comaroff (2012) base their study on one country - Botswana - more specifically the chiefdom Tswana – a country that is of course unique. However, they note some circumstances that enabled the chiefdom to work the way it did: its comparative ethnic homogeneity, its small size and its proximity to a particular historical past. These realities do not obtain everywhere in the world, yet they argue, "the vernacular political forms found there bear strong similarities to others in Africa, some of them clearly visible, some submerged, some violently suppressed". (Comaroff & Comaroff 2012 p 130) Most countries thus have/have had these traditional political forms and institutions, which could make it work in other contexts as well. However, the fact that the Tswana people were fairly democratic does not mean all of the indigenous societies were (nor all the Tswana kings). It should be remembered though, especially when using this perspective elsewhere, that the understanding of "traditional" tenure vary from country to country, and even chiefdom to chiefdom, and that the concept therefore can be highly controversial. The legitimacy of "traditional" governance institutions is often contested in countries where the institutions were defined or even established by colonial administrators (which was common for natural resource management) for indirect rule. It may be argued that such institutions are not traditional at all, since they were bestowed on them. (Mamdani 1996) With regards to this, some caution has to be taken when referring to some of the management as traditional.

The relatively recent publication by Comaroff and Comaroff (2012) makes this perspective new to the field of CBNRM. Although, Comaroff and Comaroff have published plenty before, it seems as though their perspective has not been taken into account in this field.

3.3 Material

Since part of the study can be described as "research on research" the empirics of it is the earlier research in the field. The literature will not exclusively be used for composing the "Western perspective" but also to exemplify how NRM is dealt with in some Sub-Saharan countries, as part of the *reality*.

For the literature review I have chosen to analyse articles rather than books, since articles in general are more up-to-date than books. Articles are also often more specific than books in the area for research, meaning that some subjects of "fields within a field", such as CBNRM are too narrow to carry an entire book (Reinecker & Stray Jørgensen 2006 p 217f).

Articles chosen for the literature review have been gathered by systematic searches in the Lund University Libraries search engine for general articles on the topic, as well as the citation-based search engine Scopus. The general articles were chosen based on relevance, and served as a way to get an overall picture of the topic. In order to get a better understanding of what is most influential in the field I decided to complement these articles by doing systematic searches based on number of citations in the search engine Scopus. Scopus is the largest abstract and citation database of peer-reviewed literature, and in comparison to the other citation oriented database Web of Science, Scopus has a bigger scope (LU Libguides), which is an advantage when trying to get an overview of what has been written in the field. However, Web of Science, unlike Scopus, has a more complete database of citations prior to 1996 (LU Libguides). On the grounds that this study is more interested in what is currently being written in the NRM-field, articles published before 1996 are not considered in the analysis, and the lack of articles before 1996 is less of a problem. Moreover, as research refers to previous research, the literature published before 1996 is likely to be taken into account despite the scope of the database. The relevant literature was found using the flow chart of the literature search constructed by Hart (1998 p 34ff) in which I started out by an initial mapping of the topic area, and an identification of sources of information and guides to the literature (in this case Scopus). The following detailed search of sources helped to identify articles and reports. This detailed search will be elaborated below

3.3.1 Selection of articles in Scopus

The main tactic in order to navigate the vast literature and to make the analysis of the earlier research as influential as possible was to choose articles with the most citations

The number of citations of an article indicates how much referred to an article is by other authors, and therefore also indicates what is mostly talked about within the field – the core ideas of the literature (Hart 1998 p 39). Selecting the most frequently cited articles thus gives an understanding on how research most often deals with CBNRM: the more citations, the more established is the way of handling/thinking about CBNRM. Moreover, the criterion of citations is of high relevance since it helps identifying the core works in a field (Hart 1998 p 39f). These are often the most prominent works and the ones who set the agenda, which means that it is often this particular research that is being discussed. However, using a large number of citations as a criterion is not entirely without problems; it also has the consequence that newer research might be disregarded given that it has not had enough time to be cited yet. To make sure that the articles are still

valid in today's research I selected only articles that had been referred to in recent years. If the articles are referred to in today's research, the older ones are still relevant and set the agenda in the field. Moreover, when using number of citations as an important criterion for selection, it is important to note that the most cited work is not necessarily the most important; it is not a judgement of quality or importance, but merely a nominal count of use by others (Hart 1998 p 33). Of interest in the literature analysis is however what is most talked about, and how most deal with NRM, not just to find the most notable works within the field. Yet, as stated above, the most notable works are often the ones that set the agenda, and to identify these more criteria are necessary.

Given that the articles should be relatively representative as to how the literature organise decentralised NRM, I selected articles where some of the literature deals with decentralised NRM on a general basis, whereas some deals with it based on country-specific analysis. Variation in the sample where only a few but different cases are included, will disclose the potential range of variation and differentiation in the field (Flick 2009 p 122). The reviewed articles have been published between 2000 and today, and will therefore provide an overview of how research is conducted today in the field. Using relatively recent research is also helpful to understand the earlier literature, since research, as Lundquist (1993 p 114) argue could to a certain extent be seen as cumulative, and thus draw on previous studies.

Another important criterion when selecting the articles was *relevance*. The voluminous fields of NRM and CBNRM, consists of many different research fields including for instance biology, geology, political science, development etc. and many different kinds of natural resources. The aim was to include as many of these as possible (as long as relevant). Since the programme is not exclusive to Africa, but also exist in Asia, many of the articles also concern CBNRM at this continent as well. Despite some of the articles are not purely African; this could also be advantageous as it will add other aspects to CBNRM. Determining what is relevant to the study is therefore of great importance, and I did so partly by modifying the search criteria, and partly by reading the abstracts.

Additionally I, given the great importance of management of natural resources in general, and what I believe is a "western way of thinking" around it, also set out to see whether there were any African authors writing about CBNRM, and if their work differed in relation to the "western" way of dealing with it.

When searching the database Scopus based on these criteria, the following findings were made.

3.3.2 Search results – selection of articles

The search for articles started with defining the research topic that is natural resource management. This was followed by narrowing down the field to CBNRM, out of which the search criteria were developed taking account of what to include and exclude (Hart 2001 p 23). Despite the focus on CBNRM I decided

to include "decentralisation natural resources" in the search results as the discussion on decentralisation of NRM in practice often refers to CBNRM reforms, since CBNRM is a version of NRM decentralisation (see *figure 2*). As stated earlier, the line between what is CBNRM, PA outreach and decentralisation of natural resources is rather blurred in practice (see section 2.0) this will be reflected in the selection of articles. Some may not define some articles, or parts of them, as CBNRM but rather as "decentralised NRM" and vice versa. However, considering that there is no definite definition of CBNRM, these double sided articles can be valuable as well.

Starting out by searching for CBNRM OR "community-based natural resource management" OR decentralization natural resources in article title, abstract and keywords with no specified date range, the database returned 643 document results. The results showed that the top three most cited articles were although very well cited, but all from late 90's, making the research less relevant, for reasons earlier stated. Another consequence of the search was that the results also took research on Asia and Europe into account, and thus failed to meet the relevance criteria. Discussions on CBNRM in Europe or Asia could imaginably be relevant for the general discussion on CBNRM; nonetheless, the ample material is likely to divulge these considerations anyway despite a focus on Sub-Saharan Africa.

I therefore narrowed down the search criteria further to CBNRM OR "community-based natural resource management" OR decentralization natural resources and added Africa as an additional search field. I also changed the date range for the publications to 2000 - present to make it reflect current research. A citation analysis in its purest form, include going through the entire range of articles, starting with the oldest articles in the list, and working through to the most recent, in order to show the increase and decrease of citations of a work over time (Hart 1998 p 39). Yet, the main focus of this study is on what is talked about today, and the years of publication have therefore been narrowed down. This search retrieved 144 document results where the top 10 most cited articles showed a good variation in the publication date and scientific journals, however, many of the articles, at a glance, still did not come across as particularly focused on discussing success and failure; and so the search criteria had to change yet again.

Adding *AND success* in the same search field as *Africa* the search engine retrieved 17 results, where many of the results were African authors from African universities. I decided to see what happens if one replaces *success* with *failure* and out of the 7 results, all of the authors were westerners from western universities. What does this mean? Are Africans more positive to CBNRM than people in the West, and if they are – why? Could it be because they are more familiar/sensitive to African values than are western researchers? However, it turned out that most of these articles were more nuanced in their argumentation than it seemed in the title and abstract. The majority of the articles with "success" in their title or abstract also contain "failure". However, many of the articles from the search with "failure" are primarily concerned with failure and not success.

Based on these searches I selected 25 articles – some chosen from the searches with *failure* and *success* as a variable, and some from the more general search.

Moreover, I made sure to select articles with a variation in cases – some focusing on specific countries, and others that treat the subject in more general terms. The selected articles and their main elements are presented in the appendix (Table 5).

4 Theoretical framework

The objective of this thesis is to analyse how different perspectives on CBNRM can increase our understanding of the success and/or failure of these types of programmes. To do so, I will in this section describe how the current literature deals with CBNRM. Thereafter I will describe the alternative perspectives by Ostrom (1990) and Comaroff and Comaroff (2012). Since the study is based on the notion that most of what is written on CBNRM in Sub-Saharan Africa is predicated on what Western countries believe constitute good decentralisation, I will refer to this model as "the Western perspective". Although not all research is conducted this way (after all Ostrom, Comaroff and Comaroff are all westerners, and the literature include African authors) I believe that the model is to a great extent founded in Western decentralisation models during the creation and implementation of the programmes. The perspective can thus be seen as representative to the Western way of thinking.

4.1 The Western perspective

Literature on CBNRM most often focuses the discussion on the reasons for the many failures of CBNRM, rather than the cases of success (Measham & Lumbasi 2013 p 649). The reason for this focus is that failure is considerably more prevalent than success. There are, as Murphree (2009 p 2552) puts it; "a few spectacular successes, a number of perverse outcomes and a plethora of examples between the two extremes, usually showing little progress and chronic inertia". Given this pessimistic focus, much of the literature is dedicated to evaluate present programmes to identify non-favourable elements for the functioning of CBNRM, and to thereafter provide recommendations on how to achieve a successful programme.

4.1.1 Success in CBNRM

Considering the great emphasis on success and failure, it is important first to define what "success" can be according to the literature, before discussing what elements are considered important for the success of it.

The definition for what success in CBNRM is varies greatly depending on author. Success can be seen as reaching the objectives of the programme, and most therefore depart from their definition of CBNRM and its aims. For Roe et al

(2009b p ix) success in CBNRM seems to be when rural communities are flourishing, and sustainably managing their land and natural resources. Child & Barnes (2010 p 284) considers CBNRM successful when it controls high-value uses, which include both monetary values (i.e. incomes from hunting) and nonmonetary values (i.e. proprietorship or eco-system services), and the political transformation that takes place through democratisation, equity, transparency and accountability (Ibid.). Boudreaux & Nelson (2011 p 17) define success based on their case Namibia, and recognise that successful CBNRM is when "local management of wildlife and other resources can produce positive outcomes such as rural economic development, a healthier environment and improved local governance", which is a definition that Collomb et al. (2010) seems to depart from as well. Measham & Lumbasi (2013 p 650) converge on the principle that CBNRM is successful when it encourages "better resource management outcomes through wide participation of local communities in decision-making activities and the incorporation of local knowledge systems in management processes". Fabricius & Collins (2007 p 84) consider the aim of CBNRM to empower communities to manage their own resources without permanently damage, deplete or degrade them. Campbell & Shackleton (2001 p 88) have another take on what makes a successful CBNRM; "systems where stakeholders, particularly local people, have a positive attitude towards CBNRM, and sustainability appears to have been achieved"

When defining success, most research clearly departs from a wide and general objective. Despite formulating it in different ways, it is sound to say that the core values of the definitions of a successful CBNRM are the same:

- local management,
- local economic development
- sustainability in management of the natural resources.

Interestingly, only a very few authors depart from the country's programme objectives that are given as an example in their article, and evaluate their outcome to see whether it is delivering the goals set up.

4.1.2 Required elements for success

The literature shows that part of why CBNRM fails is that the government is reluctant to devolve sufficient powers to the communities (Brian & Weaver 2009; Ribot 2003, 2004, 2006; Measham & Lumbasi 2013; Oyono 2004; Mbaiwa 2004; Brockington 2008; Hutton et al 2005) and that the power that is transferred, is often transferred to various unaccountable local bodies (Ribot 2003, 2004; Shackleton et al 2002; Meshack et al 2006) which threaten local equity and the environment. For instance, donors often sideline elected local authorities because of donors' general lack of confidence in them (Ribot 2003). The lack of power on a local level affect, for instance, the authority to deal with raiding wildlife – which in turn affect the ways the many human-wildlife conflicts are dealt with –

(Shackleton et al 2002; Boudreaux & Nelson 2011). Moreover, many management decisions like for example when to harvest, are still taken by the central government (Jones & Weaver 2009) and the locals are, in the forest sector, most often only given the power to allocate commercially irrelevant use for products like for example non-commercial firewood instead of the revenue-rich commercial right to exploit the forests. By controlling the amount of space over which local authorities can exercise their power, it becomes possible to control the extent of the undertaken decentralisation. (Ribot 2006) Many central governments are thus de facto – despite rhetoric to the contrary – managing the locals and continue to drive the NRM agenda. Consequently, CBNRM is by many seen as a way for the government to motivate local actors to carry out new environmental management responsibilities that meet government revenue or conservation interests, rather than local livelihood needs (Ribot 2003, 2004; Shackleton et al 2002). Additionally, the intervening high levels of government leads to compromised applications that undermine both the integrity of participation, and the effectiveness of the conservation programmes (Measham & Lumbasi 2013; Meshack et al 2006). Another issue presented in previous research is the unclear and unstable institutional environment, in which institutions claim overlapping authority over land and natural resources (Jones & Weaver 2009; Campbell & Shackleton 2001; Measham & Lumbasi 2013; Shackleton et al 2002; Fabricius & Collins 2007; Oyono 2004). Low coordination and participation between institutions such as local and national, and various stakeholders are also seen as obstacles to a successful CBNRM (Fabricius & Collins 2007). Another issue is the misappropriation of funds and misappropriation of expected profit (Oyono 2004; Mbaiwa 2004; Brockington 2008), which according to Oyono (2004) could be dealt with through the implementation of a monitoring system.

Important elements of CBNRM for success are given in the literature as well. These are that policy, legislation and practice should be rooted in local needs (Jones & Weaver 2009) also because national level enforcement is more effective when it complements local institutions moral economy, for which reason a bottom-up approach is preferable according to Hutton et al (2005). This would be achieved through increased broad based participation in local public decisionmaking, downwardly accountable and representative authorities (including, according to Ribot 2003, non-electoral accountability measures) with meaningful discretionary powers (Ribot 2003, 2004, 2006; Shackleton et al 2002; Campbell & Shackleton 2001). Participation in decision-making is important in order to mitigate the unequal power relation between the outsiders (i.e. NGO's, scientists etc.) who develop the policies and the local population, and thereby negotiate and implement a form of hybrid (Blaikie 2006; see also Meshack 2006). Moreover, Fabricius and Collins (2007) suggest that for a successful participation formalised decision-making structures with clear constitutions and codes of conduct, and clearly defined, legitimised conflict resolution procedures is needed. Sufficient powers and authority must, according to the literature, be devolved to the local level (Jones & Weaver 2009; Ribot 2003; Campbell & Shackleton 2001; Nelson & Agrawal 2008; Oyono 2004; Nunan 2006; Sebele 2010; Brockington 2008; Virtanen 2003). Shackleton et al (2002) goes further and argue that transferring authority directly to disadvantaged people tends to be more responsive to local needs, than those that allocate control to higher levels of social organisations, such as local government. Related to success factors transparency and accountability, is a low level of corruption and a functioning rule of law at a national and local level, which is also by i.e. Oyono (2004) and Nelson and Agrawal (2008) seen as beneficiary for a successful CBNRM programme. Ribot (2004) emphasise the need for appropriate electoral codes and laws that transfer executive, legislative and judicial powers.

The role of traditional authorities is discussed briefly in some of the literature. Fabricius and Collins (2007) write that governance structure must be legitimised and accepted by traditional authorities as well as community members etc. thus giving them a role as a stakeholder. Campbell and Shackleton (2001) argue, similarly, that it is vital to recognise the importance of traditional leaders. Commitment from national- and local level politicians is needed in order for CBNRM to succeed (Boudreaux & Nelson 2011; Andersson et al 2004; Sebele 2010). But commitment is not enough; at the local level capacity building, training in managerial skills, and building an understanding of what CBNRM actually is, is needed (Mbaiwa 2004). According to Andersson et al (2004) sufficient regulatory powers are required for local politicians' to invest their time and resources into CBNRM activities, since only if they reap political and/or financial rewards from doing so, will they participate actively in a decentralised NRM policy. However, one can argue that financial benefits as an incentive to decentralise is just as much an incentive not to. The financial value of the natural resources when directly controlled by the state and carried out on community lands amplifies incentives to maintain control and to resist devolutionary reforms (Nelson & Agrawal 2008). The outcome of CBNRM is, again, strongly conditioned by the institutional incentives facing political decision-makers (Nelson & Agrawal 2008).

Incentives are needed for the locals as well; they too need incentives such as socio-economic benefits to get involved and be truly committed to the programme (Sebele 2010; Nunan 2006; Thakadu 2005; Hutton et al 2005; Mbaiwa 2004; Measham & Lumbasi 2013), and it is especially important that the benefits outweigh the many costs related to the programme (Thakadu 2005; Sebele 2010; Virtanen 2003; Meshack 2006). An equal distribution of the benefits is therefore of great importance (Thakadu 2005; Virtanen 2003; Meshack 2006) as it could contribute to a greater acceptance of the programme by showing that the benefits outweigh the locals costs. Consequently, the immediate needs at the village levels, such as poverty alleviation, empowerment, security etc. must be addressed. (Thakadu 2005; Nunan 2006)

Elements for success	Non-favourable elements
Policy, legislation and practice rooted in local needs	Lack of devolved power
Transparency	Power to unaccountable bodies (local authorities sidelined by donors)
Participation in decision-making	Central government <i>de facto</i> drive the NRM agenda • recentralising while decentralising
Downwardly accountable authorities	Compromised applications undermine integrity, participation and effectiveness of programmes
Representative authorities	Unclear and overlapping mandates between institutions unsatisfactory coordination between institutions
Meaningful discretionary powers to local level devolution to the lowest appropriate level	Unequal power relations
Low level of corruptions and functioning rule of law legal recognition for local organisations legal protections for organising, lobbying and filling suit appropriate electoral codes and laws that transfer executive, legislative and judicial powers.	Misappropriated funds and returns
Commitment from national- and local level politicians: sufficient regulatory powers political and/or financial incentives/rewards needed	Lack of community involvement and participation
Local level:	Elite capture
Incentives for locals, i.e. socio-economic benefits • benefits outweigh the costs • equal benefit distribution	Absence of participatory culture
Formalised decision-making structures with clear constitutions and codes of conduct	
Clearly defined and legitimised conflict resolution procedures	
Recognising the importance of traditional leaders	

Table 2: Summary: Elements of success and failure in previous literature

In addition to the literature of a more evaluative nature, there is an extensive literature of frameworks, approaches and theories regarding NRM and commonpool resources (CPR). Much of it concerns resource use and management institutions under the influence of markets, for instance there is a wider agreement that increasing integration with markets usually has an unfavourable impact on the management of CPR, especially when roads begin to integrate distance resource systems and their users with other users and markets, as subsistence users are likely to increase levels of harvesting since they can now exploit natural resources for cash income as well (Chomitz, 1995; Young, 1994 in Agrawal 2001). Yet, the majority of research concerns the role of the state and overarching governance structure, as this is considered central in the functioning of CPR (Agrawal 2001 p1656). For example, Clement (2010) develop a framework that highlight the need to simultaneously consider institutions, the politico-economic context and discourses across governance and government levels, and draws attention to the

role of power distribution at multiple levels in institutional design and performance. Blomquist et al (2010) framework focuses on the process by which institutional arrangements have come about and might change further. Bartley et al (2008) develop an "institutional mediation" approach in which they emphasise the "nestedness" of rules and highlights the role of institutional incentives, contradictions and complementarities in shaping how actors navigate decentralisation reforms.

4.2 Perspective I: self-organising CPR's

The perspective in "Governing the commons" (1990) challenges models that are representations of theory of collective action. These are for instance "the prisoner's dilemma game", "the tragedy of the commons" and "the logic of collective action", and that most commonly influence policy analysts in focusing either on centralisation – suggesting increased central control – or privatisation – proposed by those believing that too many regulations are the problem (Ostrom 1990 p 2ff). Ostrom, however, opposes centralisation as well as privatisation in the models of collective action and creates an alternative solution, arguing that neither the government, nor the market, can exclusively create structures for a long term, sustainable management of common-pool resources (CPR). She presents a game in which the citizens – in her example herders – themselves can make a binding contract to commit themselves to a cooperative strategy that they, themselves, will set up where the appropriators equally share the usage and costs of the natural resources (Ostrom 1990 p 15). They in addition need a private agent that take on the role of enforcer, who searches for methods to settle differences. The monitoring of making sure the rules are being followed will then be taken over by the appropriators themselves, avoiding any principal-agent problems with the enforcer. (Ostrom 1990 p 16) This fifth game is used as a different way to think about the mechanisms that individuals may use extricate themselves from common dilemmas (p 18).

The study is based on a CPR situation that occurs when appropriators (defined as providers and producers) have mutual interests in common-pool resources (defined as resource systems and resource units). This leads to many CPR problems such as appropriators facing temptations to free-ride, shirk or otherwise act opportunistically, and many decisions have to be made to overcome them. These decisions are based on benefits and costs and therefore contain much uncertainty like lack of knowledge, the resource system, external effects such as a rainfall etc. If there are strong norms against opportunistic behaviour, the appropriator will be less wary of the danger of opportunism. These norms not only constrain the CPR problems, but can also serve as cost reducing of monitoring and sanctioning. (Ostrom 1990 p 33)

Returning to the previous discussion on success and failure, the success of the appropriators depends on the capabilities to solve individual and collective problems.

It also shows what factors will increase the initial likelihood of self-organisation, enhance the capabilities of individuals to continue self-organised efforts over time, or exceed the capacity of self-organisation to solve CPR problems without external assistance. (Ostrom 1990 p 29) The good solutions to overexploitation and resource management thus do not come from "outside".

Based on her field studies, she creates a list consisting of eight criteria with design principles for long-enduring CPR institutions (*Table 3*).

1. Clearly defined boundaries

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.

2. Congruence between appropriation and provision rules and local conditions Appropriation rules restricting time, place, technology, and/or quantity of resource units are related to local conditions and to provision rules requiring labour, material, and/or money.

3. Collective-choice arrangements

Most individuals affected by the operational rules can participate in modifying the operational rules.

4. Monitoring

Monitors, who actively audit CPR conditions and appropriator behaviour, are accountable to the appropriators or are the appropriators.

5. Graduated sanctions

Appropriators who violate operational rules are likely to be assessed graduated sanctions (depending on the seriousness and context of the offence) by other appropriators, by officials accountable to these appropriators, or by both.

6. Conflict-resolution mechanisms

Appropriators and their officials have rapid access to low-cost local arenas to resolve conflicts among appropriators or between appropriators and officials.

7. Minimal recognition of rights to organize

The rights of appropriators to devise their own institutions are not challenged by external governmental authorities.

For CPRs that are parts of larger systems:

8. Nested enterprises

Appropriation, provision, monitoring, enforcement, conflict resolution, and governance activities are organized in multiple layers of nested enterprises.

Table 3: Ostrom's (1990 p 90) design principles for long-enduring CPR institutions

These design principles constitute the foundation for her framework that she create, where she points out what variables in the internal and external world of institutional choice should be examined to understand the process of institutional collective action and changes in rules. The rules in the CPR situation differ from laws and national regulation. In the CPR situation, "rules provide stability of expectations, and efforts to change rules can rapidly reduce that stability" (Ostrom 1990 p 53f). An absence of national rules and laws does not mean that there are no rules at the local level; local appropriators may develop working rules over time, which may lead to effective and sustainable management of resources, and affect what strategies appropriators believe is available to them and the result outcomes (Ostrom 1990 p 55).

4.2.1 The process of institutional action and changes in rules

In Figure 3, first column, Ostrom's (1990 p 185ff) criteria for credible commitment to follow rules are outlined, as well as criteria for commitment to follow these rules. The strategy rests on the idea that "where individuals follow rules and engage in mutual monitoring, reinforcing institutional arrangements and individual strategies bolster one another so as to maintain enduring patterns of consistent, but not perfect, rule-following behaviour" (Ostrom 1990 p 187).

This however does not explain how some appropriators overcome and others do not overcome collective provision of new rules. Ostrom (1990) departs from the existing theories that are focusing on internal variables influencing the institutional-choice situation, which are *expected benefits*, *internal norms and discount rate*, and *expected costs*. She then adds external variables (see *Table 4* text in bold) to these. These variables must be included in any attempt to explain and predict when appropriators using small-scale CPRs are more likely to self-organise and effectively govern their own CPRs, and when they are more likely to fail. The CPR situation mainly has two possibilities: to change the rules or to keep them.

Information about net benefits of proposed rules				
Number of appropriators				
Size of CPR				
Temporal and spacial variability of resource units				
Current conditions for resource units				
Amount and type of conflict that has existed in the past				
Availability of data about current conditions and historial appropriations patterns (1-6)				
The particular status quo rules				
The Particular proposed rules				
Information about ex ante costs of transforming SQ rules				
Number of decision makers				
Heterogeneity of interests				
Rules in use for changing rules				
Skills and assets of leaders				
Proposed rule				
Past strategies of appropriators				
Autonomy to change rules				
Information about ex post costs of monitoring and enforcement				
Size and structure of CPR				
Exclusion technology				
Appropriation technology				
Marketing arrangement				
Proposed rules				
Legitimacy of rules in use				
Evaluating shared norms and other opportunities				
Appropriator live near CPR				
Appropriators involved in many situations together				
Information made available to appropriators about opportunities that exist elsewhere				

Table 4: Variables most likely to affect decisions about continuing or changing rules (Ostrom 1990)

Before the change of rules each individual seeks answers to the questions "how will the value of the resource change?", "how variable is the flow of resources?", "which differences in quality will occur?", "how will the resource system regenerate?" and "will there be more, same or less conflicts after the change of rules?" (Ostrom 1990 p 196). The situational variables in *Table 4* (non-bold variables) affect the answers to those questions, and will in turn affect whether the individual will see the change in rules as profitable or not.

Variables (see *Table 4*) for the information about the cost of a change in rules also affect the decision. "If the appropriators can profit from a change in rules, the transformation costs are expected to be lower. Monitoring and enforcement costs occur e.g. for courts or police to enforce rules, and so it must bring a higher benefit than expected without monitoring and enforcement" (Ostrom 1990 p

198ff). The weighting of benefits and costs, are then found highly dependent on the norms.

Despite criticising increased control by the government, Ostrom (1990 p 212ff) acknowledge that indifferent and facilitative regimes can have different effects on the likelihood that appropriators will adopt new rules and enhance joint outcomes. It can make a substantial difference whether the local appropriators can supply their own institutions, or whether they are dependent on external authorities to solve their problems (Ibid). Although a facilitating government may be advantageous, an indifferent government to CPRs in remote areas are still perfectly able to succeed under certain conditions. The role and result of the government can therefore be said to differ, but a too facilitating government imposing uniform rules throughout a jurisdiction (which is likely) rather than specialised rules applying to localities within a jurisdiction makes CPRs less likely to succeed (Ostrom 1990 p 214). Similarly, a too controlling government leaving individuals without self-organising and self-governing authority are stuck where their problems are given to them and the best they can do is adopt strategies within the bounds that are given to them (Ostrom 1990 p 54). Hence, the process of CPR starts in different places; the government need to let go of the power to manage natural resources for the local level. The process is after that only concerned with the local level, and their development towards managing their own natural resources. The process towards successful CPRs could be illustrated the following way (see Figure 3).

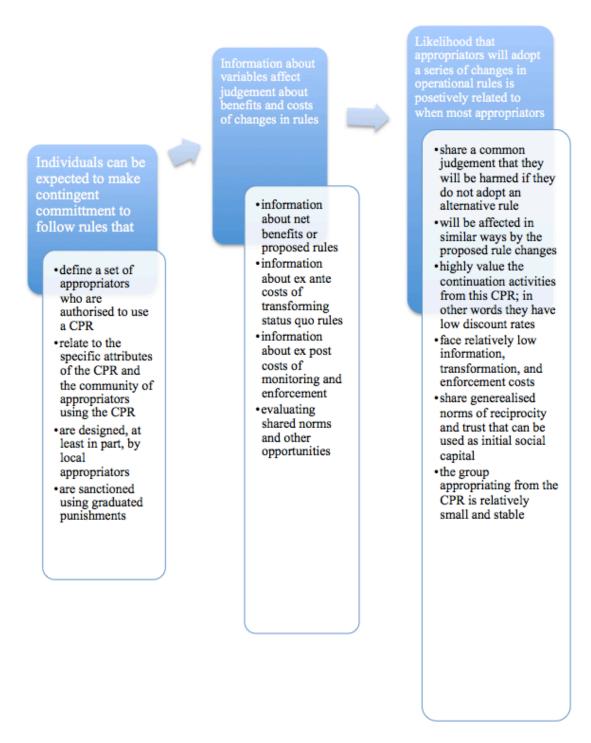


Figure 3: Process towards institutional change and self-government

In conclusion, Ostrom argue that in smaller contexts, the participants should be able and are better at establish their own rules under which they can manage their resources. This is due to the fact that no rules can work everywhere, but have to be fitted to local conditions. "Individuals follow rules and engage in mutual monitoring, reinforcing institutional arrangements and individual strategies bolster one another so as to maintain enduring patterns of consistent, but not perfect, rule-

following behaviour" (Ostrom 1990 p 187). When individuals will find it advantageous, credible and safe to commit to rule compliance and mutual monitoring depends on internal and external variables to overcome the problems of collective provision of new rules. Thusly, if collective action can be achieved, it will be more effective and increase the returns from the appropriation efforts.

4.3 Perspective II: traditional governance

In this perspective, democracy can be seen as an idea that has been reduced from the substantive to the procedural, thus making it a "small idea" not very likely to bring with it an improvement of the human condition (Comaroff & Comaroff 2012). The politics, according to this perspective, is moving elsewhere i.e. to global processes and institutions, into the corporate world, NGO's etc. The export of modernist Euro-American models to the global south is in their view problematic, especially since Comaroff and Comaroff (2012) argue that African cultures have their own theories and practices of politics, personhood, power and representation. Cultural transitivity of the concept "democracy" should not be presumed in the way it is today. They argue that African countries are given the option to choose between an un-African political order in which "autonomous, individualized, rights-bearing citizens whose primary political being is congealed in the exercise of the ballot" and an "indigenous" order "usually characterized as anti-modern, ethnically based, patriarchal, traditionalist, customary, communalist, clientalist, and authoritarian – and/or, more insidiously yet, populist". (Comaroff & Comaroff 2012 p 113)

Comaroff and Comaroff (2012) conduct a case study in which they use a Botswanan chiefdom – the Tswana people – to explain that they traditionally, themselves, put great emphasis on what we would call "good governance". The chiefs in the traditional society were responsible for all aspects of the collective well being and everything in the public domain – political, judicial, administrative, material and spiritual. (Comaroff & Comaroff 2012 p 116ff) The authors also explain why Botswana experienced issues implementing and making the "Western" institutions part of the society: the national elections that were held, were to the people in the chiefdom seen as procedural democracy based on periodical voting, threatening to confine public involvement to every five years, in comparison to their own substantive ideologies of sovereign authority, legitimacy and accountability where politics is everyday life (Comaroff & Comaroff 2012 p 128ff). Thus, a more indigenously rooted version of democracy than the liberal "Euro-American" version might be needed. The authors make this case for Botswana, the country they studied most intensively, and argue that "democracy" has to become context specific: they criticise the taken-for-granted western political practices and institutions and argue that the critique that arose in the Botswana context "spoke of a specifically African alternative, one that demanded not less popular sovereignty but more, not less accountability but more, not just

choice but a public culture of criticism. All of which the global north has been moving steadily *away* from in recent times" (Comaroff & Comaroff 2012 p 130).

Both of the alternative perspectives thus depart at the same level in their analyses. They also put great faith on locals' ability to manage themselves – either through self-organising units, or through traditional societies and their indigenous structures. The institutions could, from these perspectives, be created by the locals on the locals' own terms, or are in some places already in place. Both perspectives seem to be reactions to the idea that all institutions need to be implemented by the state.

5 Changing theoretical perspectives

To examine the research questions, the chapter begins with a discussion on the Western perspective as a paradigm resting on a common theoretical ground. Thereafter, I will discuss success of CBNRM from the different perspectives, followed by a discussion of the influence of policy, governance, power and context on the perception of success.

5.1 The Western perspective – a common theoretical ground

Drawing on what the previous literature on CBNRM perceive as non-favourable elements for the programme's success, and what elements are important for success, some findings must be given attention. Firstly, the magnitude of the concept CBNRM becomes clear when dimensions like *conservation*, *democratisation*, *poverty alleviation* and *economic development* — which are all in themselves major fields — now are being squeezed into one single concept. Conservational interests are often conflicting with those of economic development when for instance bio-diversity has to compromise with the forest sector. Evidently, the many dimensions of the concept are making the actions of theorising and practice of CBNRM very difficult to handle.

Scrutinising the earlier literature on the subject, it is evident that there are certain thinking patterns for how to deal with the field, and one can therefore argue that a version of Kuhn's (1970) paradigm does in fact exist. The focus in the literature has so far primarily been on democratic decentralisation and on building institutions top down (see table 1 for summary). Downwardly accountable institutions, transparency, functioning rule of law, devolved powers etc. are by all authors suggested important to make the programmes more successful (or the lack of these elements are seen as non-favourable elements). CBNRM is a sort of decentralisation of NRM that can be defined as "any political act in which a central government formally cedes powers to actors and institutions at lower levels in a political-administrative and territorial hierarchy (Ribot 2004 p 9). It is therefore, of course, in the nature of decentralisation to take place downwards from the top. Despite promoting the need for capacity building, and training in the concept at a local level - these are all reforms that should be made by central authorities. There is little emphasis on context - apart from some recognition of the traditional leaders' importance – and this in turn gives the impression of an implicit advocacy of standardisation and blueprint solutions. This is true for almost every article, apart from Blaikie's (2006) who explicitly argue against "legislation and blueprinting". The lack of context leads to another of the main issues with the current way of discussing CBNRM; that (Western) institutions are taken for granted. It is assumed that on both a national and a local level, institutions similar to ours are in place. It places so much emphasis on these institutions, that without them in place, success simply cannot be achieved. Much of the criticism towards the programme is regarding the (mal-)functioning of these institutions, and many of the issues following the previous literature lies in the institutions.

Many authors suggest a bottom-up approach as a solution to reach success where policy, legislation and practice are rooted in local needs through the locals' participation in decision-making. At the same time, however, they are still relying on Western models of governance.

The noted paradigm in the research on CBNRM has the consequence that very few initiatives are seen as successful because of the inherent issues in basing the discussions on Western democratic decentralisation that is not rooted in the African context. The previous research, thus, rests on a common theoretical ground, which is problematic since the "failures" of the programmes are perceived as failures because of the paradigm. It is therefore of interest to explore different perspectives that can contribute to the knowledge and understanding of CBNRM.

5.2 Success of CBNRM from different perspectives

When previous research describes CBNRM, the choice of word is noteworthy: it is regularly described as a "failure". Some authors (i.e. Blaikie 2006) argue that CBNRM is in fact *failing* and therefore should be abandoned for other ideas. Others seem to think of it as, despite referring to it as a failure, something that is in fact unsuccessful but with some reforms can be made successful. If looked upon from a steering perspective, where "the steering of structuring, for example, can be oriented towards the creation of an already existing unit, the move of a unit to another department, or the restructuring of a unit" (Lundquist 1987 p 159) the "failure" of CBNRM could be regarded as an implementation deviation – that with some fine-tuning – can be corrected. For the selection of articles I chose some African authors to see whether their handling and evaluation of the CBNRM programmes differed from that of Western authors. Perhaps not very surprising it did not differ significantly, probably since they use Western perspectives for their discussions, and in general are highly influenced by other Western universities. In this respect however, the latter way of thinking about CBNRM (as something that can be corrected) seems to be more prominent among the African authors. Although acknowledging issues within the programmes, their case studies are more often sided by optimism for the future of CBNRM and a "how can we move forward with what we have-attitude". The usage of "failure" is highly related to the concept "success", and it is notable that many authors regard programmes not

achieving the main objectives of CBNRM as failures, and to a large extent therefore ignores the "smaller" successes and objectives that have been accomplished such as increased (if only little) autonomy in decision-making. In the chain of steering (Lundquist 1987 p 170) Ostrom (1990) and Comaroff and Comaroff (2012) are placed somewhere else, and cannot be regarded as a deviation therein. The perspectives they offer are different, which in this context may be beneficial.

As argued in section 4.1.1, successful management according to the previous research includes local management, local economic development and sustainable management of the natural resources. Interestingly, only a very few authors depart from the country's programme objectives that are given as an example in their article, and evaluate their outcome to see whether it is delivering the goals set up. This could partly be a result of a lack of monitoring of the programme, which is very costly and difficult and would require an additional evaluation. Despite this, I believe the most essential reason for using a general objective instead of the country's, is the literature's tendency to exclude the context and deny the complexity and diversity of the programmes. Most importantly, no attention is explicitly given to how institution building needs to take place. Given this, there ought to be many ways to achieve success.

Many CBNRM programmes are in progress, and based on these programmes one can argue that they from Ostrom (1990) and Comaroff and Comaroff's (2012) perspectives can be regarded as relatively successful at the very basic level since the programmes do in fact give the locals more freedom to decide over the natural resource management, and in some places (i.e. central Africa (Binot et al 2009 p 23)) allow them to base their *communities* on traditional structures.

A successful CPR is according to Ostrom (1990 p 15) "institutions that enable individuals to achieve productive outcomes in situations where temptations to free-ride and shirk are ever present". The perspective proposed by Comaroff and Comaroff (2012) does not have an explicit definition of what success is, probably since it is not concerned with NRM in particular. The standpoint is more of an argumentation against the Euro-American democracy, and towards a model more inclusive of traditional African structures. It is therefore difficult to say whether the CBNRM programme can be seen as successful from this perspective, other than whether it is based on traditional structures or not.

In general, institutions that enable individuals to achieve productive outcomes in situations where temptations to free-ride and shirk are ever present, are somewhat in place. The institutions put in place according to the Western perspective, might in some places indeed hinder temptations to free-ride and shirk. The question, though, is how productive these systems are. The many problems in CBNRM today indicate that they are not particularly productive. Correspondingly, traditional African societies are incorporated into – although in varying degree – CBNRM programmes. However, most often this incorporation is not working but are rather characterised by complex and conflicting mandates (Campbell & Shackleton 2001 p 100). CBNRM can thus not be seen as entirely successful from either of these alternative perspectives in general terms. This

however, does not mean that there cannot be elements of success in the programmes:

Departing from Ostrom's (1990 p 90) eight design principles for longenduring CPR institutions, some of the principles are already in place. The boundaries for what rights individuals and households have to the resource and the boundaries of the CPR itself is defined, and on a superficial level in some places there is a congruence between appropriation and provision rules and local conditions and most appropriators affected by the operational rules can participate in changing them as well. The communities are also relatively free to run their own institutions, and are monitored. (Ostrom 1990 p 90ff) This will be illustrated in the following sections that will provide a deeper understanding of the programmes.

Consequently, taking all of the above into account, if the theory component is replaced with another perspective the policy- and normative recommendations will be different. The question that follows then is how Ostrom (1990) and Comaroff and Comaroff (2012) can contribute to CBNRM.

5.2.1 The influence of policy and governance

Local bodies are, according to the Western perspective, meant to constitute democratic, downwardly accountable local authorities that have implemented from the top. Already at this level in the Western perspective many problems, as previously mentioned, have occurred where institutions have been created from above, without any local ties. Many of the elements for success and failure at the local level are in the hands of the government, in particular the national one. Meaningful discretionary powers devolved to the local level, functioning rule of law with appropriate electoral codes and laws transferring executive, legislative and judicial powers, formalised decision-making structures with clear constitutions and codes of conduct between local and national level, and clearly defined and legitimised conflict resolution procedures between the two levels are all emphasising the need for a committed national level government. As has been illustrated in the case studies and evaluations of CBNRM programmes in Sub-Saharan Africa, the central authorities are for several reasons rarely this committed to the programme, thus actively or passively letting it fail. Given the Western perspective's predilection for blueprinting and emphasis of central authorities, the needs specific to the local context are often sidelined. If, instead of using a standardised model from the West where the top level is absolutely decisive of the success or failure of a CBNRM programme, hence incapacitating both the nation in creating their own institutions, and the locals by making it something that needs to be steered from above, we could shift the perspective downwards to a local level where, under the right circumstances, common-pool problems sometimes are solved by voluntary organisations rather than by a coercive state.

The role of the state would still be prominent, as it could act as a hindrance for successful local CPR governance in not giving participants (i.e. locals) the autonomy to change their own institutional structures. The central government might even prevent participants from making constructive changes, and groups could also suffer from non-beneficial incentive systems that are themselves the results of central government policies. (Ostrom 1990 p 20f) These problems are of course similar to the ones in the Western perspective, however, as Ostrom (1990 p 21) assert, "as long as analysts presume that individuals cannot change such situations themselves, they do not ask what internal or external variables can enhance or impede the efforts of communities of individuals to deal creatively and constructively with perverse problems such as the tragedy of the commons". Moreover, the emphasis put on the central government is much less then in the Western perspective, making these perspectives less susceptible to corrupt central government, or non-functioning governments in general. There is of course a similar risk with traditional authorities where leaders have been corrupt, and even agents for the previous regimes (e.g. Fish River, Tanzania, Zimbabwe) (Campbell & Shackleton 2001 p 99).

Ostrom (1990) and the Western perspective thus depart at the same level in the process towards successful local management – the role of the central state. Ostrom (1990 p 210ff) also consider the type of external political regime under which the CPR is operated. From there, the two perspectives take different paths, where the Western perspective continue the emphasis on state involvement in creating institutions for the locals, and Ostrom (1990) emphasise the ability of locals to self-organise. Comaroff and Comaroff (2012) in turn stress that there is an African alternative to the Western perspective, yet for it to function in CBNRM today, it too needs to be given a possibility to govern and implement its own policies.

To a certain extent, this can be said to be the case in for example Namibia (that is also often seen as a more successful example in CBNRM from the Western perspective). Here the communities are free to set their own boundaries for their communities and the members have the opportunity to participate in decision-making. They are fairly free to run their institutions and the appropriation rules are somewhat related to the local conditions. The institutions however are not "their own" and the programmes can therefore only be relatively successful, and this only at a very superficial level. The so called "local convention" in West Africa is frequently implemented as part of CBNRM, and can be defined as "agreements, written or oral, negotiated between two or more groups of actors, defining management and use rules for land and/or natural resources found in a given area" (Binot et al 2009 p 44), and the convention does not have to involve any state actors. This West African case proves that even within current structures it is possible for locals to develop rules and avoid conflict without state institutions (although this method has had mixed results).

In Comaroff and Comaroff's (2012) example on how traditional authorities have their own type of "good governance", the chiefs of the Tswana chiefdom were responsible for all aspects – political, judicial, administrative, material, spiritual – of the collective well-being. The rural ideology of good government

was less concerned with the *content* of the public affairs than with the *means* by which they were managed, as the responsibility of the sovereign "embraced the fluid responsibilities of time, space and situation". (Comaroff & Comaroff 2012 p 117ff) Chiefs were expected to rule with the people, and aspects like participation and the consultative aspect of the public sphere, the proportional relationship between the performance of any ruler and his legitimacy, as well as the fusion between civil society and the state were stressed as important in the chiefdom. The chiefs held regular meetings of councils of headmen, summoned public assemblies from which policies emerged reflecting the public views, they ensured that the hierarchy of courts did not favour rich over poor and royals over commons etc and they redistributed food and other requisites in times of need. Some chiefdoms' rulers were even recalled by the legislation they introduced. (Comaroff & Comaroff 2012 p 118f) Comaroff and Comaroff (2012 p 118ff) argue that the success of the chief was numbered in the amount of observable achievements like improvements. These improvements however, hinged on the cooperation of the people, which in turn hinged on the degree to which he was seen to measure up to the publics' ideal of good governance. Public meetings were not only meant for consultation, but also served as forums where the rulers were subjected to debate and evaluation. There, in addition to this, existed an incremental scale of sovereign authority, in which the rulers rights to regulate the instruments and institutions of governance became more inclusive (and exclusive) as the legitimacy of the ruler increased. (Ibid)

5.2.2 The influence of power

Given that the state is less central in the perspectives by Ostrom (1990) and Comaroff and Comaroff (2012), one of the many problems with a high level of state authority control is avoided: for example, in most places local hunting quotas are established by national wildlife authorities, government institutions are in charge of financial accounting and receive a major share of the income generated from wildlife. Yet, one cannot necessarily assume that the state is a homogenous entity with one internally consistent set of goals, and the above - current arrangement therefore becomes problematic. In countries such as Zambia and Zimbabwe, access and use of natural resources like wildlife and agricultural land was turned into a controversial political issue, resulting in a reform standstill in Zambia, and contradictory development and conservation policies in Zimbabwe. (Virtanen 2003 p 182) If the locals would gain more control over resources and be able to self-organise to manage them, this could be avoided. In the current CBNRM programmes, access is given to actors based on certain rights, whereas control is vested in political-legal institutions (Virtanen 2003 p 182), so for this to be possible, the *actual* control over the resources must be moved to the local level. In what the "local level" and "communities" should be based must then be established.

In many Sub-Saharan African countries, the communities have not been created by themselves but by authorities, and for this reason natural resource boundaries and local territorial boundaries often do not coincide (Blaikie 2006 p 1953). Blaikie (2006 p 1953) inquire "to whom do the wildlife of the Kalahari or the fish of Lake Malawi, which both migrate across territorial community boundaries, belong, and whose responsibility are they?" and further argue that without an understanding of the existing management arrangements, inept attempts to territorialise common property jurisdictions often are made. This is however not the case in Namibia, where communities themselves create management units that they then register with authorities (NACSO). Ostrom (1990) and Comaroff and Comaroff (2012) are much relevant in this case: Namibian communities are self-created entities, relatively small in size, the appropriators live near the CPR, and they are involved in many situations together. Many of the communities in Namibia have grown out of traditional villages where traditional leaders still play an important role in the community. If CBNRM was to base the communities in existing ones, where norms and practices are already in place, it might become more successful.

Villages in Central Africa illustrate how the traditional rulers still play an important role, and how old village rules prohibit certain areas and/or species from being harvested, with the village chief working as the enforcer of these rules (together with magic). Similarly, in West Africa the traditional leaders have administrative rights over the community land, and often the use of specific resources is forbidden within the community. The systems of tenure and use often exist for specific natural resources such as fishing systems and, for example, the "master of water" in Mali. Some of these traditional societies have persisted even though the government has imposed rules – leading to new power structures – on them. (Binot et al 2009 p 23f) Despite the presence of traditional chiefdoms, their actual possibilities for impact are limited: Murphree and Taylor (2009 p 109) note "their tenure rights are weak and they have no clear rights to the economically valuable resources which were historically theirs. They lack the security required as an inducement for conservation investments in the future. Regulations preclude the opportunity for them to experiment with the use of their resources".

Despite the lack of actual power devolved to traditional authorities in West-and Central Africa, they were given a relatively large amount of power in Zambia's ADMADE programme: traditional authorities were given a prominent role in the local wildlife management authorities, and although most technical and capital input were directed through government channels, the traditional chiefs in fact control the funds. Still, Virtanen (2003 p 186) does not see this as a sole solution to the problem of local representation, since some headmen misused their authority to for example secure more power and resources for themselves (Ibid, Sebele 2010 p 143). However, Virtanen (2003) also derives this to the colonial rule, which made traditional authorities accountable more to the colonial administration, and thus compromised the existing accountability relations of the chiefs and elders downward to their communities. (Ibid) The colonial regime shifted the traditional authorities accountability upwards. Yet, as I argued earlier,

these "traditional authorities" are not necessarily traditional as such. A shift towards the more indigenous alternative should perhaps exclude these colonial versions and moreover, the fundaments of Ostrom's (1990) framework ought to dampen the influences of autocratic leaders.

5.2.3 The influence of context

Comaroff and Comaroff (2012) argue that Africans have their own theories and practices of politics, personhood, power and representation, and therefore, the cultural transitivity of the concept "democracy" cannot be presumed. This is in line with what I have previously argued; the Western perspective uses Western values and put little consideration to the country specific environment. Exporting modernist Western models to different settings, attempting to put in place Western democratic institutions has proven difficult, as illustrated by this case. Often failing in the institutions set up by the West, which can be derived to the lack of context (see i.e. Comaroff & Comaroff 2012), a more indigenous alternative could be needed for the success of the CBNRM programmes. Although the local government systems might have changed over the years, and chiefs in the traditional societies have been denuded of much of their authority, many of the chiefdoms still exist throughout Sub-Saharan Africa.

The role of traditional leaders in Sub-Saharan Africa is somewhat debated in the decentralisation literature of today. The most common way of discussing discussing) the involvement of these decentralisation/democratisation literature is that they should be taken into account in decentralisation undertakings. I however believe that context specific indigenous African structures may have more than that to offer for successful governance in decentralisation and CBNRM programmes. Indigenous ruling structures, that have previously worked in their specific context, are often dismissed as "anti-modern, ethnically based, patriarchal, traditionalist, customary, communalist, clientalist, and authoritarian - and/or, more insidiously yet, populist" (Comaroff & Comaroff 2012 p 113) and countries are for this reason left with the option of adopting an highly un-African political order "wherein the body politic is composed of autonomous, individualised, rights-bearing citizens whose primary political being is congealed in the exercise of the ballot' (Ibid). The African context thus differs from the one the CBNRM programmes are based on. This can for example be illustrated by the initiation of CBNRM in Botswana where the indigenous alternatives - successfully - were given a larger role, yet this was only during the mobilisation phase: during the start-up of the programme, officials requested deliberations on the matter in the traditional kgotla meetings. The reason for this was that the kgotla is seen as democratic, and the people's voices could be heard for consultations for the implementation of the programme (Thakadu 2005 p 200). Nevertheless, the kgotla was mainly used during the mobilisation face, and in the actual programme it is primarily used as a way to give an annual report, and to every second year elect board members (Sebele 2010

p 142). Due to the *kgotla* protocol, Thakadu (2005 p 204f) argue, it was difficult to use this forum for participatory decision-making since government officials are not allowed presiding over a meeting – this being the headmen's role – their role was limited to making a presentation and clarifying the specific matters under discussion. This serves as an example where the Western institutions did not work together with the indigenous, and so more methods of CBNRM could be found within the traditional society to avoid clashes between context and standardised models.

As has been established earlier, norms are of great importance according to Ostrom (1990). Using one of her variables – "transaction costs" – as an illustration, the norms that the individuals share concerning appropriate strategies when engaging in collective choice will affect transformation costs directly and indirectly:

"when individuals adopt confrontational strategies, for example, transformation costs rise sharply (...). When some individuals fear that others will attempt to organize minimal winning coalitions to impose costs on losers, that will affect their willingness to adopt changes that would reduce the inclusiveness of the rules to be used in the future. Thus, appropriators who share norms that restrain opportunistic behaviour can adopt rules that are less costly to operate than are the rules adopted by appropriators who do not share such norms". (Ostrom 1990 p 200)

Similarly, Comaroff and Comaroff (2012 p 116) argue, "while chiefdoms varied in size and in the minutiae of their institutional arrangement, the dominant features of their political organisation, cultures, and ideology were broadly shared". In many places, for instance Botswana, much of the citizenry was raised in the traditional society (Comaroff & Comaroff 2012 p 116), it is therefore also reasonable to believe that the chiefdoms not only share features *between* the chiefdoms, but that they share norms *within* them as well. On this account, shared norms are already in place that would restrain opportunistic behaviour. These norms have been developed over time within that particular group, so in order to take advantage of these existing norms, the communities in CBNRM might benefit from being based in indigenous groups. Although not particularly successful in Zambia, there is evidence that within the indigenous societies, there is a great emphasis on what could be referred to as "good governance".

The problem of sometimes combining Western models with indigenous ones could partially be explained through, as Ostrom (1990 p 184) argue, that the norms and the institutional capital have been destroyed because of the rules that have been imposed on them. "In a small-scale CPR people interact and communicate with each other, and they can therefore learn whom to trust, the effects of their actions on one another as well as the CPR, and how to organise themselves to gain benefits and avoid harm. When individuals have lived in such a situation for some time, and have developed shared norms and patterns of reciprocity, they posses social capital with which they can build institutional arrangements for resolving CPR dilemmas" (Ostrom 1990 p 183f). A move back

to this institutional capital based on shared norms could therefore make the programmes more successful and even erase some of the present issues, such as corruption, misappropriation, weak system for social control, lack of community involvement, and elite capture. Likewise, this could possibly be one reason for why the "local convention" in Central Africa has received mixed results, and why some traditional systems did not persist the new government systems.

Considering that the many issues in the present way of dealing with CBNRM can be derived from a lack of cultural understanding and an underestimation of the local people, it is useful to examine what Ostrom (1990) and Comaroff and Comaroff (2012) can contribute with to the understanding and development of theory and practice of CBNRM.

6 Conclusion

The literature of CBNRM today, is mostly occupied with discussing reasons for why the programmes are failing. The way this is done is based on the same underlying assumption – where Western models are meant to be applicable in the Sub-Saharan African context as well. Given that none of the programmes are considered as entirely successful, one wonders whether the underlying assumption is flawed? And, how could we understand and develop CBNRM in alternative ways focusing on the success of the programme?

It seems as though many of the issues following the previous literature lies in the institutions, which ought to mean that the real problem is that the African reality differs from the reality the models are/were made in. The flawed underlying assumption of the programme thus generates failure. A shift in theoretical perspectives that are more sensitive to the African reality could therefore increase the understanding of success in CBNRM. The perspectives that have been used in this study do just that. The perspective offered by Ostrom (1990) differs substantially in its way of dealing with CPR in comparison to the previous research's way of dealing with CBNRM. Ostrom (1990) argue that resources can be managed through self-organising locals, whereas previous literature argues that locals through top-down implementation of institutions can manage resources – the locals cannot implement them on their own. The Western perspective is based on an idea of the ideal democracy exported from the West, and emphasises democratic governance. A different take on democratic governance is proposed by Comaroff and Comaroff's (2012) perspective where the traditional structures and institutions are emphasised as an alternative way of local governance.

Despite the considerable differences in the three perspectives' way of dealing with NRM, the main definition of a successful CBNRM in previous literature can be used on all perspectives because of its width. It is therefore possible to develop CBNRM with these proposed perspectives. As argued, it is in the nature of decentralisation that it takes place top-down since the state normally holds the power and therefore must decide to devolve it to the local level. The previous literature's critique against the lack of devolved power is thus of interest even when changing the theoretical perspectives, and likewise influence the potential success of a programme. It is however clear that from the perspectives of Ostrom (1990) and Comaroff and Comaroff (2012) many of the other elements that, according to the Western perspective, are needed for successful CBNRM, that in many places are not there and therefore making the programme a "failure", are not considered as important from these two other perspectives. This is because Ostrom (1990) and Comaroff and Comaroff (2012) both depart from the idea that the people at the local level themselves can find ways of successful governance.

Yet, the programmes cannot be seen as particularly successful from the perspectives by Ostrom (1990) and Comaroff and Comaroff (2012) either, since the previous norms have been erased/oppressed due to the implementation of Western institutions. This is related to the great influence of donors (see i.e. Hutton et al 2005, Binot et al 2009) in the founding of CBNRM programmes since they are, as I have argued before, entrenched in Western decentralisation models. Although all of the models include some form of community involvement, the programmes are conceived abroad in collaboration with national government but disconnected from the local level (Binot et al 2009 p 23). Comaroff and Comaroff's (2012 p 128ff) explanation on why national elections did not work in Botswana proves this point: the elections were seen as procedural democracy instead of the traditional version where legitimacy, accountability etc. was part of the everyday life. One can therefore argue that the fundaments of the elements for success are in fact in place, but are hindered by ill-fitting Western institutions to develop further and become truly successful. Furthermore, given the many differences between the three perspectives, it is not entirely surprising that CBNRM is not successful from Ostrom (1990) and Comaroff and Comaroff's (2012) perspectives either, especially since the programmes are created based on the Western perspective.

The discussions on CBNRM are clearly in need of new perspectives in order to understand the success and/or failures of it. So how can it be developed to become more successful?

Greater local influence on policy and governance could develop CBNRM to become more successful, since the central authorities are often not as committed to the programme as the locals. The locals in most environments rely on the natural resources for their livelihood, and therefore have mutual interests in the resources. If the problems related to the CPR can be overcome, which Ostrom (1990) prove they can under certain circumstances, the resources can be managed sustainably with less government commitment. Moreover, research show that some traditional authorities are devoted to "good governance", yet models unable them to practice it. Despite the general opinion that traditional villages are corrupt etc. the rulers in the chiefdoms do not necessarily have an uncontested right to rule the people, but it is very much based on the actions of the ruler, who has to listen to the people (Comaroff & Comaroff 2012). It is therefore logical that the people have a reasonable amount of autonomy to change their own rules, which is important for CPR governance (Ostrom 1990 p 200). A highly centralised regime relies on the same operational rules in all locations within the territory (Ibid), which is one of the problems in countries' CBNRM today but should not based on the findings of Comaroff and Comaroff (2012) be a problem in some traditional societies. Nor will, according to their perspective, the problems of a corrupt regime (Ostrom 1990 p 200) be as prominent if CBNRM are based in traditional villages, because of their accountability methods. Devolving power to the local level, could also develop CBNRM to become more successful especially since the villages (based in traditional authorities or not) already share norms and traditionally have various regulations that are followed even with regards to the natural resources, which is the fundament of Ostrom's (1990) perspective. This further indicates that boundaries for what resources belong to which village, are already set before the Western institutions came into place. Systems for the usage of natural resources thus exist; sometimes they are based in traditional societies, but examples exist were they function similar to Ostrom's framework. The context proves important when Western institutions are applied to an African context. The *Kgotla* system is proof of this when the traditional system only worked in the initiation phase, but not during the actual programme because of the clash between the systems. The clash between the systems could also be the reason for why for example the traditional authorities did not work well in Zambia: they had been squeezed into a Western context (both by colonisers, but also in the implementation of CBNRM), and was not practising entirely according to its own model.

This study emphasises the importance of context and local structures. In smaller contexts, the locals are better at establishing their own rules for managing their natural resources, since rules must be fitted to local conditions (Ostrom 1990). For the development of CBNRM a shift is therefore needed where traditional leaders and/or structures (i.e. self-governing units) are not the ones "taken into account" in the Western perspective, but rather the other way around: traditional societies could possibly serve as a base and modern institutions be taken into account to function in a modern society? Locals should and may not be able to take over all decision-making powers, but they should be regarded as bigger stakeholders, and not only (which often the case with traditional leaders) as problems. Much of what is needed to make CBNRM successful departing from the Western perspective's definition is already in place, if not according to Western implementation models, and it could therefore be beneficial to use these perspectives as a foundation for the further development of CBNRM programmes. For this to be possible, however, all variables proposed by Ostrom (1990) needs to be in place, which they are currently not. Thus, instead of developing CBNRM according to the Western model, on the basis of current discussions from the Western perspective, the development could focus on developing conditions for locals to create self-governing CPR units according to Ostrom's (1990) perspective. Possibly, CBNRM should focus on creating these conditions instead of continuing building on democratic models according to the Western perspective.

The question of whether new institutions should be created or existing institutions should be developed is complex. Some of the traditional structures and authorities have already been destructed by either colonisers or the new institutions imposed on them. The question is if it is fruitful to continue the destruction of traditions, or instead build upon them like in Zambia, or perhaps even "recreate" the traditional society. It seems to be clear that new ways of approaching CBNRM is needed.

The study also raises an important question of a more general nature: if a system can in fact function on its own – then how can we justify an intervention? This does not only concern for example donors, but also the central authorities. If the locals can create their own systems, then why insist on intervening and changing them?

7 Reflections

After changing the perspectives in the discussion on CBNRM, the main conclusion is that the local conditions needs to play a larger role in the development to become more successful. However, the study is mostly based on the analysis of existing literature. Given that the literature is based on the Western perspective, it only discusses information related to their perspective. It has therefore been especially difficult to find working examples of Ostrom's (1990) perspective, and to some extent Comaroff and Comaroff's (2012) as well. We don't know whether the conclusions hold in every context. It could be that Ostrom's (1990) perspective is not suitable for all sorts of natural resources; wildlife for example, travel across boarders and it could therefore be more difficult to create long term management structures. On the other hand, the locals living among the animals are more likely to know their migration patterns and based on this knowledge could be better at creating management structures than central authorities. In some areas traditional authorities may work well to manage resources, and in some areas not. The case is the same for self-governing CPR units – it works well under certain circumstances. The most important lesson of this change of perspectives, is the importance of context when implementing programmes, and chances are it will look different depending on where it is implemented. This is not discussed in this study, and further research is thus needed in the area to see under what circumstances and in which contexts the perspectives work or not in CBNRM. More country specific information could have been of use, and field studies would in this respect have been advantageous. For future research, I believe that complementing in-depth studies are needed to know what the contribution of the perspectives could look like in practice. As a follow up on this study, field studies in different countries/contexts thus ought to be an interesting avenue for the exploration of contextual differences' influence on success of CBNRM initiatives. This is not being researched to any greater extent in the previous literature. Comaroff and Comaroff (2012) have of course already proven that traditional authorities can be democratic, but what would it be like if they were to govern over natural resources as well?

This study serves as an indication of the possibility that the Western perspective may not always work as intended, and that contextual adaptation may be necessary to succeed with such initiatives.

8 Executive summary

The management of natural resources has been a challenge in developing countries for a long time. Since the 1980's many Sub-Saharan African countries have decentralised their natural resource management to become more community-based. These decentralisation programmes, known as *community-based natural resource management* (CBNRM), not only aims at managing the natural resources at the local level, but also to ensure that the locals can derive economic benefits from the resources they are managing. The present vast literature on the subject is mostly concerned with debating the perceived failures of the CBNRM programmes, which is done with the same underlying assumption as if the discussion concerned a Western country decentralising its natural resource management. Since the programme is mostly considered to be failing, and the discussion depart from a Western perspective, it leads to the question:

• What if the underlying assumption is flawed?

Since theories shape the results of the studies, the underlying assumptions might create the "failure". Most of the studies are based on a top-down implementation perspective, but other perspectives on natural resource management from a grassroot's perspective (Ostrom 1990) and democratic governance in traditional African structures (Comaroff & Comaroff 2012) exists. The question thus reads:

 How could we understand and develop CBNRM in alternative ways taking grassroot levels and African structures into account?

Because underlying assumptions could affect perceptions of success, particular attention is paid to the various perspectives of success, with special focus on the influences of *policy and governance*, *power* and *context*. The purpose of the study is to analyse CBNRM from different perspectives and increase our understanding of the success and/or failure of such programmes.

The main method of the study is the literature review, which consisted of 25 selected articles based on results in a general search of articles in the field, and citation-based searches in order to uncover the most influential work that shape the literature in CBNRM. The review revealed that the previous research could be seen as a sort of paradigm, where the main focus is on building institutions top-down. This perspective is referred to as "the Western perspective" and places the elements for success and failure at the local level in the hands of the government, in particular the national one. Meaningful discretionary powers devolved to the local level, functioning rule of law with appropriate electoral codes and laws transferring executive, legislative and judicial powers, formalised decision-

making structures with clear constitutions and codes of conduct between local and national level, and clearly defined and legitimised conflict resolution procedures between the two levels are all emphasising the need for a committed natural level government. The Western perspective's definition of success departed from a wide and general objective. Despite formulating it in different ways, the core values of the definitions of a successful CBNRM were the same: local management, local economic development and sustainable management of the natural resources.

The alternative perspective by Ostrom (1990) depart from the idea that citizens themselves can make a binding contract to commit themselves to a cooperative strategy that they, themselves, will set up and where the appropriators equally share the usage and costs of the natural resources (1990 p 15). The other perspective by Comaroff and Comaroff (2012) emphasises the African alternative to the exported institutions, which can be just as democratic if not more (2012 p 130).

In the analysis of the Western perspective it becomes clear that the literature assumes that Western institutions are in place. Without these in place, CBNRM cannot become successful. Due to this assumption, very few CBNRM programmes are regarded as successful.

When discussing success from the alternative perspectives by Ostrom (1990) and Comaroff and Comaroff (1990), the programmes cannot be seen as particularly successful in general either, yet many elements needed for the success of CBNRM are there. These are however hindered by ill-fitting Western institutions. The influence of policy and governance on success is evident. The central authorities still plays a large role when changing perspectives to Ostrom (1990) and Comaroff and Comaroff's (2012) since the central authorities could act as a hindrance of letting the locals self-manage the resources. The study also illustrate that there are cases where locals do manage its own resources through for instance traditional authorities, and that the way some traditional authorities govern, can be characterised as "good governance". Traditionally, there is often a system for the management on resources, as well as punishment for the ones not following it. Most often, these do not coincide with the systems put in place based on Western models and the outcome is therefore not successful. If citizens are given more power they can set up their own structures working in their context.

The conclusion of the study is that the perspective in use, where Western institutions play a great role, creates many of the problems as the context of where it is formed differs from where it is being implemented. Shifting the perspective to more culturally sensitive ones is therefore important to increase the understanding and to further develop the CBNRM programmes. Despite the considerable differences in the three perspectives' way of dealing with NRM, because of its width, the main definition of a successful CBNRM in previous literature can be used on all perspectives. It is therefore possible to develop CBNRM with these proposed perspectives. Since locals' livelihoods are normally dependent on the natural resources, more is at stake for the citizens than for the central authorities regarding the management of it. Considering the importance of the resource management, and that many of the elements constituting Ostrom (1990) and

Comaroff and Comaroff's (2012) approaches are in place – although restrained – the development of CBNRM could benefit from a more locally established governance and power structure that is based in that particular context.

This study serves as an indication of the possibility that the Western perspective may not always work as intended, and that contextual adaptation may be necessary to succeed with such initiatives.

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10 Appendix

Article	Elements for success	Non-favourable elements
Jones, Brian & Weaver, Chris (2009) CBNRM in Namibia: Growth, Trends, Lessons and Constraints in "Evolution and Innovation in Wildlife Conservation"	Policy, legislation and practice should be rooted in local needs Policy should provide incentives and frameworks The conservancy approach as an institutional model (conservancy model provides institutional model based on common property institutional principles, which can be used for management of other NRs) Importance of scale in CBNRM (problem with wildlife as it moves over large areas -> problem of ownership. Many large conservancies are now splitting into smaller, which is also better for transparency and accountability) Devolution to the lowest appropriate level (conservancy committees tend to become accountable upwards to the organisations that provide funding and technical support rather than downwards to the organisation's members) Importance of intrinsic incentives for conservation (there is a shifting balance in between intrinsic (cultural and aesthetic) and instrumental incentives such as economic benefits) Balance between process and product (implementation based on process rather than pre-determined products or outcomes. Process-oriented approach implies participation in decision-making by residents themselves) Importance of light touch facilitation (working directly with communities and not only through local government institutions or traditional leaders. NGO's should not become "gatekeepers" between community and outsiders) Strong property rights	Government reluctant to give up power to conservancies. Have placed additional restrictions on the ability of the conservancies to take crucial management decisions. Proprietorship given to conservancies limited and conditional. Most management decisions (i.e. when to and how to harvest) are still taken by government. Lack of secure and exclusive group land tenure. Communities cannot prevent other people using the land that they wish to use for i.e. wildlife tourism. Unclear and unstable institutional environment. Institutions claim overlapping authority over land and NRs. Lack of capacity of NGO's and government to provide support to the growing number of conservancies.
Ribot, Jesse (2003) "Democratic decentralisation of natural resources: institutional choice and discretionary power transfers in sub-saharan Africa" Public Administration and Development, 23, 53-65 GS + F - C:51 (GS = General Search, F = Failure, S = Success, C = Citations)	Key to effective decentralisation is increased broad-based participation in local public decision-making. Downwardly accountable authorities (including non-electoral accountability mechanisms), representative authorities with meaningful discretionary powers (chicken and egg-problem of balance between capacity and power) = basic institutional elements of decentralisation that should lead to efficiency, equity and development. Some degree of democracy - a locally accountable local institution - is the first element of effective decentralisation. Discretion over NR use and management becomes the power that makes that representation meaningful. "Subsidarity principle": decisions to be located at the lowest possible political-administrative level without negative effect on the higher level. This is not followed in any African country. "Means of transfer": can be constitutional, legislative or may take place through ministerial decrees or administrative orders. Constitutional transfers are the most secure (distinction between rights and privileges important).	Many countries Transfer decision-making powers to various unaccountable local bodies, threatening local equity and the environment (i.e. donors often sideline elected local authorities owing to a general lack of confidence in them) Devolve insufficient powers and benefits either to constitute a decentralisation or to motivate local actors to carry out new environmental management responsibilities.

Shackleton, Sheona - Campbell, Bruce - Wollenberg, Eva - Edmunds, David (2002) "Devolution and community-based natural resource management: creating space for local people to participate and benefit?"	Transfer authority directly to disadvantaged people tends to be more responsive to local needs than those that allocate control to higher levels of social organisations, such as local government. Assistance should allow for diverse constitutional forms to exist, providing certain democratic standards are met. Capacity building needed, including: Improving representation, Accountability, Transparency Promoting pluralistic processes that involve disadvantaged groups.	State provides benefits as an incentive to encourage people to support activities that meet government revenue or conservation interests rather than local livelihood needs. Lack of authority to deal with raiding wildlife (trade-offs for community). In many countries stakeholders other than the intended beneficiaries decided how income was to be used. Central authorities - despite rhetoric to the contrary - continued to drive the NRM agenda. Overlapping/unclear mandates/jurisdictions leads to institutional conflicts and struggles for power and revenues.
Andersson, Krister - Gibson, Clark - Lehoucq, Fabrice (2004) "The politics of decentralized natrual resource governance"	Local politicians will invest their time and resources into activities only if they reap political or financial rewards from doing so> incentives for politicians, not individuals in the community. Regulatory powers would increase their ability to reward followers. Fiscal and regulatory benefits would give local authorities incentives to participate actively in a decentralised policy. Interest groups may undermine NR policy it they seek to extend their i e land> the strength of demands of organised interest groups. If there are no gains from the decentralised policy, and the central government does not monitor local politicians compliance, it is less likely that a politician will invest much time or energy into the policy. Central government can assert influence by imposing costs for non-compliance. Availability and value of NR influence local politicians engagement. Market access may increase the value of NR. Some argue that presence of indigenous people will result in better protection of environmental resources.	

Ribot, Jesse (2004) "Waiting for democracy: the politics of choice in natural resource decentralisation".	Accountability and institutional choice Meaningful discretionary powers are given to local level. Accountability Subsidarity priniciples and the choice of sequencing of power Powers must be chosen and transferred Clear environmental subsidarity principles will help guide the choice of powers to allocate to different levels of authority in and out of government. Adequate, clear laws in place. Capacity not necessarily before power. Requiring local users to adhere to minimum standards instead of developing complex management plans may be a better option. Factors besides the "actors, powers, accountability model" many of which can be legislated or provided by central government: Attention to inter- and intra-jurisdictional equity legal recognition for local organisations legal protections for organising, lobbying and filling suit Availability of technical support from central government Civic education The right and ability to federate local authorities and organisations The right of local authorities to control outside extractive industries. Appropriate electoral codes and laws that transfer executive, legislative and judicial powers.	Power is being transferred to non-state institutions instead of local democratic institutions. Power is being siphoned away from the representative bodies that could otherwise become the institutionalised form of popular participation. Decentralisation reforms are often used as a means of concentrating the power by choosing local institutions they can more easily control.
Boudreaux, Karol - Nelson, Fred (2011) "Community conservation in Namibia: empowering the poor with property rights"	Theory: commitment from national-level political leaders to see projects succeed, a willingness on the part of the affected bureaucracy to provide effective support, competent and committed local actors to implement projects, and appropriate timing. Additional requirements may include participation from CSO's, support from donors and partnerships with private-sector actors. Thicker bundles of property rights encourage local people to act entrepreneurally while so attending to local conservation needs.	Problems related to land tenure Human/wildlife conflict Capacity and governance/management issues -> government needs to address these issues
Roe, Dilys - Nelson, Fred - Sandbrook, Chris (Eds.) (2009) "Community management of natural resources in Africa: Impacts, experience and future directions".	CBNRM represents a spectrum of management from traditional to modern (one should not distinguish between "formal" - i e state-supported - and "informal" CBNRM. CBNRM should explicitly embrace development and conservation objectives (not just focus on conservation). Focus on demand driven collective management arrangements (support local communities and CSO's by building their capacity to engage in collective action that builds stronger political constituencies for resource governance reforms). Tenure and rights do not guarantee conventional conservation outcomes (integrated and community-driven CBNRM will increase the likelihood of fiscal, ecological and institutional sustainability by granting communities more options. Improved indicators and better monitoring by communities are needed. Success will only happen when CBNRM facilitation prioritises local interests, agency and capacity. Stakeholder roles needs rethinking in the way they support and engage with rural communities: Donors: long-term, flexible and responsive to local needs. Civil society: balancing civic duty with implementation. Governments: key responsibilities and scarce resources (prioritise more support for implementation of existing laws and policies that often already promote devolved management) The private sector: a significant but potentially risky ally (develop codes of conduct that facilitate long-term local rights and penalise inappropriate behaviour.	

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Fabricius, C - Collins, S (2007) "Community-based natural resource management: governing the commons". F + S - C: 7	Invest heavily in the development of functioning and resilient governance systems in the early stages of projects. Many obstacles can be overcome by focusing on the following aspects of governance: Knowledge networks that draw on experience and wisdom of key individuals Formalised decision-making structures with clear constitutions and codes of conduct. Clearly defined and legitimised conflict resolution procedures Legitimacy and acceptance of the governance structure by community members, traditional authorities etc. Formal commitment to well defined roles and responsibilities by key individuals in the network. Tangible incentives to key individuals for meeting their commitments Professional facilitation to promote communication between participants in the knowledge network document the lessons learnt on an on-going basis. Dialogues between local communities, scientists and government (so called "trialogue").	Shortages in critical types of capital (social and natural capital) in remote rural areas where most CBNRM programmes are situated makes the programmes vulnerable to early shocks and surprise. Critical obstacles to CBNRM mostly relate to failed governance and in particular the failure of cooperative learning networks between scientists, government and local communities: Slow pace of development Weak participation by local, national and provincial government. Poor coordination Weak local and municipal governance structures Conflicts about how costs and benefits should be distributed. Historical legacies of separate development.
Kanapaux, William - Child, Brian (2011) "Livelihood activities in a Namibian wildlife conservancy: a case study of variation within a CBNRM programme".	Conservancies as an institution must interact with government, traditional authorities and customary livelihood practices. Changes in economic conditions mediated by institutional factors are the main drivers of land-use change. Understanding how people within a conservancy make their livelihoods is a first step towards understanding how the conservancy could shape future livelihood strategies and land-use decisions. Reliability is important on a local level. Everything hinges on the success or failure of a household's livelihood activities, and these activities are in large part determined by factors beyond the household's control (i e threats as crop raiding). CBNRM programmes must take this into account.	Differences between communities. Institutions that do not recognise these differences can disrupt existing physical and social spaces or replicate old patterns of discrimination. They also run the risk of ignoring or simplifying the diverse set of formal and informal institutions that shape access to environmental resources and services.

Measham, Thomas - Lumbasi, Jared (2013) "Success factors for community-based natural resource management (CBNRM): lessons from Kenya and Australia"	Local initiation Adequate incentives for resource management Local autonomy of implementation Compatibility with local livelihoods (focus of each project on conservation issues are locally relevant rather than part of a broader political or ideological agenda exogenous to the focal region) Limited dependence on local natural resources for local livelihoods. Attachments to specific environments (e.g. particular forests or rivers) has been noted as an important motivation for voluntary participation in conservation activities.	Complex administrative structures Top down project initiation (when externally initiated and imposed on local communities, they can seem alien and local residents may lack motivation to make the project work). Lack of economic incentives to sustainably manage a resource relative to other options such as illegal poaching, especially when communities have limited livelihood options and tax revenues are withheld from local institutions. Lack of autonomy (intervening high levels of government leading to compromised applications which undermine both the integrity of participation and the effectiveness of conservation programmes). Incompatible livelihoods and opportunity costs (opportunity costs to high or project fails to add value to pre-existing resource use.
Campbell, Bruce - Shackleton, Sheona (2001) "The organisational structures for community-based natural resource management in southern Africa"	Real commitment by government to transfer management authority (and the full bundle of rights) to the lowest level possible Clarity around the mandates of and relationships to different stakeholders such as traditional leaders, local government and line departments Integrating CBNRM organisations within local government organisations Ensuring representativeness and accountability of management organisations Dedicated facilitation (often by NGO's) that builds capacity and flexibility Recognising the importance of traditional leaders Planning for private sector and their ability to generate income based on the natural resource Recognising that the value of the resource will be a key variable in determining the kind of organisational structure that is likely to be successful	Bureaucratic delay: sometimes used as a tactic by government due to lack of faith in their policies, and in other instances because bureaucracy has not realised the logistical implications of its new policies and is therefore unprepared to deal with implementation aspects.
Hutton et al (2005) "Back to the Barriers? Changing Narratives in Biodiversity Conservation" Forum for Development Studies, 32:2, 341-371 GS - C: 85	Incentives, such as economic benefits to which they have entitlement, for the people to maintain species and habitats. Interventions must be socially and politically feasible and morally just. National level enforcement is most effective when it compliments local institutions' moral economy. Bottom-up approaches can support effective conservation.	Policy and legislation reforms have not resulted in sufficient community control over natural resources. No real devolution of power and authority over resources, including land, from the state to local people. Poor quality of project design and unqualified nature of many of those attempting implementation.

Thakadu (2005) "Success Derived benefits must outweigh the costs. Lack of accountability Factors in Community Based People will conserve and manage only such resources they perceive to Project domineering by an enlightened Natural Resources Management contribute positively to there quality of life. When people's quality of life in Northern Botswana: Lessons is enhanced, their efforts and commitment to ensure the future well-being Failure to address diversity within from Practice" Natural of the resource is also enhanced. communities has in some localities Resources Forum, 29, 199-212 Broadly based participation made people suspicious, delayed Credibility and mutual trust (monitoring and frequent interactive meetings progress and undermined participation. S - C: 23 with local communities) Willingness and readiness (acceptance of project and understanding of the concepts involved and its capacity to implement the project) Perceived benefits and their distribution (immediate needs at the village levels must be addressed, such as poverty alleviation, empowerment security etc) Socio-economic and cultural stratification (identify the existing social groupings and work will all of them to ensure community solidarity) Blaikie, Piers (2006) "Is Small There is an over belief in the The unequal power relation could be palliated by participatory and Really Beautiful? Communityinclusionary techniques by which form of hybrid or knowledge can be "community's" gemeinschaft. The contradiction in the label CBNRM based Natural Resource negotiated and implemented. Management in Malawi and Bridging-points between the outsider (i.e. NGO's) and the local. These are of having the reforms and policies Botswana" World decentralisation and participation. Both imply a movement of decisiondeveloped by scientists with its Development, 34:11, 1942-1957 making and real political power from the central to more local levels. foundation in objectivity, but at the Participation in decision-making requires: transparency in transactions, same time taking the local knowledge GS + F - C: 132 accountability downwards, the granting of a considerable degree of local into account which is embedded in discretion over environmental decision making and a degree of histories and onsite negotiations facecompetence, confidence and political sophistication by local institutions. to-face. Local covenants should be drawn up by all local stakeholders to avoid This unequal power relation could be standardisation and blueprinting. palliated by participatory and inclusionary techniques, but local knowledge has often not been able to negotiate on an equal basis of scientific knowledge, but has instead been shaped by what is feared by outsiders who make strategic choices about which local knowledge is heard and conformable to the scientifically given environmental goals. Legislation and "blueprinting" Ribot et al (2006) The ability of accountable local authorities and governments to make and Central governments often transfer "Recentralizing While implement decisions is the key feature of effective decentralisation. insufficient and/or inappropriate Decentralizing: How National This ability, which defines the responsiveness of local authorities, requires powers, and make policy and Governments Reappropriate discretionary powers. implementation choices that serve to Forest Resources" World Accountability or sanctions beckons leaders to respond; responsiveness is preserve their own interests and Development, 34:11, 1864-1886 a function of discretionary powers. powers. A full sense of accountability will emerge when elections become Fundamental aspects of GS - C: 130 decentralisation, including institutionalised discretionary powers and downwardly Need for mechanisms of accountability that might supplement electoral ones - such as ombudsmen, active media reporting and effective accountable representative authorities, are missing in practice. indiciaries Decentralisation reforms may be made more comprehensive by attending No right to allocate revenue-rich to four important issues: (a) to be aware of the ways in which specific commercial rights to exploit forests: arguments and mechanisms are used to compromise democratic more often, they gain the power to decentralisation, and to recognise that the real reasons behind those allocate commercially irrelevant use arguments are not the ones being stated, (b) downwardly accountable rights for products such as fodder and institutions should be constructed at various levels of government non-commercial firewood. (including those going beyond the electoral process), (c) accountable local Lack of information provided to local officials should process discretionary powers that offer a secure domain of governments about new reforms autonomous decision-making, and funding that allows these decisions to compromises their ability to make demands on the central government be implemented, (d) in order to overcome central government resistance, "broad coalitions" that bring together a diversity of interest groups from and their capacity to manage resources different sectors of society and government could provide an effective effectively. Lack of legal clarity. institutional forum for the promotion of democratic decentralisation. The devolution of management responsibilities without corresponding funds to carry them out. By controlling the amount of space over which local authorities can exercise their power, it becomes possible to control the extent of decentralisation

Nelson, Fred - Agrawal, Arun (2008) Transparency and accountability of governing institutions is a basic The central state does not relinquish "Patronage or Participation? determinant of public officials to capture wildlife's economic value and enough control to local people eager to Community-based Natural Resource use it for patronage purposes or personal profit, and to consolidate central receive it. Management Reform in Sub-Saharan Outcomes of CBNRM and control over the resources. Hence: transparency and accountability is Africa" Development and Change, 39:4, 557-585 decentralisation are strongly needed. The more transparent the mechanisms for allocating commercial wildlife conditioned by the institutional GS - C: 40 use rights, the lower the rents public officials can extract by virtue of their incentives facing political decisiongatekeeper status. makers. Functioning rule of law. Incentives are in turn shaped by the Lower levels of corruption. size and structure of the tourist hunting Higher per capita incomes (or corruption might increase). industry. The financial value of trophy hunting activities, when directly controlled by state agencies and carried out on community lands, amplifies incentives to maintain control and to resist devolutionary reforms Lack of influence of local communities and civil society may reflect the dominant role of governing elites and foreign donors in broader economic policy formulation and decision-making processes. Oyono, Phil René (2004) "One Step Real powers must be transferred unequivocally to decentralized bodies Resistance at "the top" to policy Forward, Two Steps Back? Paradoxes of Natural Resources (local management committees and communes). innovations. Powers to manage forests and benefits accruing therefrom as well as Slow process (of administration) after Management Decentralisation in powers to make decisions about local management. application for establishing a Cameroon" The Journal of Modern African Studies, 42:1, 91-111 Corruption free central administration. "Community forest" Implementation of a monitoring system with the aim of following up Self-appointed committee members. "administrative behaviours" of national and sub-national authorities, Accountability only upwards. GS + S - C: 35 while facilitating downward accountability and sanctioning enforcement "Reconcentration" of powers in the at both regional and village levels. hands of the administration. Misappropriated funds by the regional level with the active complicity of village-level committee members. Misappropriation of expected profit. Absence of participatory culture and the persistence of command reflexes in the agents of the state at different levels (provincial and regional). The management of the forests has been diverted and taken over at the regional level by the administrative and municipal authorities, and the "external elites" of the villages. This dominant group marches to corruption. Weak system for social control. No strong organisational schemes, internal rules or an infrastructure of sanctions governing the functioning of management committees.

Nunan, Fiona (2006) "Empowerment and Institutions: Managing Fisheries in Uganda" World Development, 34:7, 1316-1332 GS - C: 22	Empowerment to enable more marginalised users to claim rights of access to and control over natural resources through existing and altered institutions. Creating networks of structures (for lake management). Ensuring accountability (elections for committee, representatives reporting to constituents and seeking approval for key decisions). Devolving rule-making powers. Establishing poverty-focused access rights and benefits from natural resources. Managing conflict and integrating natural resource management with wider socio-economic development initiatives.	
Sebele, Lesego S. (2010) "Community-Based Tourism Ventures, Benefits and Challenges: Khama Rhino Sanctuary Trust, Central District, Botswana" Tourism Management, 31, 136-146 GS - C: 21	Involvement/participation in decision-making process.	Lack of tangible benefits and employment creation. Loss of benefits from the land. Poor management. Lack of marketing and entrepreneurial skills. Lack of community involvement and participation. No sense of ownership of the project amongst the community members. Heavy reliance on foreign donors.

Virtanen, Pekka (2003) "Local Initiative and control of new activities must be devolved to communal Limited access to environmental Management of Global Values: Community-Based Wildlife residents themselves. resources. Instead of strengthening the state through deconcentration, the programme Elite capture. Management in Zimbabwe and should create effective mechanisms for downward accountability. High livelihood costs for rural people. Zambia" Society & Natural Unequal costs and benefits at Resources: An International Journal, 16:3, 179-190 individual and household level. CAMPFIRE rule systems often have S - C: 19 no link to local values and priorities, and consequently they enjoy limited local legitimacy. Mbaiwa, J. E. (2004) "The Success Local involvement in the resource management that at the same time is Policies fail to define the objectives of and Sustainability of Community-Based Natural Resource making them derive direct socio-economic benefits from the resources. government in relation to CBNRM and Success in determining the economic value of natural resources, do not provide firm guidance for its Management in the Okavango Delta, especially wildlife, has resulted in the development of positive attitudes of implementation. Botswana" South African Local people are given partial rights to the rural communities towards natural resource conservation, particularly Geographical Journal, 86:1, 44-53 manage land and wildlife resources but wildlife Stakeholders (government, community-based organisations, private sector much of it remains centralised as land and NGO's) must share information, build communication networks, is only leased to the people for a 15 promote trust and transparent decision making. years period and wildlife resources Community mobilisation and organisation should be carried out by the wholly remain the property of communities and be directed by their goals and ideas (= ownership). government except the quota allocated to the community. Lack of entrepreneurship and managerial skills in the tourism business. Lack of training and capacity building. Insecurity of tenure. Conflicts between stakeholders. Management problems of community trusts and misuse of funds. Lack of understanding of the CBNRM $\,$ concepts by the local communities. Poor distribution of CBNRM financial and employment benefits. Enclave tourism (foreign own tourism) and CBNRM compete for the same resources and clientele.

Brockington, Dan (2008) "Corruption, Taxation and Natural Resource Management in Tanzania" Journal of Development Studies, 44:1, 103-126 F - C: 8	Real power over finances and resource use. Downward accountability in the form of elections.	Strong centralising forces and weak capacity of local government. "Institutional violence" such as extraction of taxation, misappropriation and misallocation of fund, and the corruption and failure of accountability. Lack of transparency and information about expenditure on local projects by officials
Meshack, Charles K Ahdikari, Bhim - Doggart, Nike - Lovett, Jon C. (2006) "Transaction Costs of Community-Based Forest Management: Empirical Evidence from Tanzania" African Journal of Ecology, 44, 468-477 F+S-C: 20	Equity in sharing benefits and costs. Incentives to manage the forests (benefits). Generally, this means that they need to be able to recoup their costs and be able to protect those values they consider important. Revenue sharing	Dominating government the community decision-making fora through district authorities. Communities are rarely in a position to voice arguments for forest management activities that maximise their net benefits from the forests and fulfill livelihood needs.

Table 5: Elements of success and failure in previous literature.