

STATE PROPERTY REGIME VERSUS COMMON PROPERTY REGIME:

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Abstract

This paper presents results on whether or not demarcated state forests in Zimbabwe (as state property) can be readily converted to common property. The results are based firstly, on secondary research and the examination of relevant literature on traditional and conventional forest management approaches and forest legislation and its bearing on these approaches. Secondly, the results reflect on the findings of a primary research based on Participatory Rural Appraisal (PRA) workshops conducted in five villages abutting Fuller forest, using six different PRA tools. During the pre-colonial era the current demarcated forests were managed as common property under the guidance of traditional institutions. Rights accrued to specified user groups. Non-members were excluded. Rules defined the rights and duties of members with regards to access, use and management. Sanctions were in place to ensure compliance. The management practices ensured sustainable forest conservation. After gazetting, the forest became state property with rights of ownership and management vested in the Forestry Commission. The gazetting process alienated the local people by extinguishing traditional use rights to the forests. This has resulted in local resistance to the Forestry Commission authority. Forest margin communities currently illegally use 23 different forest products. State control has failed to halt or reduce forest resource degradation and in some cases complete loss of the forests. The objective of this paper is to test the reliability of theory that state forests as state property can be sustainably managed under a model of a common property regime to satisfy the needs of rural households without compromising the conservation values of the forests.

Introduction

Demarcated state forest reserves in Zimbabwe have increasingly become a contested resource. The problem, increasingly intractable, stems from the growing demands of forest residents and forest margin communities for recognition of their traditional or perceived political rights to forestlands and forest resources. The Forestry Commission views forests as inputs for production, sources of revenue, areas of recreation and repositories for genetic resources, communities view them as their original customary land, sources of subsistence and places of cultural and spiritual fulfilment. These diverging objectives and interests are the root sources of increasing conflict between the FC and forest margin communities leading to illegal use of the forests that has subsequently resulted in deforestation and forest degradation. The demarcated forests as a state property regime are now characterised by state ownership, control and management under which other stakeholders are not permitted access except with the consent of the Forestry Commission's. The Forestry Commission over-estimated its capacity and took on far more forest management authority than it could effectively cope with. The process of forest gazetting only succeeded in alienating local people, setting them against the forest authority, the exact opposite of what successful forest management requires. Forest protection and exclusion has not proved sustainable, it has resulted in considerable local resistance and abuse of the forests. The paper traces common property forestry and conventional forestry in the 'teak' forests of Western Zimbabwe. Next it points out pertinent areas of the forest policy and legislation that influence the current management approach of these forests. The third section highlights the kinds of conflict over forest resources use. The fourth section attempts to highlight the levels of dependency on forest resources by communities abutting Fuller forest.

Pre-colonial forestry traditions

During the pre-colonial era the communities in western Zimbabwe, like elsewhere in miombo woodlands in the country and throughout the tropical dry forest ecosystems of Africa, developed traditional institutional structures (chiefs, headmen, kraal heads & elders) to govern, manage and control use of their own local forest resources as common property resources (Grundy 1990; Grundy *et al* 2000). Rules and regulations ensured the

judicious use of forest resources and adherence to these indicated some form of management. Generally, resources with high social or subsistence economy values were not wasted by using them for less valuable purposes. Harvesting of fuelwood was commonly restricted to dead wood, for example. Levels of community investment in developing institutional arrangements to govern and manage forestry resources were related to perceptions of resource availability (Bradley & McNamara 1993). Indigenous technical knowledge clearly underscored both use and management of the forests. Knowledge about the taxonomy, ecology, silviculture and uses of trees and forests were widespread among rural forest communities (Matowanyika 1991; McGregor 1991; Coote *et al* 1993a). In the 'teak' forests of western Zimbabwe, harvesting of forest products was highly selective. Resources of high value were selectively retained wherever they occurred e.g. fruit trees. Protection and management of important species were more intensive in fields or near homesteads than in the commons. Management practices of some specific resources were traditionally enforced by means of religious taboos, when rules and regulations were believed to have been instituted by the ancestors. For example, Households of the Ndlovu and Mpofo totems would respectively not touch or eat elephant and eland meat or use the animals' by-products for fear of misfortunes striking in the families. Trees, which grew around sacred water sources, would not be cut for fear of causing the water source to dry up. Such practices demonstrate local ways of managing and conserving forest resources sustainably.

A prevalent pattern of institutional arrangements for common property forest resources was a village-based organisation that regulated access to and harvesting of forest products. Access to these resources was generally limited to local residents and restrictions varied by community and resource type. For instance, local residents generally collected deadwood freely for household consumption, whereas the cutting of wet wood required special authorisation by village authorities, usually the chief. Local institutional arrangements were a fairly common system for natural resource management in other parts of the country (Grundy 1990). These institutional arrangements were generally relatively simple and easily understood by both local residents and outsiders.

Communities practicing common property management regimes also had local monitoring and enforcement mechanisms. Village police normally mounted periodic patrols of the defined village lands. Infractions were sanctioned in the light of their seriousness and willingness of accused to admit guilt and submit to penalties. Penalties and fines could include one herd of cattle, a goat, a bag of grain or community work (personal communication with Chief Mvutu 2002).

Creation of protected forest areas out of the commons

When the colonial power arrived it selected the best land areas for allocation amongst themselves as large-scale farms, or for the development of towns and as protected areas for conservation. The Land Apportionment Act of 1930 saw the division of the country mainly into two land categories i.e. the European and African Areas. The Africans were relocated onto marginal areas of poor soils and erratic rainfall, while the Europeans gave themselves fertile land in areas where rainfall was good and the soils were fertile. Areas that were discovered as richly endowed with natural resources such as natural commercial timber and wildlife were appropriated and turned into protected or conservation areas as state forests and National Parks.

The need to formally control management and commercial use of the natural hardwood forests on the Kalahari Sands in western Zimbabwe was recognised by the British South African Company as early as 1909. At that time the mines and railways companies realised that the Kalahari Sand teak was one of the finest sleeper timbers and it was upon the popularity of this single species that the hardwood sawmilling industry was founded (Judge 1975).

Judge (1975) describes how demarcated forest reserves came into existence. In 1925 the Morris Carter Commission proposed that 670 000 acres (268 000 ha) of the teak forest be set aside as protected forest areas. The proposal led to the official proclamation of Gwaai and Ngamo forests as the first gazetted forest lands under the Land Apportionment Act of 1930. Amendments to the Land Apportionment Act in 1936, 1937, 1941 and 1959 saw

more of the local teak forests in western Zimbabwe being gazetted as protected state forests. In 1969, the Land Tenure Act repealed the Land Apportionment Act and its various amendments. The first schedule of the Land Tenure Act described the gazetted natural forestland with a total area of 857 000 ha. In 1972, the Land Tenure (Description of Boundaries Notice No. 1051/72) was published giving the full boundary descriptions of all gazetted natural forestland. The gazetted natural forest estate totalled approximately 833 000 ha.

The objectives for which these forests were gazetted were:

1. To produce exploitable timber of the main commercial species.
2. To increase the productivity of the forests by developing schemes to utilise minor forest produce and by implementing the principle of multiple land-use where feasible.
3. To maintain or increase the soil, water, flora and fauna conservation value of the forests.
4. To develop the amenity value of the forests.

In pursuing these objectives forest management became for all intent & purpose focused on conventional forestry i.e. timber & wildlife production for commercial purposes. The objective for multiple land use and development of schemes to utilise minor forest products was never fully developed, though its partial implementation during the 1970s could be said to be the source of the current illegal settlements in some of the gazetted forests.

The current indigenous or natural forest estate in Western Zimbabwe was gazetted as state forest areas between 1930 and 1956. The indigenous people who had resided in these forests for centuries and based their subsistence livelihood from the forest resources were summarily evicted. The gazetted forest areas became the property of the state under the management of the Forestry Commission that was established in 1954 through the Forest Act of 1934. The Forest Act asserted the state control over forests and forest

products and extinguished all traditional management practices and customary rights of ownership and access to the forests and forest resources.

National forest policy & legislation constructs

The original forest policy for Zimbabwe was formulated in 1920 and passed in 1924. As far as the gazetted natural state forests of Western Zimbabwe were concerned, the policy gave strategic directions for the establishment of natural forest reserves, the provisions of funds for forest protection and for the close supervision of timber exploitation on a sustained yield basis (Judge 1975). The forest policy went through two revisions since then, in 1971 and in 1983. The revisions did not substantially alter the original statements, but in 1983 it reflected on that “the country’s entire forest resources should be managed and developed holistically on a sustained yield basis, that the needs for all kinds of forest produce by the people and the industry be assessed and in consultation with govt., the private sector and the people, ensure that their needs are met now and in the future”. National advocates of community forestry interpret this as giving strategic directions for people focused forestry in Zimbabwe. This policy statement could be said to permit management initiatives that recognise the role of local people in the management of demarcated forest reserves. This is evidenced by the Forestry Commission’s participatory forest management initiative in the Mafungabusi Forest Resource Sharing Programme and the Community Timber Concession in Gwaai Forest reserve.

However, the policy is not explicit on the roles and responsibilities the various potential stakeholders could take in sustainable forest management and what benefits or incentives could accrue to the different stakeholders. However, there are some national policies with indirect implications for the development of common property forest management regimes under different models e.g. the CAMPFIRE Programme. The 1992 Wildlife Policy has broad implications for common property forest management. The predominant

concern of the policy is to promote the devolution of responsibility for wildlife management to local stakeholders and ensure the benefits accrue to the local managers (Murphee 1993). The implication is that the policy may guide the Forestry Commission in determining forest management systems that are people centred. Though the CAMPFIRE policy does not place any obligation on the Forestry Commission to institute management programmes that involve and benefit local communities in respect of forests under its jurisdiction, it however, places a strong moral obligation on the Forestry Commission to ensure that forest margin communities benefit from objectives of managing the forests. The perceived success of CAMPFIRE has undoubtedly influenced the FC to attempt a version of the CAMPFIRE programme with timber and non-timber forest products in Mafungabusi forest reserve, Pumula protected block in Tsholotsho Communal Area, and a community timber logging operation in Gwaai forest under which communities co-manage the forests with the Forestry Commission (and the Tsholotsho Rural District Council in the case of Pumula Block) on the condition that the communities benefit from subsistence and commercial utilisation of timber & non-timber forest products (Forestry Commission 1994; 1999; 2001). Under these arrangements the communities manage and utilise the resources as common property for the benefit of the defined stakeholders. In order to make these arrangements works, the communities in collaboration with the supporting agencies (Forestry Commission & Tsholotsho Rural District Council), have attempted to meet the minimum conditions required for successful common property resource management.

Legislation affecting forestry in this country was promulgated in 1929 in the form of the Native Reserves Forest Produce Act that particularly sought to control use of forests and woodlands in communal areas. The subsequent Forest Act of 1949 and the Forest Amendment Act of 1953 gave birth to the present Forestry Commission in 1954 (Judge 1975). In terms of the Act, Section 15, gazetted forests fall under the ownership and central authority of the Forestry Commission. The Forestry Commission acquired full and exclusive legal rights, including all rights of ownership, exclusion and management except the right to alienate ownership. The Forestry Commission has exclusive rights over the forests. The implication is that, legally no one is entitled to any rights in any

gazetted forest or to any forest produce other than may be given in terms of the law by the Forestry Commission. The legal right of ownership and control is supported by the criminalisation of the use of any forest produce. On the other hand, the Forest Act gives the Forestry Commission the power to make by-laws “that are in its opinion necessary or expedient for the proper control and management of any gazetted forest” – Section 66. The by-laws may provide for use of gazetted forests for residence, cultivation, grazing, camping and picnicking; entry of persons into the forests subject to the rights of the public to travel on public roads and use by the public of facilities provided in the forests, on the basis, terms and conditions on which they are provided – Section 66 (Forest Act 1949, revised 1996). Therefore the Forestry Commission is entitled to adopt any management regime (other than relinquishing ownership) it deems necessary or expedient in order to fulfil its mandate (Mohamed Katerere 2000).

Conflicts around gazetted forests

When the state asserted its control over the gazetted forests it subsequently extinguished all common property forest management practices that had been going on for centuries in the ‘teak’ forests. In the first instance indigenous forest dwellers were evicted from most of the forests save for cases of the tenant system that was allowed in specific forests. Use of any forest produce by the forest margin communities and forest tenants was criminalized or severely restricted. For the forest margin communities and those households that had acquired tenantry use and access to forest products was not free. Both had to obtain authority in the form of permits from the Forestry Commission to harvest or collect many of the forest products. The Land Use (Demarcated Forests) Regulations By- Laws governed the use of the forests under the provisions of the Forest Act (Forest Act 1996). These by-laws were very unpopular, as they were perceived to be very restrictive. They did not permit any local decision making for individual or collective management of localised resources let alone those resources found deeper in the forests. Management practices or regimes were prescribed and controlled by the Forestry Commission. It was clear in peoples’ minds that ownership of all resources lay with the Forestry Commission. It was also clear in peoples’ minds that their presence in

the forests and their proximity to the forests was merely to help with fire protection in particular. Teams of armed forest guards closely monitored activities of the tenants and forest margin communities and non-compliance to the land use regulations meant eviction specifically for the tenants and “harassment” and arrests for the forest margin communities. As a result the relationship that has developed between the communities and the Forestry Commission in the last few decades is largely characterised by hostility, suspicion and confrontation. With the rise in socio-economic and political aspirations of these communities the confrontational attitude has graduated into abuse of the forests through opening up forests for fields and settlements, arson and poaching of forest products for commercial and subsistence purposes. The Forestry Commission is squarely blaming the activities of these communities for the perceived deforestation and resources degradation in demarcated forest. While the Forestry Commission view forests as inputs for production, sources of revenue, areas of recreation and repositories for genetic resources, communities view them as their original customary land, sources of subsistence and places of cultural and spiritual fulfilment. These diverging objectives and interests are the root sources of increasing conflict between the FC and forest margin rural communities.

Dependency of forest products by forest margin & forest resident communities

Communities around gazetted forest make extensive use of forest products from the forest. This is illustrated in tables below that show the range of forest products that are of social and economic importance to rural livelihoods. Participatory Rural Appraisal (PRA) workshops were conducted in five villages north west of Fuller investigated the use of forest resources by these communities (Tables 1- 19). This was done by means of simple exercises undertaken with small groups (8 – 10 individuals), comprising a mixture of elderly men and women and the youths. The PRA tools used were use patterns, ranking and scoring, historical trends, wealth ranking, livelihood strategies and user group identification. The main objective was to investigate local perceptions on issues related to forest resources in Fuller forest reserve particularly the level of households dependency on the forest products and services.

Resources use patterns

The use of 23 different resources were recorded by at least 3 of the 4 villages, these being, grazing, firewood, poles, thatch, branches, medicines, fruits, caterpillars, broom grass, wood for utensils and honey. Less frequently recorded were dyes, fibres, mushrooms, manure for fields, shade, commercial timber, wood for curios and wildlife. In all villages there was a reluctance to talk about honey, wildlife and wood for curios and the use of the main timber species for making commercial items such as planks, furniture and curios. Activities involving these products are strongly discouraged by the Forestry Commission.

For three villages, women generally allocated higher priority than men to firewood, thatch grass, fruits, caterpillars, broom grass and dyes. Men gave higher ratings than women to grazing, construction poles, branches for fencing and wood for utensils and carving.

For each village the bulk of the collection and utilisation is for personal or household use rather than for sale. The items frequently reported as being sold were medicines, caterpillars, fruits, honey, wooden utensil (yokes, grinders and stirring sticks). Though it was not reported, the sale of honey, wooden curios and game meat is quite high around Fuller forest.

Trends in forest products availability

A general and progressive decline in the availability of most key resources was reported. This was attributed to the systematic undermining of traditional institutions by the Forestry Commission in their role to control management & use of forest resources even when the forest was owned by Forestry Commission. The perceptions were that since locals were depended on the forests, there was need for local consultations with the local chief and his headmen and kraal heads in the manner subsistence resources could be

extracted. The relationships between the Forestry Commission and the forest margin communities are often tenuous and uncooperative resulting in abuse of the forest. Other reasons given for the general decline in resource availability were ineffective control mechanisms by the Forestry Commission, premature harvesting e.g. of thatch & broom grass, over and indiscriminate harvesting, over-grazing and a high human population heavily reliant on wood for energy, construction and fencing.

Wealth ranking & livelihood strategies

Four wealth-ranking categories (rich, average, poor & very poor) were identified based on locally generated wealth indicators. About 70 % of the households in the participating villages were poor and very poor, while 30 % were rich and averagely rich. An analysis of the livelihood strategies indicated that the poor and very poor households had livelihood strategies that were largely forest based. The households gave high rankings to carving wooden curios, harvesting and selling wood for carving, herding cattle, thatching other people's houses, harvesting thatch grass for sale, harvesting poles & firewood for richer households as their main livelihood strategies.

User group identification

Eleven categories of other users of Fuller forest were identified and the key ones were consumptive and non-consumptive safari operators, thatch harvesters from outside the villages, curio carvers & collectors of carving wood from outside the villages, The Zimbabwe National Army for training purposes, Forestry Commission, timber concessionaires, construction companies for pit sand, newly resettled villages, traditional healers & herbalists from outside the villages. While the diversity of the users entailed competition for the forest resources, some of their activities such as safaris and timber harvesting meant that areas where these activities take place become unavailable to locals during the operations.

Perceptions of use activities that result in ecological problems

Villagers appreciated that some of their activities and those of the other users can result in ecological problems. The problems and their impacts were reported as: indiscriminate

tree cutting that resulted in changes in species composition, forest structure, loss of biodiversity and soil erosion; destructive harvesting that killed adult plants and thus affects regeneration potential or recovery of extracted resources; commercial harvesting of fruits that led to wholesome removal of propagules necessary for regeneration and over-grazing that resulted in loss of soil.

Mitigating strategies for the ecological problems were suggested as: Practicing artificial regeneration; better forest management that incorporates local knowledge systems; refraining from illegal extraction of forest resources and complying with Forestry Commission and traditional rules & regulations of using the resources; building management capacity within the local communities and consideration by the Forestry Commission to share economic benefits with locals as an incentive for participating in management.

From the foregoing it is obvious that rural communities depend on a variety of forest products for direct subsistence. There is an appreciation of the problems that might arise out of unsustainable use of the forest resources. Communities acknowledge the need to comply with use rules and regulations to avoid abuse of the forest resources. At the same time the communities' perceptions are that regular consultations between the Forestry Commission and the traditional institutions could foster healthy relationships that could defuse the current hostility and suspicion between the FC and the communities. There is a wealth of local knowledge about the local forest resources that could be put to useful use in managing Fuller forest sustainably. Constraining access to and use of forest resources is bound to cause continued conflict and disharmony in the manner the gazetted forests are managed.

Discussion

Common property and collective management of protected forests

Common property regime theory is linked to an attempt to challenge Hardin's (1968) notion of the "tragedy of the commons". Hardin failed to distinguish between common

use characterised by an absence of defined property rights governing access and use, i.e. open access regimes, and common property that is defined as a situation where a number of owners are co-equal in their rights to use the resources (Lawry 1990). Under common property regimes, the user rights of individuals are defined and limited to prevent over-exploitation of the common resource base (Lawry 1990). The common property regimes are structured arrangements in which group membership is known, outsiders are excluded, rules are developed and enforced, incentives exist for co-owners to conform to the institutional arrangements and sanctions work to ensure compliance (Bromley & Cernea 1989). Institutional control over the common resources is essential for effective common property resource management. Where erosion of institutional authority occurs, as happened when traditional forest areas were appropriated during the colonial period, the predicted path is towards an open access system and a “tragedy of the commons” scenario as being experienced in state controlled protected forests.

Mol & Wiersum (1993) defined a common property resource as any resource that is subject to individual or group use but not to individual ownership. The resource is normally used under some arrangement of community or group management (Mol & Wiersum 1993). In contrast, Bromley (1992), argues that there is no such thing as “a common property resources, there are only resources managed as common property, as state property or as private property”.

In this paper common property resource is used in a sense to mean resources managed under a common property regime. Given this understanding, can state owned and state controlled natural forests revert to some model of a common property regime? What would be the implications to rural peoples’ welfare and the conservation status of the state forest reserves?

Common property versus state property

To effectively recognise the value and potential of common property regimes for sustainable and equitable forest management, it would be helpful to compare and contrast

this regime with the state property regime. Due to Hardin's "tragedy of the commons" model, it has almost been universal in the past for states to nationalise or privatise land and natural resources as the effective route to combat resource degradation and depletion. This view is rapidly changing particularly among international agencies and governments of many developing countries. Forest resources under the protection of the state or forestry authorities continue to be degraded and depleted. Given this trend, there is still, however, considerable resistance to and scepticism of a common property approach, particularly in the Zimbabwean context in as far as protected forests are concerned. This is so because arguments against any model of common property management on the part of the state tend to focus, first, on the perceived unreliability or limited capacity of local people to manage protected areas, and secondly, on the need for strong state control over state resources. There is still strong apprehension that decentralisation and devolution of protected areas would lead to Hardin's "tragedy of the Commons" (Hardin 1968). However, the former argument can be discredited on the grounds that there are certain minimum local conditions that should be present for a common property regime to function e.g. recognising the value and importance of local institutions and indigenous knowledge systems and management practices. The latter argument is hotly debated in the context of high value forests and forest resources, where there is still much resistance on the part of the state & forest authorities to relinquish control (Katerere 2000; Wily 2000). It is interesting to note that while there are these misgivings, apprehensions and resistance the forests continue to be degraded through illegal use. Therefore does it not make practical sense to bring the local users into the fold of collective management if only to save the forests and let the forests formerly contribute to rural poverty alleviation?

Here I provide a definition of a state property regime and argue why common property regimes can be both socially equitable, environmentally and economically rational. A state property regime e.g. demarcated state forest, is defined by state ownership and control of the resources, in which others, depending on use objectives, may or may not be permitted access to the resources (Shackleton et. al. 1998). In the case of state forest reserves, the Forestry Commission may give forest margin communities usufruct rights to the land and ownership rights to the forest products. The forest products e.g. wild fruits,

trees, thatch grass, grazing become common property, but their use remains embedded within state property regime since the communities do not possess legal title to the land. In Zimbabwe, and consistent with the provision of the Forest Act, the Forestry Commission may give communities usufruct rights to the forest land and ownership rights to the specified resources or products.

In the Resources Sharing Programme in Mafungabusi state forest and the community timber concession in Gwaai state forest margin communities have gained usufruct rights to the forests and ownership rights to the various timber and non-timber forest products in these forests. In Mafungabusi and Gwaai forests some of the key conditions and criteria for successful common property resources management have been implemented under the facilitation of the Forestry Commission, the respective Rural District Councils, other government institutions, traditional and political institutions. For example, the resources that communities can extract have been specified; resource boundaries have been delineated according to participating villages. Group and individual users have been identified and in the case of Mafungabusi by resource type e.g. only women can harvest broom grass. Also in Mafungabusi forest large village have been broken into specific number of households to facilitate effective communication, planning, decision-making and monitoring. Local resource management committees have been developed and capacitated to effectively deliver on their roles. Rules and regulations have been developed and penalties for non-compliance established. Commercial beneficiation has been negotiated amongst the participating households and between the communities and the Forestry Commission. In both cases the process has been time consuming, sometimes messy, as political and ideological differences of the various stakeholders have sometimes led to conflicts. These initiatives have managed to reduce the levels of resources abuse and forest degradation in both forests. Cases of illegal resources extraction have dropped by about 25%, while the recovery of degraded sites have been observed.

As the above sections illustrate, forest resources degradation is occurring widely in state forests. This is one of the reasons why the Forestry Commission is initiating the process

of devolving access, management and ownership of state forests to local people after a period of appropriation or nationalisation. The Forestry Commission recognise that it over-estimated its capacity to effectively control huge areas of state forests. In the first instance, the process of land appropriation succeeded in alienating local people, setting them against the state and state authority – the exact opposite of successful forest management.

A number of critical reasons for promoting common property regimes over other property regimes have been advocated from around the 1970s. It is currently recognised that rural households rely wholly or partially on non-private forests and woodlands for food, fuel, medicine, construction material and fodder items as illustrated in the above Fuller forest case study. Without these forest resource items, the households would struggle to survive (Clarke, Cavendish and Coote 1996). Nationalisation or privatisation deprives large portions of the rural population and poor urban population of their livelihood support system, without delivering the expected promise of more effective resource management (Bromley and Cernea 1989). Change of use rights away from traditional authority to centralised state authority has failed to reverse the decline in protected area resources (Wily 2000). Without a sense or culture of ownership and stewardship of local forest resources communities abutting state forests will engage in illegal extraction of the very resources that form the basis of their livelihood in a fashion akin to an open access scenario. The maintenance of common property regimes assures a safety net particularly for the poor who have few livelihood alternatives.

Common property regimes are more equitable systems of natural resource use. Nationalisation and privatisation concentrate valuable land and resources in the hands of a few individuals. In fact, most productive areas are often tied up in private or state property, making it difficult for common property regimes to operate in marginal areas. This is typical of the situation in Zimbabwe (Scoones and Matose 1998) and South Africa (Foy 1998), where discriminatory land policy and legislation pushed the majority of the population into marginal areas. Large areas of forests are under conservation, commercial livestock production and commercial wildlife production, whilst poor rural households

struggle on impoverished forests and woodlands in communal areas. Inequitable land and natural resource distribution continues to create new pressures on poorly resources communal land base, state and privately owned properties.

It has been demonstrated that local level management of forests and wildlife resources has been more successful in preventing resource degradation than state control under a state property regime. Once degraded Indian and Tanzanian state forests have now recovered after locals' engagement in collective management (Ford Foundation 1998; Wily 2000); and loss of the wildlife resources has been reduced in districts engaged in CAMPFIRE programmes in Zimbabwe (Murphee 1993).

Conditions necessary for successful common property resource management

The arguments against any model of common property management regime can be discredited on the grounds that there are certain minimum local conditions that should be present for the regime to successfully function. The theory can be translated into practice as it highlights for practitioners the necessary requirements for effective common property regimes. The theory also alerts practitioners of the difficult situations that can be met and that require careful consideration and thought through solutions. There is a general consensus amongst proponents of common property regimes that the regimes work under certain circumstances and conditions. These Conditions that are considered relevant to demarcated state forests in Zimbabwe are reproduced here from sources including: (Mckean 1986; Wade 1987; Bromley & Cernea 1989; Lawry 1990; Ostrom 1992 and Cousins 1996).

Common property regimes work more effectively where users reside close or inside the common property resources. This might be difficult where decision makers in the community e.g. males are migrant workers living elsewhere as the situation is in some communities abutting forest reserves in Zimbabwe. Resource management committees may need to be formed from resident users and those with greatest dependence on the

resource base. Absenteeism has been argued as the downfall of many common property regimes (Bromley and Cernea 1989).

The resource area should be clearly delineated and the resources should be clearly distinct such that users can exclude non-members. Given the array of users as indicated in the Fuller forest case study above it would be extremely important to identify households, individuals or groups with use and access rights. Often, this is an extremely complex process requiring expert facilitation and good conflict resolution skills. This is an area where the Forestry Commission for example, can play a role within a co-management framework in helping capacitate local systems of forest resource management, clarifying user territorial rights and providing a legal framework enabling users to obtain legal rights to the resources (Baland and Platteau 1996). Where boundaries are contested they need to be renegotiated and re-established (Cousins 1996).

Resources with small boundaries are easier to manage and monitor than resources dispersed over a larger area (Ostrom 1992). Some of the state forests in Zimbabwe are quite large (144 000 ha for example). In such situations it might be useful to delineate the forest into different use and management zones e.g. zones of intensive versus less intensive use and management.

Understanding the technical issues relating to the ecology and biology of the resources should not be underestimated (Baland & Platteau 1996). Growth rates and production rates are important in determining sustainable harvests. Current promotions of the commercialisation of some forest resources tend to overlook critical ecological factors and downplay negative effects of extraction. Lack of information on the dynamics of the resource base is often the cause of mismanagement.

Rights of access, use and exclusion should be certain and sustainable. For the state forest, security of ownership is important but this does not necessarily mean titling as legally the forestland is owned by the Forestry Commission. On the other hand the Forest Act permits the degazetting of portions of forest where there are plausible reasons to do so.

Bromley (1992) stresses invasion by outsiders when only *de facto* ownership is exercised by users.

Effective common property resource management institutions are likely where resource users have prior experience with levels of organisation through some general purpose village committee (Ostrom 1992) e.g. the village development and ward development committees (vidco & wadco) in Zimbabwe. However, the dual institutions of traditional institutions (chiefs & headmen) and political institutions (vidcos & wadcos) in Zimbabwe may be a source of conflict in terms of resources control.

The role of the Forestry Commission should be supportive and as a facilitator and advisor. The Forestry Commission should provide the legal framework within which the local level institutions can operate. The co-management model is becoming more fashionable where forestry departments are devolving management rights to communities.

Effective common property regimes emerge where the perceived benefits of organising and complying to rules exceed the perceived costs of collective action. Users also place high values on resources in terms of their own economic and social survival (Ostrom 1992). People will show little or no interest in managing or protecting common property resources if the benefits accruable are insignificant (Baland and Platteau 1996).

Conclusion

State forests, as state property can be sustainably managed under some model of a common property regime to satisfy needs of rural households without compromising the conservation values of the forest. However, it is pertinent to ascertain that certain minimum factors, conditions and criteria are present for the development of successful common property regimes. It is important to note that the situation on the ground is much more complex, each model of common property resources management regime will have its own unique elements. There is no blueprint solution or universal model to be applied.

Any approach must seek to support and facilitate local level decision-making and institution building. Cousins (1996), argues, “Attempts to develop viable common property regimes must be recognised as being time consuming, messy and contested in character”.

Acknowledgements

I thank the following for making it possible to write this paper: IASP Indiana University, CASS, Forestry Commission, B. Ndlelambi, Smart Ncube, Mrs E. Masuku, John Nyoni, Chief Mvutu and his headmen and kraal heads. The views expressed here are those of the author and do not necessarily reflect the policies of the Forestry Commission, IASP and CASS.

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Tables

Table 1. Use of forest products by BH 11 Village.

Resources	Importance *		No of users (% of HH)	Availability **	Proportion collected for (%)	
	Women	Men			Own use	Sale
Firewood	11	4	100	16	100	0
Building poles	14	28	100	17	100	0
Thatching grass	16	22	100	6	100	0
Branches for fencing	11	12	100	10	100	0
Medicines	8	6	40	5	20	80
Fruits	5	4	100	17	70	30
Caterpillars	8	4	85	3	80	20
Broom grass	11	3	100	14	60	40
Wood for utensils	8	7	100	4	100	0
Honey	2	5	25	-	100	0
Dyes	3	1	85	2	60	40
Manure for field	3	4	55	6	100	0
Total	100	100	-	100	-	-

* Importance scored out of a total of 100.

** Availability scored out of a total of 100.

Table 2. Use of forest products by Chidobe village.

	Importance	No of users	Proportion collected by (%)	Proportion collected for (%)
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Resource	*	(% of HH)	Women	Men	Own use	Sale
Firewood	24	100	50	50	75	25
Building poles	15	100	0	100	95	5
Medicines	12	95	50	50	25	75
Fruit	17	100	50	50	25	75
Caterpillars	10	50	75	25	50	50
Wood for furniture	1	5	0	100	2	98
Honey	5	10	0	100	15	85
Mushrooms	10	100	50	50	100	0
Wood for curios	0	2	0	100	1	99
Wildlife	4	2	0	100	100	0
Pit sand	2	5	20	80	100	0
Total	100	–	–	–	–	–

* Importance scored out of a total of 100.

Table 3. Use of forest products by BH 28 village

Resource	Importance *		Proportion collected from (%)		Proportion collected for (%)	
	Women	Men	Valley	Gusu	Own use	Sale
Grazing	3	33	50	50	100	0
Firewood	31	2	50	50	100	0

Building poles	4	14	75	25	100	0
Thatch grass	15	3	25	75	90	10
Branches for fencing	1	10	95	5	100	0
Medicines	9	6	50	50	90	10
Fruit	6	3	40	60	98	2
Caterpillars	5	3	50	50	50	50
Broom grass	3	0	10	90	99	1
Wood for utensils	0	5	50	50	95	5
Honey	0	1	50	50	100	0
Mushrooms	3	2	70	30	100	0
Dagga for bricks	14	7	100	0	100	0
Pit sand	1	6	100	0	100	0
Stones for building	5	5	100	0	100	0
Total	100	100	–	–	–	–

* Importance scored out of a total of 100.

Table 4. Use of forest products by Chikandakubi village.

Resource	Importance *		Proportion collected from (%)		Proportion collected for	
	Women	Men	Valley	Gusu	Own use	Sale
Grazing	6	14	50	50	100	0
Firewood	10	8	50	50	100	0
Building poles	7	9	40	60	100	0
Thatching grass	14	8	50	50	85	15
Branches for fencing	3	9	70	30	100	0

Medicines	9	9	70	30	95	5
Fruits	6	4	40	60	98	2
Caterpillars	8	1	50	50	50	50
Broom grass	5	6	80	20	98	2
Wood for utensil	1	7	60	40	90	10
Honey	5	4	50	50	98	2
Dyes	6	1	60	40	96	4
Fibres	8	4	50	50	98	2
Shade	10	9	50	50	100	0
Commercial timber	2	7	0	100	2	98
Totals	100	100	–	–	–	–

Table 5. Trends in forest products availability – Chidobe Village.

Resource	1955	1990	2010	Comments
Thatch grass	60	30	10	Erratic rains & draughts
Poles & Cross members	80	15	5	Elephant damage and indiscriminate cutting
Grazing	75	20	5	Increased human, livestock & wildlife population
Wood for curios	90	10	0	Weak & ineffective forest legislation
Fire wood	90	10	0	High incidences of wild fires
Problem wildlife	10	30	60	Introduced for safaris and availability of water
Wildlife in general	90	10	0	Disappear due to increased human population

Table 6. Trends in forest products availability – BH 11.

Resource	1955	1990	2010	Comments
Thatch grass	80	18	2	Harvested when not ready, fire, overgrazing
Reeds	90	10	0	Harvested when not ready
Construction poles	90	10	0	Over harvesting as population increases
Grazing	85	8	7	High livestock population, overgrazing, fire
Employment	90	5	5	Employment by FC is decreasing.
Mushrooms	70	20	10	Decreasing rains, high human population
Caterpillars	60	30	10	Decreasing preferred spp, high harvesting competition
<u>Vangueria infausta</u>	90	10	0	Tree population decreasing
Umkojombo	50	30	20	Tree population decreasing, competition with monkeys & baboons
Honey	80	15	5	Occurrence decreasing
Wildlife	70	7	8	Population of many species decreasing but that of elephants increasing. Poaching.
Firewood	60	30	10	Preferred species decreasing. But generally increasing due to elephant damage.
Medicinal plants	80	10	10	Preferred species disappearing due to over harvesting
Fruits in general	70	20	10	Competition with animals

Table 7. Trends in forest products availability - BH 28 Village

Resources	1955	1990	2010	Comments
Thatch grass	20	3	2	Too many forest fires
Cross members	15	8	2	Too many households putting up wooden structures, High elephant population
Construction poles	18	5	2	Too many households putting up wooden structures. High elephant population
Grazing	22	2	1	Bad relations & attitude between villagers & Forestry Commission
Building stones	25	25	25	Not used extensively
Trees	22	2	1	Indiscriminate cutting
Fire wood	25	25	25	Generally plentiful as a lot of trees are

				felled by elephants and also after timber harvesting and harvesting of poles.
Plastering dagga	25	25	25	Only few households collect this type of soil from the forest.

Table 8. Trends in forest products availability – Monde Village

Resource	1955	1990	2010	Comments
Construction poles	15	7	3	Intensive use for construction & fencing
Thatch grass	11	9	5	Decreasing due to use impact by wildlife, people, livestock and fires.
Fire wood	5	7	13	Increasing due to increased wood poaching and elephant damage that kill trees.
Bark fibre	15	7	3	Impacted upon by elephants and people.
Plastering dagga	25	25	25	Resource is available locally. People do not collect it from the forest.
Wildlife	6	7	12	No culling. They destroy our fields due to high population

Table 9. Trends in forest products availability – Chikandakubi Village

Resource	1955	1990	2010	Comments
Construction poles	90	50	30	Cutting due to shortage of accommodation & high rate of curio carving.
Thatch grass	98	60	45	Impacted by fire, grazing & cutting for thatching
Fire wood	100	80	60	Domestic use energy is high/selling
Honey	90	60	20	Unsustainable harvesting
Wildlife	60	20	4	Impacted by hunting and fire
Medicinal plants	80	70	50	Unsustainable harvesting for healing and witching
Wild fruits	70	50	20	Increased competition between wild animals & people

Table 10. Wealth ranking for five sample villages

Village	Wealth category	% of Households	% of male headed HH	% of female headed households
Chidobe	Rich	5	5	0
	Average	20	14	6
	Poor	35	30	5
	Very poor	40	20	20
BH 11	Rich	9	9	0
	Average	17	11	6
	Poor	54	40	24
	Very poor	20	9	11
BH 28	Rich	7	7	0
	Average	13	8	5
	Poor	65	53	12
	Very poor	15	9	6
Monde	Rich	6	6	0
	Average	10	7	3
	Poor	74	54	20
	Very poor	10	2	8
Chikandakubi	Rich	5	5	0
	Average	60	40	20
	Poor	25	10	15
	Very poor	10	3	7

Table 11. User group identification – Chidobe village.

Chidobe Village	Outsiders
Carvers	Hunting safaris
Women who harvest thatch grass	Grass cutters from Vic Falls
Livestock owners	Carvers from other provinces, districts and towns
Construction poles harvesters	Zimbabwe national Army for training purposes
Wildlife poachers	Forestry Commission employees
Traditional healers	Photographic safaris
Honey harvesters	Timber concessions
Reeds harvesters (mainly women)	

Table 12. User group identification – BH 11.

BH 11 Village	Outsiders

Thatch grass harvesters	International hunters
Construction poles harvesters	Timber companies e.g. Savana Wood
Curio carvers	Curio carvers from Victoria Falls town
Fire wood harvesters	Photographic safaris
Livestock owners	Poachers from towns
Herders	Collectors of pit sand e.g. Kwidini
Plaster dagga collectors	Forestry Commission employees
Traditional healers	Forestry Commission
	Ngamo Safaris
	Those being resettled in surrounding farms
	Thatch grass harvesters from Victoria Falls
	Traditional healers from towns and other provinces
	Fire wood vendors from Victoria Falls

Table 13. User group identification – BH 28.

BH 28 Village	Outsiders
Thatch grass harvesters	Thatch grass harvesters from Victoria Falls
Construction poles harvesters	Hunting, photographic Safaris
Curio carvers	Construction contractors from Vic Falls – pit sand
Firewood harvesters	Timber companies e.g. Savanna Wood
Plaster dagga collectors	Fire wood vendors from Victoria Falls
Harvesters of mopane worms	Traditional healers from towns and other provinces
Wild fruit harvesters	
Honey collectors	
Bark fibre harvesters	
Reeds harvesters	
Livestock owners	
Traditional healers & herbalists	
Broom grass harvesters	
Mushroom harvesters	

Table 14. User group identification – Monde Village

Monde Village	Outsiders

Curio carvers	Harvesters of wood for curio carving
Firewood collectors	Poachers & safari hunters
Livestock owners	Pit sand collectors
Thatch grass harvesters	Forestry Commission
Construction poles	Ngamo Safaris of the Forestry Commission
Bark fibre	Fuelwood vendors from Vic Falls
Reeds collectors	Timber concessions
Fruit collectors	Traditional healers
Healers & herbalists	New settlers under the resettlement programme

Table 15. Livelihood strategies – Chidobe Village

Livelihood strategy	Rich	Average	Poor	Very poor
Livestock	8	7	5	1
Vending	1	6	3	0
Cropping	7	5	2	0
Carving	5	7	8	9
Knitting	0	3	5	1
Selling beer	0	4	6	0
Gardening	0	3	1	0
Club	1	5	2	0
Sell of bush meat	0	25	5	5
Traditional healing	1	3	1	0

Table 16. Livelihood strategies – BH 11 Village.

Livelihood Strategy	Rich	Average	Poor	Very poor
Formal employment	4	6	3	0
Carving	1	4	7	8

Crops	7	5	3	1
Herding	0	0	4	7
Building	0	1	5	2
Thatching	0	0	6	6
Traditional healing	0	0	3	4
Livestock	9	7	3	1
Knitting & sewing	5	1	4	3
Selling thatch grass	0	1	5	7
Remittances	0	4	1	0

Table 17. Livelihood strategies – BH 28 Village.

Livelihood Strategy	Rich	Average	Poor	Very poor
Livestock	7	5	3	2
Crops	8	2	2	1
Formal employment	1	2	1	0
Business	2	3	1	1
Carving	1	1	7	8
Piece work	0	0	3	7

Table 18. Livelihood strategies - Monde Village.

Livelihood Strategy	Rich	Average	Poor	Very poor
Livestock	8	6	5	0
Curios	1	7	7	7
Crops	7	5	2	1
Vending	0	4	5	0
Brick moulding	0	2	7	8
Forest products	0	3	8	9
Tourism	1	3	2	1

Table 19. Livelihood strategies – Chikandakubi Village

Livelihood Strategy	Rich	Average	Poor	Very poor
Crops	8	6	3	1
Livestock	9	6	4	1

Carving	2	5	8	9
Piece work	0	1	6	8
Vending	0	2	6	2
Remittances	2	5	1	0