

CONSERVATION NARRATIVES AND CONTESTED PROTECTED AREAS IN ZAMBIA: A POLITICAL ECOLOGICAL ANALYSIS.

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Abstract

This paper uses a political ecological perspective to examine the link between environmental conservation narratives and resource conflicts and degradation in Zambia's protected forest environments. It draws on the case of Munyeta Forest Reserve in Central Zambia to show how conservation narratives have been operated and translated into action to gain access to rural people's environments for the purpose of advancing conservationists agendas. Data on which the paper was based was collected through a variety of methods which include interviews, focus group discussions and archival documents. Further, discourse analysis was used to interrogate the narratives circulating around the reserve. From the results of the study, the paper argues that some of the conservation problems that characterise protected forest areas lie mainly in the application of a dysfunctional and locally unsuitable conservation approach with roots in conservation narratives that have been advanced by powerful actors.

Key Words: Political Ecology, Conservation Narratives, Discourse Analysis, Protected Forests, Resource Conflicts.

Introduction

Literature is replete with explanations of factors that drive the depletion and degradation of forest reserves in African countries. However, many of the explanations tend to be overly simplistic, focusing mainly on the actions of poor land resource users such as farmers, herders and charcoal producers as the main sources of such environmental problems. Rarely do these explanations link such problems to the way many of these forest reserves were established, including the narratives that supported their establishment. Indeed, this is where a political ecological analysis becomes indispensable; in focusing attention on how conservation narratives advanced by the state and other powerful actors have historically influenced the establishment of forest reserves and hence shaping human-nature relations in forested landscapes.

The goals of this paper are thus two twofold. First, the paper uses a PE analysis to examine how conservation narratives have historically been employed to shape human-environmental relationships in forested rural landscapes of Zambia. More specifically, the paper analyses how nature narratives have been (a) operated and used to reconstruct parcels of lands in rural environments in Zambia into pristine and fragile ecosystems in order to suit preservationists interests; (b) translated into action to gain access to rural people's environments for the purpose of advancing such ideals and establishing protected areas and (c) used to exclude rural actors from participating in the management of natural resources located in their vicinity. In Zambia, in particular, two narratives have been used by the state

to justify the establishment of protected areas. I refer to the first narrative as the ‘virgin and fragile territory’ narrative and the second, as the ‘open access resource’ narrative.

The second goal of this paper is to show how natural resource conflicts in protected areas in Zambia are largely a result of the application of a locally unsuitable and dysfunctional conservation paradigm with roots in the two narratives identified in this paper. I contend, in this paper, that the protected area paradigm, largely justified through conservation narratives represent a paradigm of natural resource conservation imbedded in western-centric views of nature. As such, the paradigm often sits rather uneasily with local realities and perspectives of their environment. In this regard, contestations, between conservationists and local actors living within or adjacent to protected areas are inevitable. Moreover, while such narratives served to justify conservation, in some cases, there application merely served as a manipulation of local people’s aspirations and interests.

To achieve the two goals, the paper draws on a case study of Munyeta Forest Reserve in Central Zambia. It considers, in particular, how the two narratives were used to support the establishment of the reserve and the nature of contestations that have emerged as a result. By examining the link between these narratives and resource conflicts and degradation, the paper makes a useful contribution in our understanding of some of the roots of natural resource problems that confront protected areas in Africa.

Nature narratives and the protected area conservation paradigm

A key characteristic of African conservation is the dominance of centralized conservation models. In particular, the protected area (PA) model where resources are placed under the control of state bureaucracies has been widely applied all across the continent in the management of forests and wildlife resources (Siurua, 2006; Jones, 2006). This system modeled after the Yellowstone National Park in the United States of America and exported to countries such Zambia by colonialists thrives on the state putting aside parcels of land designated for conservation and excluding them from various human activities viewed as a threat to such lands. Although today, conservation literature is replete with discussion of other natural resources models such as community based natural resources management (CBRM) and payments for ecosystem services (PES), this model continues to persist in African conservation policy and practice.

As a model that gained popularity among conservationists and governments, the power of the protected area models lies in scientific narratives about human-environment relationships that gained ground in academic scholarship over most of the past century (Forsyth et al, 1998). These narratives explain why local actors’ livelihood systems have often been viewed as a threat to conservation and why state bureaucratic agencies have often been positioned as the best actors to manage natural resources.

As Sandburg (2003) notes, in constructing their narratives, conservationists often draw from the natural sciences, which presuppose value free and unbiased representations of nature. In particular, the balance of nature model (equilibrium model) developed by ecologists has been instrumental in shaping conservation agendas in developing countries. The model assumes that nature has a balance that can be disrupted by human activities (Forsyth et al, 1998). Early ecological thought regarded ecological communities such as forests as organismic entities in their own right. In order to account for the evolution, growth and ontology of such organisms, ecologists developed a theory of succession which was synthesized in the work of Frederick E Clements and Arthur George Tansley in the early parts of the 20th century (Scott, 1999). In this theory, the development of an ecological community, such as vegetation, is initiated on an area not previously occupied by a plant community (primary succession) or where vegetation was removed (secondary succession)

and develops to a stable state called the 'climax'. The process is also referred to as 'climax formation', with Clements and Tansley defining the climax as "adult organisms, of which all initial and medial stages are but stages of development" (cited in Scott, 1999: 19). Thus, in this conceptualization, vegetation, regardless of where it is initiated (bare soil surface or rock) was viewed as following a natural succession towards an adult stage, 'the climax', which would eventually be in equilibrium, or in balance with the prevailing ecological determinant. This type of ecological thinking regards environments or ecosystems at various scales as tending towards equilibrium and homeostasis (Hurley et al, 2002; Gilson, 2004; Lankford and Beale, 2007). Stable equilibrium refers to an environmental condition or combination of an ecosystem state that persists, and to which the system returns following a disturbance (Suding et al, 2004). It is argued that climaxes exhibit this high degree of stability when reckoned over thousands or millions of years (Scott, 1999).

The succession theory and its concepts of climax formation, stability and equilibrium have been applied extensively in ecology. According to Zedlar (2000), these ideas were viewed as central to understandings of degradation as well as restoration of degraded ecological systems. They were accepted as an accurate description of nature, with 'climax communities', such as tropical rain forests, described as 'natural', 'pristine' or 'untouched systems' (Scott, 1999; Wood, 1995). Ecosystems were viewed as fragile or as having a delicate balance that will fall apart if they experience any change from their natural (stable) conditions. It was argued that even small departures from 'natural' conditions could lead to disastrous and irreversible consequences (i.e. move an ecosystem to another stability domain). Fragility, in this case, refers to the ease with which an ecosystem changes from one type of biological community to another (Marten, 2001). In this regard, livelihood activities such as pastoralism and other agriculture practices were assumed to be a threat to this stability.

This thinking has been central in constructing a dualistic view of nature as distinct from society. Since nature was so different, it was better left alone to retain its climax features. Yet despite this widely accepted view, the concept of 'nature' or what can be termed as 'natural', remains difficult to define or even to grasp (Warren, 1996; Wood, 1996). Drawing on ideas of climax formation, 'nature has been defined as 'the proven antiquity of an ecosystem; and the absence of signs of disturbance'" (Warren 1996:15). However, others have argued that there is no part of the earth that really fits this description as so many bio-physical factors (e.g. climate) conspire to make this impossible (Uggla, 2010). Still, in many cases, land for conservation was acquired and left alone or untouched (Hurley et al, 2002; Robbins, 2004; Leach et al 1997) so that threatened plants and wildlife population could receive protection without being subject to human competition and exploitation. It was assumed that allowing livelihoods activities in such areas would compromise the diversity of species or create instability. This would in turn negatively affect these 'fragile areas' and compromise their 'pristine' quality. Indeed, some proponents of this natural resource management model such as Rolston (1996) argue that where human activities come into conflict with the protection of nature values, the latter have to be given priority for the purpose of saving pristine environments and endangered wild species (see also Siurua, 2006). Such thinking advocates for the removal of local actor's rights of access over biological resources, alienation of local actors spaces of livelihood practice, and the placing of such 'threatened' sites under the exclusive control of state bureaucracies and conservation experts (see also Hurley et al, 2002; Gibson, 2004; Lankford and Beale, 2002; Forsyth et al, 1998; 2003; Jones, 2006). In this paper, we have insights into how such narratives were adopted and applied to reconstruct the Munyeta environment, leading to the establishment of a protected forest that has now become a site of contestations.

Approach and Methods

Discourse analysis (DA)

To examine the two narratives noted in the introductory section of this paper, this study draws on discourse analysis (DA) as one of the popular PE approaches to the analysis of environmental issues. In literature, discourse can take a variety of meanings. In its simplest form, discourse can be understood as 'conversation'. However, in the context of this work, discourse is understood as more than just mere conversation. It is understood as a way of viewing phenomenon, where meaning over the phenomenon is shared by a socially and culturally defined group of people (see Adjor et al, 2001). In other words, cultural groups (be it at the local, national or international level) create, own and operate discourse. Members of social groups participate in the production, reproduction and transformation of discourse through oral and written statements (Adjor et al, 2013).

Further, group members who operate the discourse associate with each other around a common set of beliefs, interests, goals and activities. In order to advance their goals and interests, such groups develop arguments about phenomena, which in time, come to be accepted as 'truths' or 'ideologies' (Taylor, 2013; Forsyth, 2005). These arguments are what this work refers to as 'narratives'. Narratives are story lines or devices through which people advance their knowledge and views about phenomenon (Tumisiime and Svarstad, 2011) such as nature. A key characteristic of these narratives is the use of powerful terminology and images or symbols in describing or talking about phenomena (Swyngedouw, 2003).

It is important to note that discourse, apart from being a way of talking about phenomena, also contains a course of action (Tumisiime and Svarstad, 2011). More often, ideas and views about a phenomenon are translated into action in form of policies, strategies or projects. For example, ideas about nature are often translated into conservation policies or conservation action. In this paper, as we examine the narratives operating around Munyeta Forest Reserve, we pay particular attention to the type of action embodied in the narratives. We also pay attention to the terminologies and symbols or images associated or invoked by such narratives and examine what they are intended to achieve. Some terminologies such as 'open area', for example, in Zambia's conservation discourse are used as though they are neutral terms, yet are situated within the general fabric of narratives that privilege a certain way of viewing reality. They are illustrative of an important set of discourse with implications on rural environments.

As noted in the preceding sections of the paper, discourse analysis has become indispensable to a PE perspective. However, as power relations are central to any PE analysis, it is important to consider here the link between power and discourse. Partly, the link between power and discourse emanates from the fact that discourse is often produced, operated and perpetuated by actors who have power and means to advance it. In other ways, it is often dominant groups with access to specific forms of discourse (e.g. those of politics, science etc) and scarce power resources (money, status, knowledge) that often own, operate and perpetuate discourse (Jorgensen and Phillip, 2002; Taylor, 2013). Most often, discourse around a phenomenon may pity the powerful against the weak or the marginalized. However greater access to power resources often allows the powerful to advance their interests and act on their narratives at the expense of the weak (see Edmund and Wallenberg, 2003). In this way, the powerful do not only draw on power resources to advance their interests but also exercise their power through discourse.

This, however, in this paper's view, does not mean that the weak are entirely incapable or resource-less to contest the actions that arise as a result of the powerful acting on their constructs. To the contrary, the weak may contest such actions through the only power resources available to them. Often, in a conservation context, power resources available to the marginalized include 'forms of resistance' such as encroachment of protected territories and general defiance of statutory regulations guiding conservation. These are what others term as 'weapons of the poor' (Scott, 1985). Moreover, as Jorgensen and Philips (2002) point out, any discourse produced is always in conflict with other discourse that defines reality differently and set other guidelines for social action. Dominant narratives circulated by powerful actors may come to be contested at one point and compete with narratives produced by the marginalized. As will be seen later, in this paper, some actions of local actors in Munyeta may be viewed in the context of their ability to contest the actions of powerful actors who are acting on their constructs.

Data collection

The empirical data on which this study is based were collected through a variety of methods during an 11 months period of fieldwork. The methods include interviews, focus group discussions and examination of archival and current conservation policy documents. Interviews were conducted with conservation practitioners, policy makers and members of communities within and adjacent to Munyeta Forest Reserve in Chongwe. Before the government reserve was established in the area, Munyeta was part of the Luano-lalo native reserve which was administered by the Soli Chieftaincy. This suggests that in colonial times, this forested area was recognized as a Soli tribal commons. The Soli, who are the main inhabitants of Chongwe District have a 500 year history of existence in the area.

In total, 36 interviews were conducted with households inside and outside the reserve. Further, 34 interviews were conducted with conservationists, policy makers, community leaders and representatives of other agencies involved in natural resources conservation in the country. The representatives include foresters working at district, provincial and national levels. Interviews with these actors allowed the study to assess the congruency between conservationist views of the Munyeta local landscapes and that of long-time and current residents of the area. Conservationist views were taken as elements of conservation discourse circulating among conservationists and policy makers as a social group with defined goals and objectives linked to rural landscapes. These views were also compared with national forest policy positions and ideological underpinnings behind the establishment of protected areas found in specialist nature and protected areas literature. In political ecology, policy documents and other official documents are taken as texts that express the intents and interests of various actors such as the state over time. According to McDonald and Tipton (1996), such documents are social products that are intended to be read as objective statements of fact. However, these documents are often socially produced, implying that they are produced on the basis of certain ideas, theories and commonly accepted, taken-for-granted principles.

Results and Discussion

How conservation gained ascendancy over local interests in Munyeta.

The most important criteria that government used to select Munyeta as a forest reserve were that of 'naturalness and fragility'. In particular, the area's biophysical characteristics were reconstructed as a 'virgin (natural) and fragile ecosystem' that required

‘protection’ (see FD, 2007). Second, the categorisation of the forest resource tenure in the area as ‘opens access’ provided further justification for bringing the area under state conservation. From a political ecological point of view, these sets of criteria constitute a set of discourse or narratives that justify the state’s intervention in these sites (Forsyth, 2003; Scott, 1999). The next section examines in detail how Munyeta was fitted into these two narratives.

(a) *The ‘virgin and fragile ecosystem’ narrative*

Official documentation and state actors interviewed in this study claim that Munyeta was an ‘uninhabited’ territory principally occupied by ‘virgin’ forest (FD, 2007) prior to the establishment of the reserve. This framing and description of Munyeta was reinforced by maps that depicted the area as ‘unsettled’ by human population. In fact, some reports described it as tsetse infested and inhospitable to human population (RRC, 1979). This view of Munyeta as uninhabited and ‘virgin’ before the creation of the reserve was reiterated by the district forest officer who notes that ‘the area’s vegetation was intact, it was all virgin forest until people started encroaching in the reserve.’ In addition, the area’s range of hills and hydrological characteristics, which give Munyeta an exceptional scenic beauty, were re-interpreted as key elements of a ‘fragile environment’ (see CDDC, 2005). This idea of environmental ‘fragility’ provided the justification for the forest department to bring the area under its protection. This is also explicitly expressed by the FD:

The purpose for degezzetting this Forest was to protect the ‘fragile’ environment and maintain the catchment area of the two strategic rivers of Munyeta and Mwapula as perennial rivers. Following this action it meant that a person is not allowed to do any acts as stipulated under the Forest Act Cap 199 of the Laws of Zambia such as to settle, cultivate, harvest, rear livestock, construct etc.(FD Report, 2007).

Moreover, the representation of this area as ‘fragile’ necessarily required the reconstruction of communities living in proximity to this reserve as a threat to that fragile environment (see also Buckingham and Turner, 2008; Horning, 2005). Indeed, this is implied in the second part of the statement of the Forest Department’s report. The objectives outlined for the establishment of the reserve are purely ecological which preclude use of the area for any productive purpose. The prioritisation of a narrow set of conservation objectives in the establishment of the forest reserve should be of no surprise: this is consistent with a conservation paradigm that esteems ‘pristine nature’ and allows conservationists to advance the idea that protected forests and woodlands should be socially and economically exclusive (see also Adams and Hutton, 2009). According to Wood (1996), the selection of sites for conservation of biological resources seldom takes place in a vacuum. Often, conservationists select sites based on what is claimed to be a defined scientific criteria. In most cases, these criteria relate to the values that scientists attach to a particular site and its biological resources. For example, Wood (1996) notes that ‘naturalness’ often figures prominently in the criteria for site selection.

While this thinking has hailed sway for nearly a century, today, a new generation of conservation theorists have challenged the dominance of ‘pristine nature’ in conservation thinking (Forsyth, 2003; Escobar, 1996; Ugglá, 2010; Zimmerer, 1994; 2000; Robbins, 2004; Scott, 1999). Scott (1999), in particular, considers this discourse as an element of hegemonic myth-making that perpetuates the protection of western constructs in African environmentalism. It universalises the preservationist value system of a northern minority

while excluding the values and voices of local actors directly affected by proposed conservation measures (Siurua, 2006).

Although new conservation approaches are now gaining ground in Zambia's conservation policies, the clamour of 'pristine nature' has not died out and still dominates the thinking of some of Zambia's conservationists. This suggests that although the concept of 'nature' is fraught with contested definitions, and is a subject of criticism from many political ecologists (Forsyth, 2005; Zimmerer, 1994; Uggla, 2010; Escobar, 1996), it is still an extremely powerful concept in African environmentalism.

There are several possible explanations why this paradigm still retains a place in conservation thinking in Zambia. Among them is the fact that the discourse of nature and its policy prescriptions have been the major source of authority and power for foresters in Zambia. For over 70 years, this discourse has allowed the forest department to build one of the most formidable estates in Zambia's conservation history, running over 400 protected forests and covering a total land area of 7.2 million hectares (CDCC, 2005). This has allowed the Forest Department to control over 9.6 % of the country's land area. In this regard, it is still in the department's interests to hold on to this narrative. Indeed, it is possible that this discourse has become so hegemonic after so many years of emphasis such that it is very difficult for many of these actors to simply shed it off or accept new alternatives. As Marple (2003:231) aptly puts it, "this is how discourses work: they naturalise what we talk, what we think and how we behave and, when they are particularly powerful, they make it very difficult to imagine alternatives or counter discourses" (p231)

(b) *The 'open access' narrative*

The second narrative that allowed state conservation to gain ascendancy in Munyeta was the framing of this local commons as an 'open access' woodland. Indeed, according to the district forest office, the area was gazetted because it was 'an open area' and the forest act of 1973 mandates the FD to alienate forested lands in these areas if they are seen as threatened by people's livelihood activities (FD, 1974). In fact, the study finds that the areas in the Luano Lala that have not been designated as protected areas are still viewed as threatened environments. The forestry section in the Chongwe district situation analysis, which is the first volume of the district development plan, has already constructed the 'threats' to these 'open areas' and notes that: "Large portions of land are under the traditional set up of Luano Lala and Soli Wamanyika native reserve.activities include among others, shifting cultivation charcoal production, cutting of trees for commercial purposes, grazing..... These **open areas** are being exploited for their resources.....". (CDDC, 2005:53).

The reference to traditional land as 'open areas' deserves attention here. It is important to note that in the Zambia Lands Act (1995), such land is recognised as a 'common pool resource' under the control of traditional leaders and their subjects. In contrast, forests on customary land are not similarly recognised as customary commons. Rather, such forests are simply classified as 'open forest areas'. Although the terminology of 'open forest area' appears to be neutral, such representations of rural environments have roots in crisis narratives that often fail to differentiate between 'common pool resources' and 'open access' regimes, and hence create ambiguity in understanding of rural property systems (e.g. Hardin, 1968). In the case of Munyeta, the state profited from this ambiguity and advanced a discourse that positioned Munyeta as unprotected from the opportunistic behaviour of the local population adjacent to this 'virgin forest'. The idea of 'open access' also builds an image of disorder in which anarchy prevails in the extraction of natural resources and justifies state authoritarian action as a means of bringing order. In this conception, Munyeta was positioned as being characterised by an institutional vacuum and/or by a lack of any

knowledge of natural resource management. This obliterates any notion of the existence of local controls, such as Soli traditional institutions that have governed resource management before the establishment of the reserve. In this vein, such narratives allow the state unilaterally to frame solutions aimed at preventing the so called '*tragedy of the commons*' problem that emerges from 'open access' situations. These solutions, however, are designed in ways in which the state manages resources for its own interests. But as will be seen in the next section, such narratives are not without contestations. In some cases, they hardly represent the reality on the ground.

Local contestations of narratives of 'nature' and 'open access'

The framing of Munyeta area as 'uninhabited' and an 'open area,' before the declaration of the reserve is contested by local actors who have been resident in the area for a long time. Some long-term residents interviewed in the study note that the Soli people in the area already had a history of deriving various livelihood benefits from the reserve. While they agree that some of the sections of the forest were uncultivated or unsettled, they argue that this reserve was part of the Soli tribal commons which was used as a hunting area, a source of building poles and other forest products for the Soli communities both outside and inside the reserve. In this sense, the reserve was very much central to the livelihoods of Soli local communities and access to resources was governed by customary norms and conventions. During one group interview session, the local elders drew attention to Mayaya village which was established in the area prior to the creation of the reserve. They pointed out that they were not part of the consultations that led to the creation of the reserve but were surprised to learn that the village was now part of a government forest. According to this local narrative, this new information was immediately contested by the villagers who brought the case before the Chief. When they requested to know the boundaries of the reserve, they were shown a map of the new reserve which showed that the area was not settled by any-one. These local elders argue that the map was a distortion of the realities on the ground as the new boundaries split Mayaya village into two, with one part of the village inside the reserve and the other outside the reserve.

In addition, the local elders note that some of the areas of the reserve were inhabited by Zimbabwean freedom fighters that used the densely forested parts of the area as a base. According to one of the key informants, the Zimbabwean freedom fighters interacted with many of residents in the area and even distributed medicines to the sick members of the community, as well as foodstuffs in times of hunger. In addition, some of the households in the reserve showed the researcher some of the war 'memorabilia' in form of communal pots (mostly turned into water storage facilities) and old camp beds purported to have been left to them by the fighters.

Moreover, some interviewees recounted some of the bombings that took place in the area, including the destruction of a bridge that connected them to communities outside the reserve. For a long time, these long-term residents noted that vehicles could not gain access to the area due to the destruction of the bridge which was only rebuilt a few years ago. They point out that after the fight, many areas were left with land mine which explains why some the reserve's areas were not cultivated, settled or used for any productive purpose. Indeed, this account of local history was confirmed by a former forest extension officer who spent nearly 10 years working around Munyeta forest reserve. The forest officer notes that "in some areas, the boundaries of the reserve are up to today not clear because some areas had land mines resulting from the presence of Zimbabwe freedom fighters in the area "

The same officer also happens to be the only forester who acknowledges that the forest in question was already a traditionally managed piece of land before it was degazetted

a government forest reserve. This study also sought to confirm this oral history by examining aerial photos of the area before 1980. Unfortunately, despite pressing an order for the aerial photos with the national survey office, the study failed to get access to these aerial photos due to administrative difficulties. However, the collaborative evidence from various actors disproves the assertions that the area was uninhabited. What is clear, however, is that the narratives of ‘virgin’ and ‘unprotected fragile environment’ prevailed over people’s claims to the reserve. Unfortunately, the local population did not have the power to depict their case through maps or draw on legal statutes to claim and enforce the rights. As Edmund and Wallenberg (2003) note, “because public officials have greater financial resources, media access, and other sources of power, they have the capacity to act on their constructs and interests at the expense of poor forest users” (p150).

The Munyeta situation reflects a scenario where spaces of community practice are perpetually defined and reworked towards a socially legitimised form of environment by actors with the power to create rules and regulations (see Vaccaro and Beltran, 2010 on conservation as reconceptualization of space). Often, these spaces are reconstructed into visions that are hardly in harmony with the realities and interests of those who live and work in these environments. From the colonial period to the present, the area has passed from simply being ‘Soli land’ to a ‘native reserve’ and then a ‘forest reserve.’

The myth of scientific forestry and the creation of a contested landscape.

The creation of the reserve marked a change in land-use from a multi-use area where forests co-existed with cultivation, settlements and other livelihood activities to a forest conservation area primarily emphasising the protection of biophysical resources. It also marked the replacement of the ‘traditional resource manager’ with the ‘modern scientific forester’. In theory, Munyeta was now to be managed on the basis of sound scientific forestry and in accordance with statutory regulations formulated by the state. There are three broad categories of forest activities that were supposed to be carried out in Munyeta. These are forest management activities, forest protection and revenue collection (GRZ, 1998). Forest management refers to the development and implementation of management plans for the reserve, carrying out of forest inventories, woodland maintenance and restoration and monitoring of production activities. Forest protection, on the other hand, includes all activities related to the ‘physical’ protection of the reserve and enforcement of forest regulations to ensure compliance. These activities include patrolling of the forest reserve by forest guards in order to prevent illegal harvest of resources and human encroachment of the forest reserve (ZFD, 2005). Forest protection also includes clearing of the forest boundary in order to maintain a distinction between land belonging to the community and government forest. The forest boundary, which is maintained by clearing of the forest perimeter also acts as a firebreak.

These activities are supposed to ensure forest resource management is based on a ‘sound and scientific’ practice of forestry (ZFD, 1974). However, in reality, the study finds that in Munyeta, forest management has been far from what can be described as ‘sound’. The records at the FD district and provincial offices show that from the time the area was declared a reserve, the FD has never developed a forest management plan to guide operations in the reserve. Instead, it appears that management activities in the reserve have been guided by a set of broad guidelines and principles outlined in the forestry policy and acts that are being applied to this local site without taking into consideration its local specificities. These management activities are presented in Table 1.

Table 1: On-site forest management in Munyeta- performance indicators

Site Management Activity	Frequency of Activity Carried Out
Resource inventories and socio-economic surveys	No inventories conducted in the past 30 years
Development of management plans	The reserve has no management plan
Habitant & boundary maintenance	There are no maintenance activities being carried out
Fire management	No firebreak maintained or fires being monitored
Restoration of degraded areas	No forest restoration activities have been carried
Patrolling of the reserve	Patrol stopped in the 1990s after guard was retrenched
Licensing and revenue collection	This is done on a daily basis
Monitoring visits	District office makes quarterly visits to the reserve
Awareness programmes	District office infrequently conducts awareness campaigns

Source: Field Data (based on records at the both Chongwe district and provincial Forestry Offices)

From table 1, it is can be seen that no forest inventories have ever been carried out by the Forest Department since the establishment of the reserve. In this vein, key characteristics of

the forest, such as the composition and distribution of plant species and vegetation health conditions, are virtually unknown. This, more or less suggests that what has been termed as ‘sound scientific’ management of forests in Munyeta is, at best, mere ‘guess work’ as there was never a time in the 30 year history of the reserve when ‘scientific forestry’ was ever a reality. In addition, the reserve boundary’s perimeter has never been cleared since the 1990s. This means that it is impossible for other actors to distinguish the forest reserve from customary areas, thus fostering natural resource conflicts between the state and other actors. Indeed, the study found that all local respondents interviewed in the study did not know where the exact surface boundaries of the forest were located, except for points where the reserve borders some surface water bodies. During transects, it was observed that some people living outside the reserve cultivate and graze their livestock inside the reserve without worrying about boundaries.

The futility of effectively managing the reserve based mainly on a policing strategy was put to an even tougher test in the 1990s when budgetary allocations to the Forest Department were drastically reduced as part of the country’s economic reforms. This weakened the department’s financial and human resource capacity. On a dwindling budgetary allocation, officers could only afford occasional visits to the reserve. In addition, the forest guard was retrenched as part of the SAP process leaving the reserve without physical protection. To the present day, Munyeta forest reserve has no staff located in proximity to the reserve. The results show that the only forest activity which the district office has consistently carried out is the issuance of licences and the collection of revenue from users of forest products. Thus, while management activities were rarely carried out, the state’s economic interest in the reserve’s resources remained strong. The revenue generated from licensing activities does not benefit the community but accrue directly to the state treasury.

From the transects carried out in the reserve, it was also observed that the forest reserve is highly fragmented as large sections of the area are being opened up for agriculture, new settlements and charcoal production. Indeed, both the Forest Department and the long-term residents of the area agree that the reserve has undergone extensive land cover changes since its establishment. The CDDC (2005) notes that: “With the current encroachment levels exceeding 50% and with permanent structures built, including a school, the forest has been severely tempered with. Activities which include illegal charcoal manufacturing and farming are now common in the reserve (p52)”. Put simply, the forest is now a contested zone of competing land-uses as varying land-uses with significant ecological implications were observed in the reserve. Some of the land uses and their implications are presented in Table 2.

Table 2: Observed land uses with implications on forest cover

Ecological Zone	Land use and implications
River line areas	Most river line areas cleared for rain- fed agriculture and off rain season gardening Implications –include river siltation and loss of ecosystem services, extensive damage to vegetation at source of Munyeta, although <i>phoenix and papyrus</i> species still standing, also reported crop damaged due to flooding
Hilly areas	There is cultivation on a few hill slopes, in the northern parts of the reserve, the hills still have a lot

	of forest cover
	Implications include extensive soil erosion and loss of ecosystem services, gullies observed in the area
Dambo areas	Most Dambo areas used only for grazing and have not experienced a lot of vegetation clearance
Plateau areas	Large areas cleared for settlement and agriculture
	Also a school built with 6 permanent structures
	Some farms are more than 10 hectares in size, also a lot of vegetation clearance for charcoal
	Implications include extensive loss of vegetation cover and erosion reported on fields

Source: Field Data

From Table 2, it can be seen that, although the state sought to establish a strong protectionist resource management regime in Munyeta, this has not materialised into any environmental dividends. In other words, it shows that the protected area model, in the face of a variety of limitations, has failed to adequately provide an effective means of managing natural resources in Munyeta. The case of Munyeta only serves to add to the existing literature that shows the inadequacy of the protected area model in natural resources conservation and justify the need for a new way of managing natural resources (e.g. Primak, 1993; Siurua, 2006; Adams and Hulme, 2001a; Richard, 1993).

Perhaps, an even stronger factor that limits the fortress conservation is the conflict between local actors (in and outside the reserve) and state conservation in the area. Besides the original inhabitants of the area, new villages have mushroomed. The exact number of families residing in the reserve is not known, although a fact finding mission in 2008 put the number of households at 1500, but this may be an underestimation of the number of settlers in the reserve. The communities in (and outside) the reserve present a huge challenge to the management of Munyeta primary because of their perspective over use and control of the reserve differs from that of the state. These differing state-community perspectives are presented in Figure 1

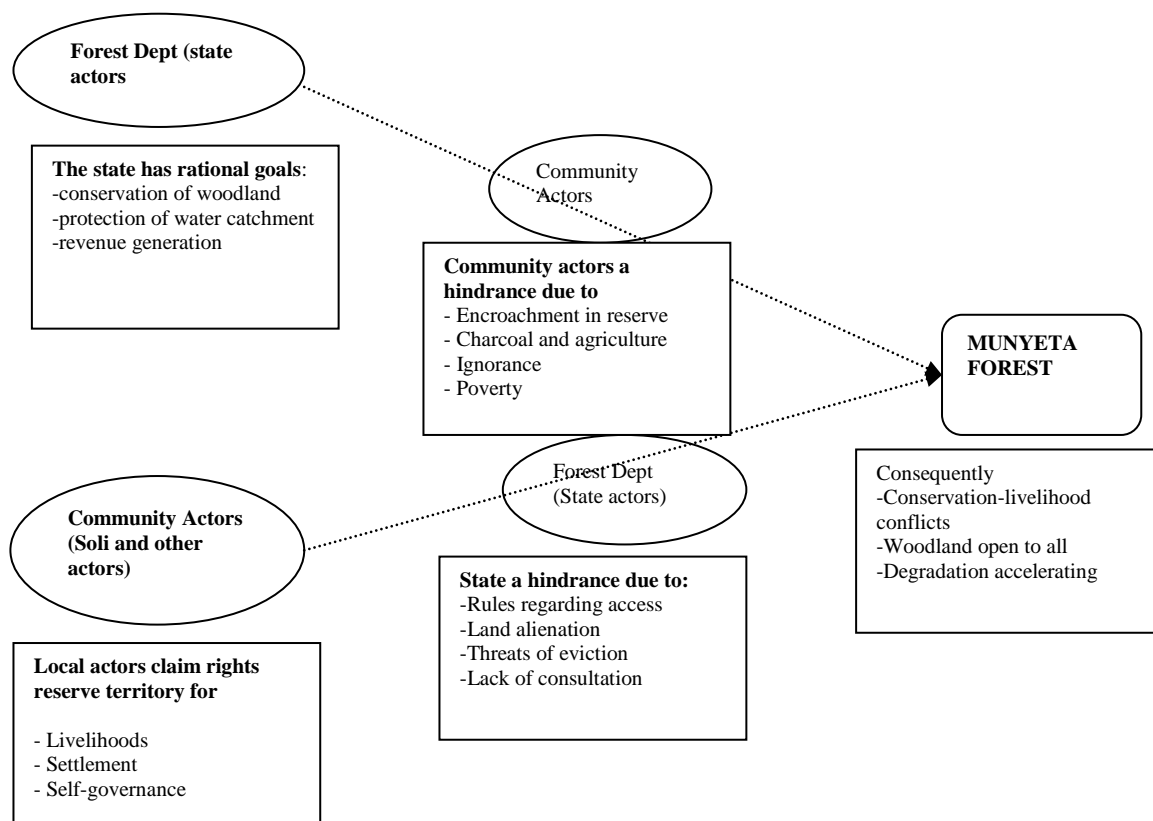


Figure 1: Differing community –state perceptions of the reserve

Source: field data, illustration adapted from Horning (2005).

As can be seen in figure 1, while the state views the area as a site of conservation, the community sees it as important for settlement and livelihood activities such as crop production and livestock rearing. More importantly, is the fact that some local actors, particularly the Soli, who are the original inhabitants, see conservation as an illegitimate imposition on the area. The soli continue to claim ownership to and control over the reserve area. Interestingly, from the interviews, the research found at least three respondents in the reserve who openly framed their interest in the reserve as part of a ‘Soli tribal resistance’ against the state’s action to alienate land they consider to be their ancestral territory. Similarly, during a group interview session with the Soli elders, some of them noted that they are in the reserve, not because they lack land, but because they want to defend Soli interests in the reserve. The role of these actors in the reserve appears to be part of a Soli strategy to re-establish control over the land and to facilitate a return to customary natural resource governance. As opposed to the official identification of ‘squatter’, these actors identify themselves not as squatters, but as ‘owners’ of the land. At the same time, they position all other actors, including the Forest Department, as outsiders who have disempowered the Soli of their land.

These Soli traditionalists believe that deliberately moving into the reserve is the only way their views can achieve recognition. Moreover, there is also evidence that the Chieftaincy has also acted to reinforce Soli presence in the reserve by sending some of the Indunas to settle in strategic locations of the reserve. More importantly, the area has been re-zoned and incorporated into the traditional governance structure. In this vein, while outsiders know the area in terms of a forest reserve, the local Solis know it in terms of Soli traditional zones and villages under Chief Bunda-Bunda. Quite clearly, community re-organisation is gradually forming around Soli headpersons who are being recognised as the village heads and as the ‘eyes’ of the senior chief of the land. Indeed, to act as a stamp of authority, all new settlements are taking the name of the Soli Induna in charge. With this reorganisation of traditional leadership structures in Munyeta, which sets local actors against the state, the reserve has become a highly contested environment in which conservation is only one of the many competing uses of the land.

Conclusion

One of the major characteristics of political ecology is that it may take a variety of methodological approaches. One of the methodological approaches is discourse analysis which is often deployed to critique popular conservation narratives. In this paper, we have seen how discourse analysis can be used to focus on conservation narratives that have historically served to influence the direction of natural resources conservation in the country. This paper has discussed how nature narratives have been translated into exclusionary conservation practices based on the fortress conservation model in some parts of rural Zambia. It has shown how the application of this model thrives on the idea that the area designated as a reserve is either uninhabited by human population, or measures have already been undertaken to identify and eliminate human threats. This is also consistent with similar arguments advanced by other scholars in some literature (see Blaikie, 2008; Robbins, 2004; Ecologist, 1990). To construct a highly centralised natural resource management regime in Munyeta, the state relied on nature narratives and constructed Munyeta as an ‘uninhabited’ territory that required protection and separation from human society in order to maintain its naturalness. In addition, narratives of ‘open access’ resources were employed to justify the appropriation of these customary commons for conservation. Such a conservation approach seeks the advancement of ideals that are not in congruency with those of local actors who interact on a day to day basis with such resource sites. Moreover, the paper shows that this vision of untouched nature in the case of Munyeta was in fact based on a distortion of local facts and amounts to little more than mere manipulation of the rural population, a vision which perhaps reflects the hegemony of western values in African environmentalism. Munyeta forest reserve is highly illustrative of this type of conservation and by no means exceptional in the country. For over 70 years of Zambia’s conservation history, the vocabulary of environmental conservation has been dominated by western notions of ‘nature preservation’, ‘catchment protection’ and the promotion of aesthetic values while marginalising other values, including those that local actors ascribe to natural resources. Drawing on such narratives, all across the country, local actors’ livelihood spaces were appropriated by the state and designated as protected forests and national parks. Today, the country has over 480 protected forests under this type of conservation.

The costs of this type of conservation were (and are still) disproportionately distributed. While all economic benefits from conservation accrued to the state (in terms of revenue from licences and concession fees) and other economic actors (e.g. concession companies), local actors whose lands were converted into protected areas without compensation received no share of this revenue. Instead, local actors have been subjected to

hardships through lack of access to resources in the reserves, evictions from tribal territories and sometimes violent confrontations with state agencies. This, of course, is not a trend that was restricted to Zambia. Throughout the developing world, these narratives have been used to gain access to local lands for the purpose of establishing protected areas (Forsyth et al, 1998; 2003; Bryant and Bailey, 1997; Campbell, 2000). For example, Mistry et al (2009), reflecting on Guyanese and Jamaican experiences with natural resources discourses, finds a similar scenario where such representations of the Caribbean environment were used to justify the appropriation of local actors' lands and the establishment of natural resources enclosures. Consequently, while these landscapes became restricted spaces for local actors, they were opened up for non-local actors (e.g. timber companies).

From the results, it is clear that the fortress conservation approach, despite its continuing popularity represents a dysfunctional approach that sits rather uneasily with local circumstances. Policy makers need to rethink such type of conservation and embrace conservation approaches that take into consideration local specificities, including local institutional arrangements and claims over natural resources they interact with. Moreover, today, many protected areas across the developing world are heavily encroached by people (Matose, 1997; Bryant and Bailey, 1997), a fact that can no longer be ignored in natural resources conservation. In this regard, new natural resource management strategies that assert, rather than deny the presences of human beings in natural ecosystems are required (see Barker and Stockdale, 2008).

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