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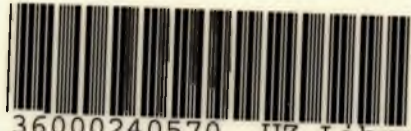


**RESOURCE SHARING SCHEMES FOR STATE  
OWNED LAND IN ZIMBABWE**  
A Discussion Of Conceptual Issues  
Needing Consideration In The  
Development And Planning Of  
Co-Management Regimes

by  
Gordon Matzke  
August 12, 1993

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Centre For Applied Social Sciences\*  
University of Zimbabwe  
P.O.Box MP167  
Mount Pleasant, Harare  
Zimbabwe

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RESOURCE SHARING SCHEMES FOR STATE  
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DEVELOPMENT AND PLANNING OF CO-MANAGEMENT REGIMES

BY

GORDON MATZKE

CENTRE FOR APPLIED SOCIAL SCIENCE  
UNIVERSITY OF ZIMBABWE

AND

DAVID MAZAMBANI  
FORESTRY COMMISSION, ZIMBABWE

August 12, 1993

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## ABSTRACT

This paper examines the concept of "resource sharing" as an emerging co-management strategy for state owned lands in Zimbabwe. Resource sharing aims to provide access for people living on neighboring communal lands to resources on state land while still excluding settlement or transfer of land title.

Research into the current state of resource sharing on the Mafungabusi State Forest is used as a stimulus for examining the significance of boundaries, history, mental maps, and alternative targeted community definitions for resource sharing developments. Based on this examination, prescriptions are offered for the development and planning of resource sharing projects. These include the localization of authority, weighing the merits of existing communal peoples' resource use patterns, creating an appropriate legal framework, the necessity of working on both sides of the tenurial boundary, and a long term commitment including procedures for management adjustments and the resolution of inevitable conflicts.



## PREFACE

This paper is designed to foster discussion of resource sharing concepts as applied to state owned lands in Zimbabwe. It has its origins in the authors' experience with a feasibility study for a resource sharing scheme centered on the Mafungabusi Forest in Gokwe District. In the absence of any clear notion of the basic elements, goals, or design parameters of resource sharing approaches, it was problematic to design research which would contribute to planning for resource sharing outcomes. Since there was no significant literature addressing the concept of resource sharing in Zimbabwe, the authors felt it was important to initiate attempts to fill the void before proceeding too far down the path toward implementation.

There is a danger in quickly moving toward implementation. Even though the principal actors in plan development may see the need for a cautious approach in the face of massive uncertainties, events may overtake them. Donor agencies may have spending guidelines which throw caution to the wind and require rapid implementation. Equally likely, political forces could seize on the sketchy resource sharing notions as something which must be broadly adopted across the country because "Typically, it is the bold scheme with fuzzy boundaries that captures the political imagination." Such schemes rapidly "enter the realm of political symbolism and romanticism. ...By the time technical considerations are permitted, it may be too late to reshape the project." (Ascher & Healy, 1990, p. 165) Even if technical expertise is given consideration, it may suffer from a "Pollyanna feasibility" perspective where political pressures exaggerate the benefits and underestimate the costs (Ascher & Healy, 1990 p. 166). Before this happens to resource sharing schemes in Zimbabwe, a thorough debate of their content and merit is needed.

Resource sharing approaches may offer some prospects for development in Zimbabwe and could be an entirely new approach to the management of resources on state owned land. It is equally possible that they are a disastrous alteration of protected area management regimes, and nothing new at all. Opposite interpretations are possible because there is no clear definition of resource sharing, nor has there been a rigorous debate of the merits of such approaches. By raising resource sharing issues in this paper, it is hoped that a debate is initiated before there is an irrevocable commitment to implementation.

## INTRODUCTION

Conflicts over the control of resources are an integral part of Zimbabwean history from pre-colonial times to the present. Although the country has a substantial endowment of natural resources, the competing claims of different peoples suggest the existing resource base is inadequate to meet all potential demands.

The most often discussed competing claim is between the residents of overcrowded and resource poor communal lands, and the owners of the relatively resource rich and lightly settled commercial farm land. Since commercial farmlands were alienated from indigenous African control, their existence is seen by many as de facto perpetuation of an injustice perpetrated by the former ruling powers. This is an important legacy of the colonial era which is only slowly being addressed in the post-independence era.

The colonial era left an additional legacy which in many ways mirrors the problem of commercial farmland ownership. This legacy is found in the large areas of state owned land which are designated as national parks, safari areas, state forests, and wilderness areas. Although the motives for land alienation with respect to these designated lands may have been more noble, and tenure arrangements different, the process and consequences of its alienation are hardly divisible from those related to commercial farmlands - at least from the perspective of neighbouring communal area residents. In effect, people are denied access to land and resources which formerly were controlled by their ancestors. Often, they are denied access because the institutional perspective which motivated the alienation of land was protectionist and its legacy remains so today. From this perspective, it was essential to place the land into some form of protected area status in order to assure that human access would not reduce it to some less desirable condition. These protected areas became "...icons representing the views of the principal actors in their creation" (Matowanyika, 1992). In Zimbabwe, the principal actors in setting aside protected areas were not the indigenous peoples of adjacent communal land, but agents of the colonial state.

It is unlikely that residents of overcrowded communal lands find state ownership much more virtuous than commercial farmer ownership, especially since more of the state land may appear unused from the perspective of landless farmers. If the prevalence of resource "poaching" is an indicator, it appears that many communal residents have yet to entirely concede the legitimacy of absolute state control of resource lands.

## A DIFFERENT MODEL - RESOURCE SHARING

The Zimbabwe political establishment has not elevated the state land issue to the level of importance accorded commercial land in the fabric of discussions aimed at redressing the inequities of the colonial era. In spite of this, the government has undertaken at least one initiative, the CAMPFIRE Programme, which suggests a willingness to reconsider its contract with communal area people in regard to ownership, management control, and benefit distribution related to resources (Anonymous, 1990).

Some authors (Moyo, *et. al.*, 1991) have called for a new "Resource Sharing Model" which alters the current resource management regimes on both large scale commercial farms, and state lands. The general proposition suggests that resource constraints on adjacent communal areas might be improved by controlled access and sharing of resources from the better endowed land under non-communal tenure arrangements.

For these authors, a new model might improve both resource access and resource protection. If this is true, it creates a "win-win" situation where communal area development prospects are improved even as the owners of adjacent land also gain benefits. If the resource sharing model offers good prospects for a "win-win" outcome, it is worthy of further consideration so that it might move from concept to practice.

It is particularly relevant at this time since the Zimbabwe Forestry Commission has committed itself to a feasibility study aimed at producing a resource sharing plan for one of its indigenous forests, Mafungabusi. If results are favourable, the Commission intends to extend this approach to some additional indigenous forests, and commercial plantations, under its control.

This paper is designed as a springboard for discussion of some conceptual issues needing consideration in the planning for a "resource sharing" approach to the management of state forest lands bordering communal areas. By extension, it may shed light on similar situations under different management and/or tenure arrangements.

## THE CURRENT CONTEXT - THE MAFUNGABUSI EXAMPLE

Any discussion of potential new management regimes must consider the existing circumstances of resource management on state lands. In such a review, it is important to distinguish between the *de jure* and *de facto* situation since the law's requirements are unlikely to be perfectly coincident with the state of affairs on the ground. Certainly in Zimbabwe, there is evidence to suggest a divergence between the protection oriented



legal mandates of indigenous state forests and the use oriented pattern of action by communal area people.

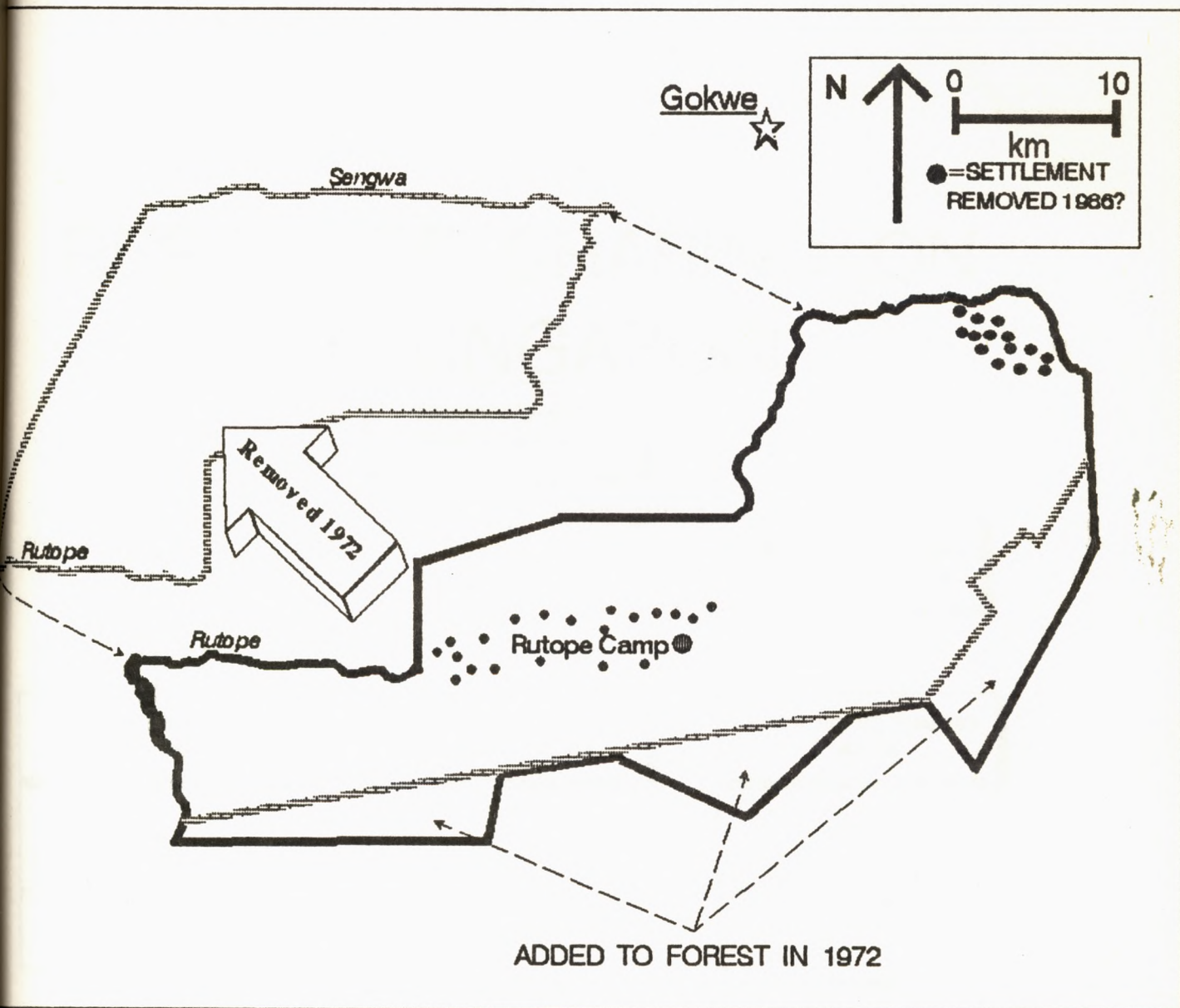
The case of Mafungabusi State Forest, in Gokwe District, is illustrative of the dichotomy between de jure and de facto management regimes. The existing legal mandates for the forest aim at watershed management and protection of indigenous timber of commercial value. Mafungabusi forest is the source of the Rutope, Sengwa, Mbumbusi and Gondoma Rivers, all of which flow into the Zambezi. It is feared that unsystematic grazing in the forest and haphazard cutting of trees will cause more soil erosion and ultimately choke the Zambezi with silt to the detriment of storage capacity for power generation at Kariba. The area was declared a demarcated forest in 1954 primarily because of its role as a catchment area, but also because of the value of its indigenous commercial timber, especially mukwa and teak. The forest's ecological and biodiversity functions also justify its "protected" status.

Legal prescriptions aside, there has been an evolution of forest management in practice on the Mafungabusi. This is to be expected as the Forest exists in an evolving historical, social, political, and environmental context. For example, where once there was settlement, it has not been sanctioned since 22,900 hectares of the forest were effectively transferred to communal land status in 1972 and settlers remaining in the gazetted forest were forcibly removed by the military in 1986 (Figure 1). At the same time, pieces of unsettled communal land just south of the forest were added to Mafungabusi as partial compensation for land transferred to communal control.

Each generation manages a different forest in an ecological sense -- as a result of growth, species colonization & extinction, disturbance and successional processes. It is equally true that each generation applies a different constellation of management tools, as markets, budgets, demographics, technologies, philosophies, and social contexts evolve. One view of current resource sharing management arrangements on Mafungabusi is illustrated in Figure 2.

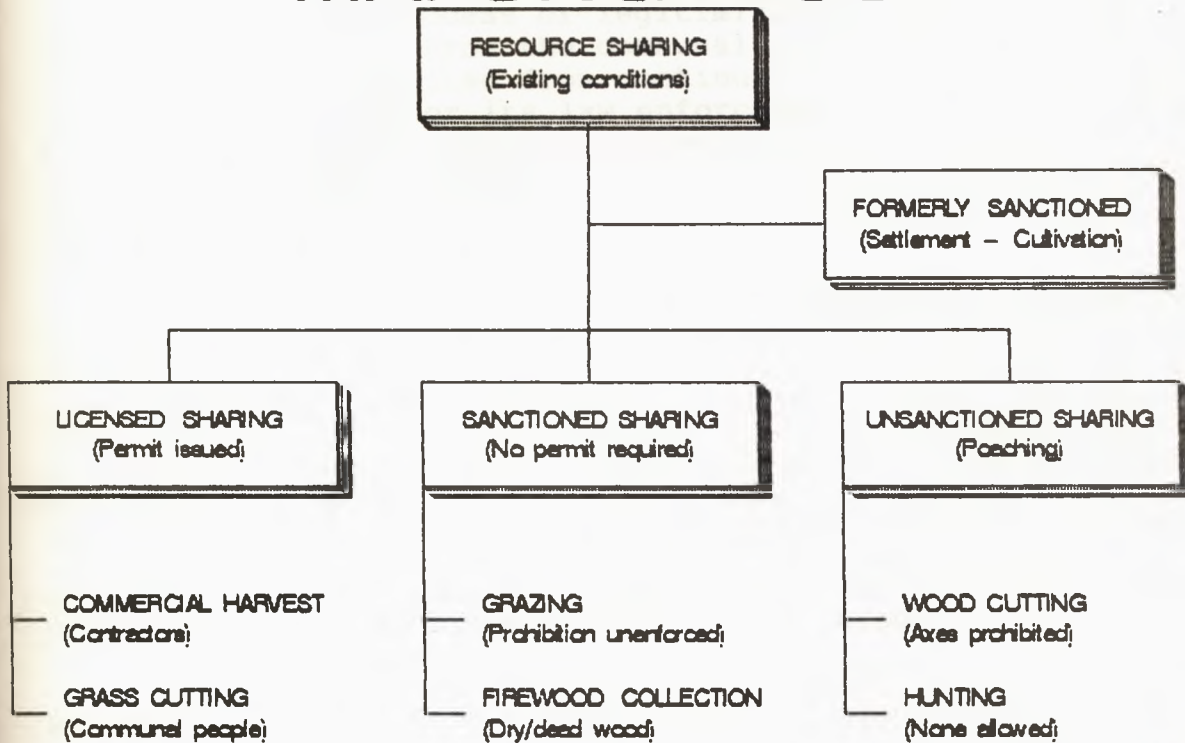
The forest has had a wide range of resource sharing activities since falling under Forestry Commission control. Until 1986, settlement and cultivation were sustained within the forest's boundaries, although in latter years it was over the objections of the Forest managers. Even today, long after the removal of all settlers, parts of the forest's bounty are made available to outside residents through one of three avenues.

Licensed individuals (those issued a permit) are allowed to cut thatching and broom grass on a modified "share cropping" basis, by giving the Forestry Commission (for later sale to the public) two of every five bundles cut. This innovative programme



**Figure 1. Mafungabusi Boundary and Settlement Changes.** The Mafungabusi State Forest was established in 1954 to include more than 100,000 hectares of indigenous forest growing on Kalahari Sands. Since that time, several boundary and settlement changes as detailed above have occurred.

# RESOURCE SHARING ON MAFUNGABUSI



**Figure 2. Resource Sharing on Mafungabusi.** Under current conditions, forest resources are "shared" with communal area residents by one of three means. Certain resource use activities are allowed by the issuance of a special license to applicants, others are sanctioned by the absence of any enforcement of legal prohibitions, while the unsanctioned resource removals threaten the extractors with arrest.



allows even penniless people to harvest the tall vlei grasses which are scarce on the more heavily grazed communal lands. In many ways, this programme serves as a positive example of the benefits derived from including communal farmer concerns in the planning for state forest lands.<sup>1</sup> The farmers get building materials and/or revenue, the Forestry Commission gets revenue (@\$10,000 a year), and the forage base is improved by the removal of the unpalatable portions of range grasses.

The Forestry Commission has also sanctioned the collecting of dead/dry firewood, and livestock grazing, by not exercising the legal right to prohibit trespass for these purposes. The Commission has thereby created an unlicensed and unplanned avenue for resource sharing with communal people. This is less of a model example than that cited for grass cutting because it is sanctioned by local informal agreement, not by a centrally recognized formal process of legitimization understood by all parties concerned. From the communal residents' point of view, they could be prohibited from continued access at the whim of the Forestry Commission or its law enforcement agents. From the Forestry Commission's point of view, the situation is not ideal either. They have created a "tenurial niche" (Fortmann and Nhira, 1992) which will be politically difficult to alter, revoke, or limit in the future.

The size of the existing niche is substantial in the case of both cattle grazing, and firewood collection. An estimated 20,903 cattle used the forest for grazing at times during the past year under an unsupervised management regime (Matzke, 1993-in preparation). Although current stocking levels may not be a problem, nothing in the arrangement gives guidance to those contemplating expanding their herd size. Likewise, a stream of communal area residents enters the forest to collect firewood with no existing prohibition on off-take amounts, unless an axe is used in the procurement process. Nothing in the arrangement prohibits unlimited commercial firewood sales.

Illegal resource sharing, or "poaching", is perhaps the biggest avenue for transference of resources across tenurial boundaries. It involves a wide range of resource uses that, on occasion, result in the arrest of communal people taking unlicensed advantage of the forests' bounty. The arrest records in the Gokwe Forestry Commission office show violations for hunting are commonly brought to book (Vermeulen, pers. comm.). However, everything from unpermitted broom grass harvesting to tree cutting has resulted in the apprehension of "illegal" suspect

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<sup>1</sup> It isn't hard to envision alternative state lands for replications of this approach. For example, transportation rights-of-way and vleis in National Parks located near markets for grass.



citizens. Even the casual observer can see evidence of regular export of building materials (especially poles) from the forest by means of scotch cart transport. Vermeulen (Figure 3) has measured illegal cutting activity on nearly 50% of the trees at the forest boundary and a still high 26% one kilometre into the forest. The intensity of illegal use in the border area has created a management regime centred on pole cutting to service communal resident demands for products which are not formally available through Forestry Commission offices at Mafungabusi.

It is clear that "resource sharing" is alive and well on Mafungabusi without the intervention of a formal plan. Presumably this is the case in many other lands as well. For this reason, it is useful to consider the conceptual basis upon which notions of resource sharing models are proposed. Only after doing this, is it possible to ascertain whether any newly proposed formalized model is a step beyond the currently existing informal resource sharing model.

#### **CONCEPTUAL ELEMENTS INHERENT TO THE RESOURCE SHARING MODEL**

##### **There are Resource Problems on Both Sides of the Boundary**

A resource sharing model must be based on the recognition that no tenurial class has completely solved its resource management problems. Without this recognition on both sides of the protected area boundary, it is unlikely that resource sharing approaches offer much hope as a management model.

It is easy to see the resource problems on the communal side of protected area boundaries as classical illustrations of resource degradation under conditions of population pressure unaccompanied by appropriately adapted cultural/technological changes in the farming system. Vegetation is scarce, erosion common, and wildlife in short supply. For many, these conditions cry out for intervention. As one crosses the boundary to other tenurial regimes, resource problems may be present, but are less obvious to the casual observer.

The land under state and commercial farmer control is less likely to exhibit the physical signs of resource degradation, but nevertheless may have problems potentially addressable through the resource sharing model. Some obvious problems are those of resource related revenue generation, security, excessive management costs, and the insecurity of tenure deriving from those who might covet the land. If these problems can be solved in favour of protected area owners, even while decreasing resource constraints on communal area residents, the stage is set for implementation of a potentially successful resource sharing endeavour. If both sides benefit from the arrangements, the State should not be an obstacle to resource sharing developments.



By taking initiatives to create sharing arrangements, it may reinforce the development and legitimization of its authority over land from the perspective of communal area citizens.

The suggestion that the State of Zimbabwe show leadership by developing resource sharing approaches to its lands is a logical outgrowth of efforts to redress societal inequities working to disadvantage communal land residents. Since the particular local expression of these inequities can often be traced to actions undertaken, or legitimated, by central government, it is reasonable to ask government to seek avenues for redress through new approaches in resource management. Although the Lancaster House independence negotiations accepted this principle (albeit with a lot of strings attached) for commercial farm land, they remained silent as to possible remedies within the tenurial domain of state owned land. With the 1992 Land Acquisition Act, the government of Zimbabwe demonstrated its continued interest in addressing land access issues in the private sector while remaining silent on state land access concerns.

### The Legitimacy of History

History is important to notions of resource sharing on state owned lands. Even though the historical process in Zimbabwe gave central government the "power" to own and manage state lands, it did not automatically give it the "authority" to do so (see Murphree, 1993, for a discussion of the difference between these concepts). Many communal people, especially those linked to strong traditional authority, do not see state tenure as having a priority superseding their own claims to the land and/or its resources, because the State itself never had any legitimacy. Their claims may be justified/rationalized on the basis of either ancestral history, or subsistence needs.

The facts of Zimbabwean independence demonstrated the ultimate relevance of historical ownership claims to the legitimization of authority, and the right to exercise power. Although the colonial regime had the power to assign much of the land to an immigrant population, in the end it failed to solidify its authority in the face of African claims to the contrary.

The relevance of proximate, rather than ultimate, historical claims are likely to be much more important to the planning of resource sharing endeavour. In particular, should a people's historical rights/claims to an area give them priority access to resource sharing benefits from ancestral lands? Should their priority still apply if they are already richly endowed with resources? If so, is it to the exclusion of others? If priority is conceded, how long does it last? Should it supersede proximity, or poverty, or landlessness as a basis for ascertaining appropriate benefit allocation?



History is a legitimate element for policy consideration in answering these questions. However, it must be used to inform the policy and planning process, not to dictate the outcome. To suggest otherwise is to assume that there is only one version of history, that planners are capable of ascertaining that version, and that the policy response to the historical vision it creates is in the interests of all parties concerned. An examination of an area's history may provide information which is valuable to the definition of an appropriate "project affected community", or give insight into avenues for project implementation which are viewed as legitimate by the community residents, but it is unlikely to provide an unequivocally clear cut path to the future.

### Mental Maps and the Basket of Resources

It is very easy for a targeted resource agency, like the Forestry Commission with its focus on trees, to impose a limited vision on the prospects for resource sharing afforded by its control of vast areas of the public estate. This may happen in many different ways. It's vision may be limited only to trees, or to anything but trees. In the first case, it defines its forests by the trees. In the second, it claims the trees for itself and concedes other potential resource benefits to non-agency interests. Likewise, it may view resource sharing as a potential mandate only for indigenous forests, not exotic production/plantation areas designed for fibre production. It may define resource sharing as something applicable to only low revenue generating resources, or limit the concept to specifically mandated resources. If such limitations are the outcome of a serious consideration of the options, they may well be justified. If they are the result of tunnel vision, they should be challenged.

It is very easy to see the development of a new "resource sharing" regime which is simply a grazing scheme using state forest lands when agency silviculturalists have little interest in developing livestock herds of their own. If so, there is nothing much new in the resource sharing concept since silvi-pastoralism is a widespread practice in many parts of the world, even on public forest land.

The concept of "resource sharing" should stimulate planners to examine the full menu before selecting the pieces of the resource complex which are targeted for attention in a particular case. In so doing, it is instructive to consider the alternative mental maps resulting from perceptual differences of forest lands between subsets of the relevant communities. These mental maps highlight pieces of the environment which are especially useful to achieving individual life goals. Several scenarios are illustrative.



The simplest mental map may be that which views the forest as a travel route between one place and another. In a sense, the right to trespass for the purposes of passage to another destination is a resource (i.e. something useful) to communal area people. Management prescriptions which seek to restrict the right of all trespass would face great difficulty gaining legitimacy where people have a right-of-way tradition which meets a real need. In most cases on public forests, the right to "travel space" need not even be considered since common law and practice have firmly established the public's freedom of passage.

The other extreme of perceptions is represented by those individuals who view parts of the forest as part of their land endowment, albeit temporarily wrested from their control by the State. The mental ownership map for these individuals includes every resource which accrues to land owners in other contexts. This is an impossible perception to totally accommodate within the confines of the resource sharing model. Alternative models already exist within the resettlement realm.

There is a wide range of resources which various individuals, or groups, might have resident in their mental maps of resource sharing target areas (Figure 4). This mental list of resources is a reservoir to be drawn upon in developing special rights of access claims in resource sharing negotiations. The list includes potential demands ranging from the most simple to the most difficult to accommodate in the context of Forestry Commission objectives.

#### The Constraints of Managerial Mental Maps

Managers bring their own mental maps to the negotiating table when faced with a potentially endless set of demands for them to "do something". Research on resource managers' environmental perceptions elsewhere in the world suggests they often have a collective world view which constrains their options for action and often differs markedly from the views of the general public (Mitchell, 1989). The constraints are of several types and create an inertia in management approaches. If also true for Zimbabwe, it will make the establishment of effective resource sharing schemes very difficult.

Managers are constrained by their narrow specialty training (e.g. genetics, silviculture, wildlife), peer group attitudes (e.g. resource sharing is not a way to gain positive recognition amongst disciplinary specialists), legal mandates (e.g. there's no legal precedent for new approaches), and contractual obligations (e.g. responsibility for the designated State Forests, not the development of communal lands). The success of resource sharing schemes will hinge, in large part, on the ability of the Forestry Commission to redraw the mental maps of people at many operational levels so that resource sharing is

**Figure 4. The Range of Potential Resource Sharing Demands on State Forests.**

<b>Claimed Right</b>	<b>Likely Potential Claimants</b>
-----	-----
Rights of Trespass and Passage	Neighbouring People
Rights to Perform Rituals	Spirit Medium & Traditional Leadership
Water Rights	Nearby Residents & Livestock Herders
Gathering of Wild Fruits and Mushrooms	Women & People Facing Food Shortages
Collecting of Edible Insects	Women
Broom Grass	Women
Basketry Materials	Women
Bark	Nearby Residents
Pottery Clays	Women
Firewood	Nearby Residents
Charcoal Stock	Men
Wild Honey Gathering	Men
Bee Hive Placement	Men
Medicinal Plants	N'angas
Hunting Wildlife	Men
Safari & Tourist Revenues	District Council, State Agents
Timber Concession Revenues	District Council, State Agents, Communities
Fencing Materials	Communal Land Farmers
Hoe & Axe Handles	Communal Land Farmers
Ox Yoke Timber	Communal Land Farmers
Grazing	Livestock Owners
Construction Materials	Local Communities
Brick Clays	
Poles	
Thatching Grass	
Heavy Timbers	
Merchantable Timber	Concessionaires
Carvable Stones	Artists
Saleable Minerals	Unemployed; Mining entrepreneurs
Cultivation	Former Residents, Landless
Residence	Former Residents
Land Ownership	Former Residents, Landless

seen as a way of improving manager status in the agency pecking order (see Ascher & Healy, 1990, p. 168). If successful, it is more likely that managers and targeted community residents will look at the same menu of resources when considering alternative sharing regimes. The remaining task will be to agree on what to order from the menu, and who is authorized to place the order.

### The Definition of Targeted Communities

Resource sharing schemes can not deliver unlimited benefits to infinite numbers of communal land residents. In many ways, they are an exercise in defining the limits on access to resources which are to be shared. An unstated assumption of resource sharing discussions is that there is a target "community" which defines the group of potential beneficiaries, and around which the co-management discussions will centre. This assumption treats the "community" as a preexisting condition which is both recognizable, and agreed upon by a substantial part of its membership. If communities exist, they must be identified in the process of project development. If identified, they offer "the potential for cost-effective collective local management enforced by informal social pressure and drawing on detailed local knowledge of ecological dynamics." (Murphree, 1992) In the identification process, resource sharing planners could easily confuse the concept of community with that of a mere cohort.

Cohorts are groups of people lumped together by some categorical criterion. For example, they may be of the same age, sex, ethnicity, socioeconomic group, live in the same place, or want access to the same resources. Because people share the same defining characteristic, they are classed as a cohort. As a concept, "cohortness" does not imply anything beyond the shared classificatory criterion used in cohort definition. In short, there can be no a priori assumption that there is "community" within a cohort.

Each resource may define a different cohort with vested interests in the shared outcome. Those with cattle may view resource sharing as access to grazing for themselves, but not for those who might acquire cattle in the future. Those without lands see settlement possibilities, which could work to the detriment of grazing interests. Women may view wild fruits and mushrooms as more important than grazing for the cattle controlled by the men. Importantly, cohort groups are not implicitly expected to operate as collective social units with capacities to define community norms, sanction behaviour, or even have a mechanism to innunciate any form of collective opinion.

The concept of community has far broader connotations than that attributed to cohort groupings. Community concepts evoke collective social units with sanctioned authority and legitimacy derived from processes which the group itself is instrumental in



initiating, maintaining, and adaptively perpetuating. Communities contain many cohorts, and may be coincidental with one or more of them (e.g. a spatial cohort), but the community is defined by its collective processes of identity and action rather than a single categorical criterion.

Relationships between groups of peoples have often evolved to accommodate potentially conflicting cohort demands in many arenas of human activity, and it is possible that resource sharing schemes will create conditions for allocation and coping mechanisms to develop i.e. community. However, the agents of change seeking to facilitate resource sharing developments have to make decisions which inevitably help define the a group of people with which to work. In doing so, they are well served by narrowing their search to groupings which offer prospects for the expression of constructive forms of community behaviour. There are a number of theoretical options to pursue. Broadly speaking, a project affected community can be defined by its non-spatial cohort membership, spatial cohort membership, by existing administrative/political affiliations, or by some combination of these criteria.

### **Spatial Proximity and the Definition of Community**

Spatial proximity has a strong bearing on people's use of forest resources. In the case of Mafungabusi, grazing in the forest falls off dramatically as homestead distance from the forest increases (Figure 5). This being the case, the criterion of proximity is certainly appropriate as one guide to the definition of community. By itself, however, it is unlikely to be definitive since it provides no absolute guide to how close one must reside before being incorporated into the target community. Also, using only the spatial criterion may define a target community which requires the creation of entirely new institutions to represent the newly defined community unit.

The spatial criterion is further complicated because its utility varies substantially between resource user groups. The "range of a good" concept used in economic geography is applicable. Quite simply, resource consumers will travel further to gain access to some goods (resources) than they will for others. Although herdsmen rarely go more than 5-8 kilometres for grazing in Mafungabusi, women who come for the annual grass cutting season have origins as far away as Bulawayo. Unless one is willing to disenfranchise these women, proximity must not be the sole attribute of community definition.

The spatial criterion is also problematic because its properties can often be changed by management decisions which alter its utility. Although the maximum daily travel distance for grazers may create use patterns demonstrating strong distance decay effects, a resource sharing scheme which creates overnight



holding paddocks, water supplies, and diptanks within the forest fundamentally alters these constraints and greatly expands the spatial bounds of a potentially benefited community.

### **Class Membership as a Criterion for Community**

A non-spatial approach to community definition might focus on a particular class of people, in the sense that they share a common trait or resource interest, and therefore form an incipient "community" for operational purposes. This approach effectively equates a cohort with a community and is probably most suited to the situation where there has been a predetermination that resource sharing undertakings will deal with only a limited portion of the resource spectrum e.g. grazing, or is designed to meet some limited objective e.g. provide income opportunities for unemployed school leavers. If resource sharing is more holistically conceived, it is likely that community definition on a class-by-class basis is not feasible.

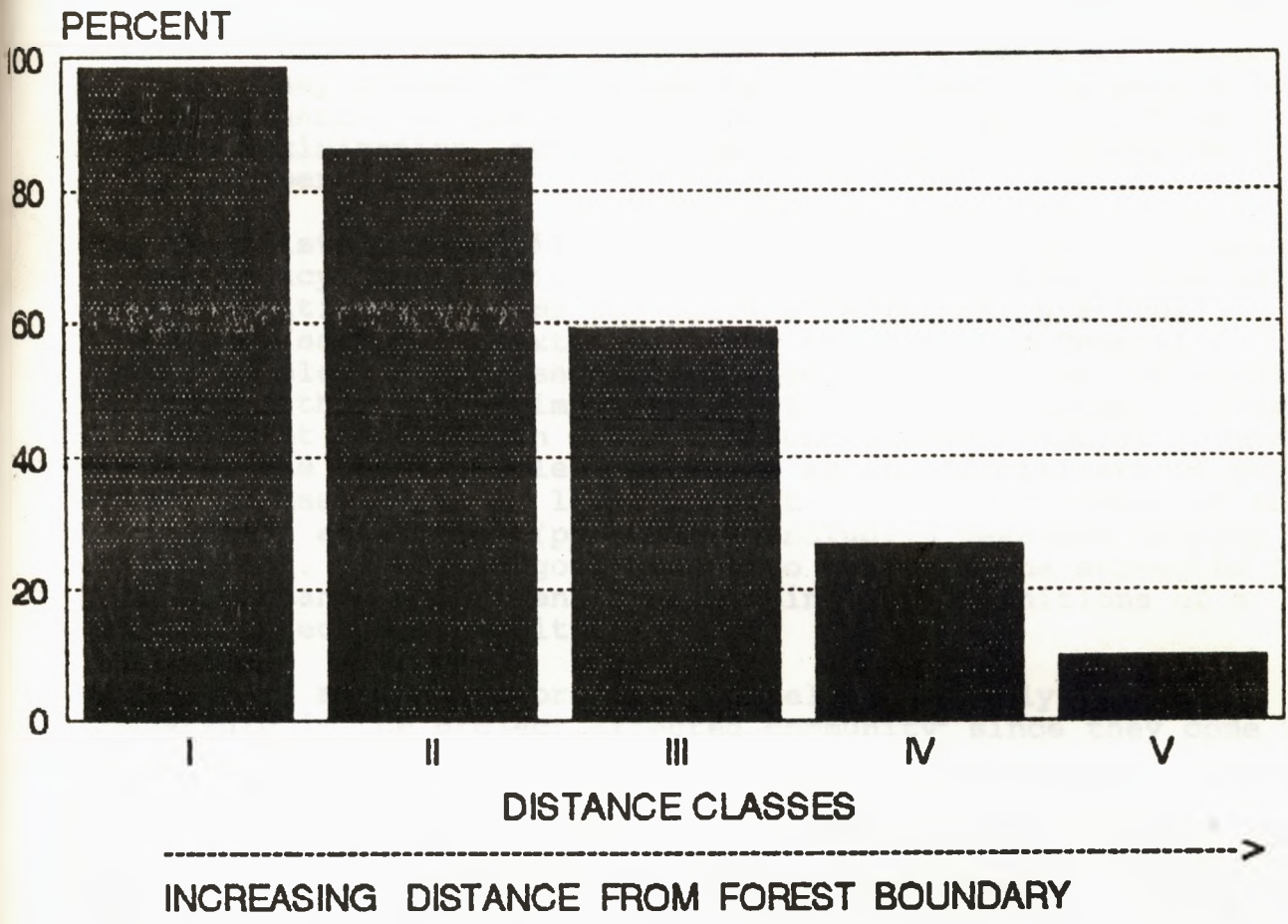
The feasibility of the class-by-class approach is compromised by the nearly infinite number of classes to be defined, their conflicting interests, and the fact that most people are really members of multiple classes simultaneously. Although the use of classes may seem to get around some of the boundary problems of a spatial approach, it simply changes the scale problem from one of space to one of population size, or composition. The vexing boundary problems remain. Although the commercial approaches to forest management have means to solve these problems through the bidding and contracting process, these approaches have yet to be put forward as elements of the resource sharing model. If they are, it is hard to see how resource sharing differs from existing approaches to market oriented forest management, unless it contains an element of protectionism, preferential access, or subsidy afforded to local citizenry.

### **Political/Administrative Units as Communities**

The advent of resource sharing ideas does not demand the creation of a whole new way of governing as could be suggested by some of the approaches to community definition discussed above. Zimbabwe has already suffered through its share of governmental redesign efforts. Just as one system becomes entrenched, another one is invented which fails to entirely erase the imprint of earlier systems. Rather than invent yet one more governance system to implement a resource sharing regime, it might make more sense to graft the new approach onto existing administrative arrangements. In so doing, the choices are not obvious as one confronts the multiplicity of existing structures. Broadly speaking, planners have the option of grafting resource sharing

# DISTANCE VS. USE

## PERCENT OF HERDS



**Figure 5. Distance Vs. Use.** Surveys of 855 herdsmen at diptanks surrounding the Mafungabusi Forest clearly showed cattle from nearby homesteads were most likely to use the forest grazing resources.

administration to the stem of traditional authority structures (Chiefs, Headmen, Sabukus/Kraal Heads), to local authority structures designed by central government (Districts, Wadcos, Vidcos), or to the portfolio of agency administration (e.g Forestry Commission). Each of these approaches has its share of advantages/disadvantages.

Traditional authority structures have waxed and waned in their influence in Zimbabwe history. In spite of attempts to eviscerate their powers, they persist. Therein lies their strength. They persist and maintain a site specific legitimacy because they apparently meet the perceived needs of communities. Centrally imposed governmental regimes have not been able to match traditional authority's ability to adapt decision making to the local context (See Murphree, 1993 for a discussion of this). Their disadvantage is that they are not equally strong in all places, and often are not well articulated with reference to national priorities which transcend the local context. Because of this, they present challenges to those seeking to meld a local resource sharing scheme with broader national goals such as revenue maximization, environmental protection, or adequate future timber supplies.

The District Council is a step removed from the site specific legitimacy of traditional authority, and certainly does not match traditional systems for placing decisions in a local historical/social context. However, the District Council's system of elected representatives ensures that it is not exactly isolated either. Most importantly, the District Council occupies an important position in the mid-ground between central government and the local people. Moreover as an official arm of government, it has the clear legal power to act in many areas of the development enterprise (presumably including resource sharing activities). There is good reason to consider the strengths of this governance unit when contemplating the definitions of a project affected community.

Agency administrators are themselves unlikely contenders for membership in the project affected community<sup>2</sup> since they come to

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<sup>2</sup>Ascher and Healy (1990, p. 171) caution that "state enterprises are often pushed by their own employees to channel the benefits of resource extraction to themselves." Zimbabwe is not immune to this. It has been reported from Nyaminyami that first preference for slaughtered game meat is given to civil servants, rather than to the communal residents for whom it was intended (The Herald, 1993) Also, Derman (personal communication) found in the mid-Zambezi Project that government resettlement officials acquired arable land for themselves through an exercise aimed at providing land to others. Resource sharing monitors must be alert to the danger of members of



the bargaining table because of their administrative mandates and technical expertise. That does not make them irrelevant. By having the stewardship responsibilities for state land, they are the "gatekeepers" to the resources in question. They are the people charged with protecting the national interests which may well transcend the concerns of more local actors (e.g siltation in Kariba reservoir). Without their cooperation, resource sharing schemes could neither develop, nor persist. Since their cooperation is a key part of the enterprise, it is important that their role in the definition of a project affected community be considered carefully. If they don't think the scheme will work, it likely will not work.

## **PRESCRIPTIONS FOR THE DEVELOPMENT OF RESOURCE SHARING PROJECTS**

### **Localize authority.**

Planning for resource sharing should reinforce, not reinvent, existing governance structures in defining a project affected community. The District Council structure, in particular, should not be circumvented. It can be empowered by resource sharing arrangements which give selected ward level committees the responsibility to define community interests, designate potential beneficiaries, and participate in the implementation of management controls for resource sharing. These committees must meld the concerns of traditional leaders, the special circumstances of different classes of people, the spatial proximity of particular residents, and provide a link to higher governmental structures.

Central government, and its parastatal agents, can facilitate resource sharing arrangements by seeking to localize decision making within a broadly supportive policy structure<sup>3</sup>, but it can not be the day-to-day managing agent for resource sharing activities. It is better placed to plant the seed which will grow at the local level. It can provide appropriate legal authority for flexible management arrangements, stimulate discussion of the possible new approaches, provide the technical assistance needed to encourage resource sharing developments, demonstrate a commitment to making them work, clearly specify transcendent national interests, and monitor the outcome so as to be able to suggest corrective action.

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officialdom hijacking benefits for themselves, relatives, and/or associates.

<sup>3</sup>This is similar to other local level resource management problems where Metcalfe (1992) argues "The chances of success ...depend critically on legitimization and support by central Government." p. 9.



### The status quo is not a bad start.

Planning for resource sharing should start with an understanding of the de facto community uses of the protected area. Existing use patterns provide a first approximation of community interest in target resources, the types of people with vested interests in planning outcomes, the scale of resource impacts, as well as the temporal and spatial dimensions of use. Planning interventions developed in the name of resource sharing do not necessarily provide advantages over the status quo from the standpoint of existing user groups, especially if the result is increased access restrictions. Although under conditions of resource degradation, such restrictions may be desirable or necessary, they should not be prescribed in ignorance of their impact on community perception of the benefits of resource sharing.

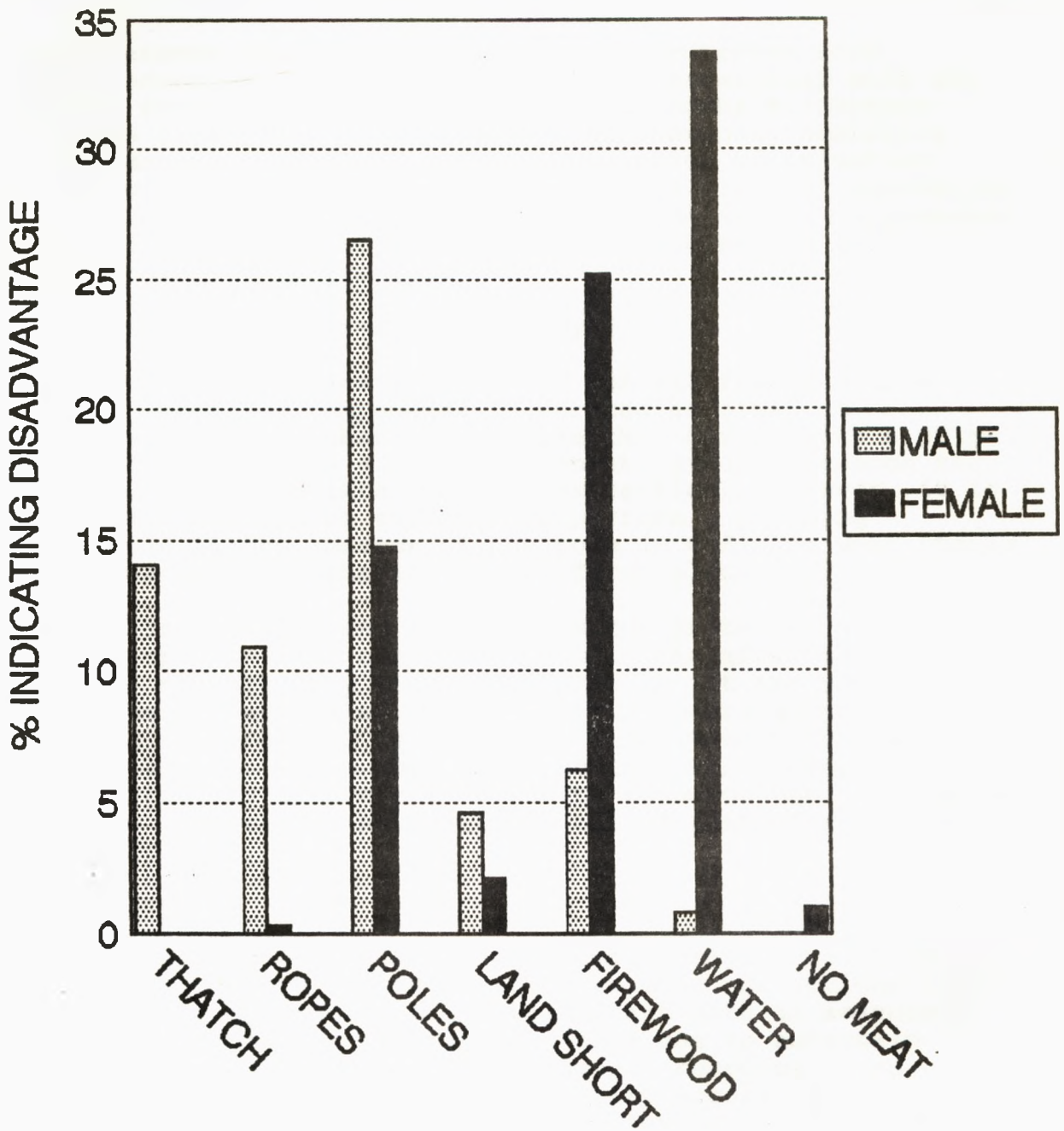
Access restrictions are only one of the potentially confounding changes to the status quo which could prove problematic to resource sharing developments. Planning interventions which alter existing arrangements may increase the cost and decrease the efficiency of resource acquisition when compared to the locally evolved systems currently in place. Although monetary charges are easy to identify as potentially troublesome, even seemingly positive development "benefits" need careful examination. For example, Matzke & Nabane's Masoka study (in preparation) found that a wildlife fence installed for crop protection, but with limited gating, was especially disadvantageous to women because it interfered with their daily firewood collection and water carrying responsibilities (Figure 6).

Status quo resource management is not perfect, nor does it necessarily provide the appropriate model on which to base resource sharing. If it was perfect, parties on both sides of the tenurial boundary would see no need for change. Planning which is sensitive to the de facto operations of the community may find in them a menu of reasonable options upon which to build a new management regime. If nothing else, an assessment of the status quo should assist in avoiding some of the obvious pitfalls attendant to developing management regimes in the face of total ignorance of community actions.

### Make it legal

One of the biggest potential benefits to the State from successful resource sharing developments is a reduction in resource "poaching", or illegal extraction of resources, by people not having legal tenure to the land. A reduction in arrests for "poaching" may also remove one of the biggest

# RESTRICTED ACCESS TO RESOURCES



N = 64 Males and 95 Females

**Figure 6. Fence Disadvantages Are Gender Differentiated.** A study in Masoka Village showed the limited number of gates in the surrounding wildlife fence was mentioned as restricting access to resources needed daily by women and to those needed less frequently by men (Matzke and Nabane, 1993).

irritants between communal area people and protected area management agencies. In community meetings associated with the Mafungabusi study, and another at the Mavuradonha Wilderness Area, it was clear that a prime source of community hostility toward the managing agencies was the perception of injustice associated with the exercise of police powers aimed at preventing poaching. Resource sharing schemes could take several approaches toward eliminating much of the "poaching" problem and its attendant community irritation.

### **Make It Legitimate and Create Authority**

Communities which are expected to benefit from resource sharing are important components in strategies aimed at combatting "poaching" behaviour because they may be both a prime source of offenders, and a principal on-the-ground presence for prevention of inappropriate resource extraction. However, it is unlikely that they can be expected to perform a poaching reduction role in the absence of any role in defining what should be labeled as illegal behavior in the first place.

Centralized government regulations for protected areas are rarely developed in full consultation with the affected communities, nor are they always tailored to fit the special circumstances of particular places. It is understandable that the policing that results is viewed as illegitimate by the policed population. From their perspective, the agency was never ceded the authority to prevent community resource use. There are several ways of creating authority in the context of resource sharing approaches.

### **Change the Law**

The simplest way to eliminate illegal behavior is to change the law, or regulatory approach, so as to make the actions legal. Resource sharing approaches might well start with an assessment of existing prohibitions on protected area use to ascertain whether the national interest in the target resource is so important that it should override community access demands. For example, although people are apprehended for mushroom picking and broom grass cutting in Mafungabusi, it might be difficult to demonstrate any particular national interest in prohibiting such resource use. Why not permit it and focus enforcement resources on those activities which have a higher probability of compromising the national interests in the protected area?<sup>4</sup>

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<sup>4</sup>In the parallel case of the Mavurodona Wilderness Area, the importance of the protected area for broom grass acquisition was highlighted in the results of 66 herdsmen interviews. When asked what resources, beyond grazing, their households acquired from the Wilderness, the frequency of responses was as follows: 28 -



Often, communal area people have no legal recourse to gain protected area privileges enjoyed by others. Although leasing provisions exist for contractors to cut merchantable timber from Mafungabusi Forest, there is no legal way for communal farmers to cut firewood to manageable size, poles for construction, or to acquire an ox yoke from the State Forest. Certainly, a resource sharing scheme should examine the regulatory basis for the total exclusion of communal area people from accessing wood supplies by cutting<sup>5</sup>. Such an examination might look toward opening some legal means of access to controlled resources already available to commercial contractors. It doesn't take much imagination to develop alternatives to total exclusion. For example, local natural resource committees could be empowered to allocate permits to cut previously marked "yoke trees", or issue responsible "axe user cards" to people agreeing to cut only down & dead firewood, or specify one day a month as "axe use day", or designate particular places for pole management.

### **Make It Convenient**

Legally permitted activities can still lead to arrest if the permitting process is not followed. As Marks (1984) demonstrated for hunting in the Luangwa Valley, local residents are effectively disenfranchised by a licensing procedure which allows entry to outsiders and requires sophisticated knowledge of the system, repeated trips to distant central places, friendly "contacts" in permitting agencies, and payment of fees. The result is a clear urban bias in the selection of people who gain legal access to protected resources.

Resource sharing schemes would better serve the protected area's neighboring communal land residents by creating localization of permit granting activity. In the case of Mafungabusi, the centralization of the permitting process in Gokwe, the District Headquarters, imposes a heavy time/ travel/ cost penalty on anyone living far away and wishing to legally acquire broom grass from the forest bordering her/his homestead. If permitting is deemed essential, it need not follow that permits are only issued in central places. Making the permitting process convenient lessens the incentive for illegal behaviour. Empowering local leadership with limited permitting powers also provides a "carrot" which could be used to entice them to apply

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broom grass, 14 - edible insects, 12 - poles, 12 - firewood, 9 - fruits, 7 - thatching, 6 - fibres, 4 - construction materials, 3 - honey, 2 - soapstones, 1 - medicines, 1 - mushrooms.

<sup>5</sup>Nhira and Fortmann (1991) found a similar situation prevails on communal lands where district councils reserve particular species for commercial cut by contractors and make no allowance for legal access by residents.

their own "stick" by helping enforce legitimate restrictions on resource use.

### **Make It Clear**

Illegal behaviour may persist, even when easily permitted legal alternatives exist, if the participants are not clearly aware of the limits to their behaviour required by the existing management regime. Discussions with local residents around protected areas suggest that many are unaware of the centrally administered permitting process. If this is true, it would be impossible for them to avail themselves of such legal resource acquisition strategies as might be available. Heightening community awareness must be part and parcel of resource sharing implementation procedures. If policies are clear and effectively communicated, arrests can more easily be confined to those people who willfully commit violations of regulations which have been legitimized through community participation in their definition. Ignorance of the law will no longer be an excuse. One very good way to make the rules clear is to include communities in their definition and design.

### **Good Planning Looks at Both Sides of the Protected Area Boundary**

Protected area managers could view their responsibilities as being limited to actions within the boundary of the park, forest, or wilderness under their jurisdiction. Successful resource sharing approaches must foster an alternative view in favour of spatially "fuzzy", rather than sharp, boundaries. In such a view, actions on both sides of the legally defined protected area boundary are seen as equally important parts of the equation for successful management. This can be illustrated with management for the provision of poles [for house and granary construction] in communal land residents (Figure 7). In this case, a pole production/cutting buffer zone within the forest is created as an integral part of the resource sharing approach. At the same time, the beneficiary community works to assist in forest protection within the forest while fostering home grown pole production within the communal lands themselves. Although there are many alternatives to the details of this proposal, there really is no alternative to a cross boundary view if resource sharing schemes are to succeed.

Planning for both sides of the boundary places the protected area on one end of the management continuum and the communal area on another. Moving from the communal area to the protected area's interior, one passes through both an interior, and an exterior, buffer zone. The exterior buffer zone includes the homesteads and fields of the project affected community and the interior buffer zone is a band of reserve area specifically managed to accommodate community use of resources which have a limited "range of good" and demonstrate strong distance decay

Figure 7. Alternatives for Protected Area Pole Management.

## A. CURRENT CONDITIONS

Protected Area Manager's  
Communal Area Activities

- 
1. None

Protected Area Manager's  
Reserve Management Activities

- 
1. Supervise commercial contracts for pole cutting if operations are in progress.
- 
2. Use police powers to arrest and prosecute local residents found cutting poles in the protected area forest.

## B. PROPOSED RESOURCE SHARING CONDITIONS

Protected Area Manager's  
Communal Area Activities

- 
1. Assist communities in the formation of resource management committees.
- 
2. Work with the committees to ascertain:
- project beneficiaries.
  - rules for access.
  - enforcement provisions
  - location of "shared" pole cutting zone.
  - permitting process
3. Work with communities on natural resource education.
- 
4. Work with communities to foster local pole production on communal lands.

Protected Area Manager's  
Reserve Management Activities

- 
1. Demarcate a pole cutting management "buffer zone" along the border, but within the protected area.
- 
2. Publicize and communicate with the public the limits and rules for access to resources.
- 
3. Monitor community compliance.
- 
4. Refer offenders to previously agreed upon disciplinary procedure.
- 
5. Educate reserve protection personnel about community policing approaches.
- 
6. Plan for pole production as an integral part of protected area resource outputs.



patterns of use. This is portrayed schematically in Figure 8.

Two examples of the effect of distance on resource use illustrate the utility of a management strategy using a distance decay related buffer zone. Figures 9 and 10 show that evidence of both cutting and grazing human drops off quite quickly in Mavuradonha Wilderness Area bordering Chawarura settlements in Centenary District. The difference between a strict protectionist approach to the buffer zone inside the border, and allowing community access, is a minimal amount of resource use along the fringe (in the absence of settlement advances into the area). The amount of community good will to be gained by enfranchising limited use rights is substantial when compared with the bitterness generated by a continuous police action aimed at prohibiting all use of areas on the margins of core protected areas.

Spatially core parts of protected areas, and resources which aren't expected to exhibit distance decay use patterns need not be managed with the same access provisions provided targetted community residents in the buffer zone. In these circumstances, special permits and prohibitions might well be appropriate. Likewise, it is the core area and specially protected resources which might more appropriately be considered as avenues for the generation of revenues to be shared more broadly with district councils, sponsoring agencies, and surrounding communities. Project affected communities need not be excluded, but their management cooperation is most vital in areas more proximate to their residence. Likewise, it is those areas which they should most certainly be accorded the biggest endowment of shared benefits.

#### Handholding and the Iterative Learning Approach

Resource sharing schemes are unlikely to meet with unmitigated success from the start. Rarely will they offer the prospects of big and immediate revenue streams into community and agency coffers which might reinforce a continuing commitment by all concerned parties. Landholding agencies should not initiate resource sharing approaches unless they are willing to make a long term commitment to community oriented management, can accept that mistakes will be common, and have the management capacity to alter course (without abandoning the community) when mistakes point to a new direction for improvement. Just as it took many years of central government power to destroy many community resource management institutions, so it will take years to rebuild them. In the process, there inevitably will be tension between community and agency interests, as well as between various elements of the community. Good planning will anticipate conflict and prepare to deal with it as it develops.

**Figure 8. Schematic of Protected Area and Buffer Zones**

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**UNTARGETED  
COMMUNAL AREAS**

Communal land wards far removed from state land boundary receive no special project associated benefits other than those which might accrue to the general public as a result of management changes.

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**EXTERIOR BUFFER  
ZONE**

A set of wards contiguous to the targeted state land is defined as a project affected community. Ward residents have a right to earn special access and use benefits on adjacent state land. Focused resource development and education programmes target residents in homestead areas. In return, the community helps develop and support a management plan, including enforcement of any access restriction, or licensing, elements. Formal sharing arrangements are initiated only after communities have developed functioning participatory systems (probably committees).

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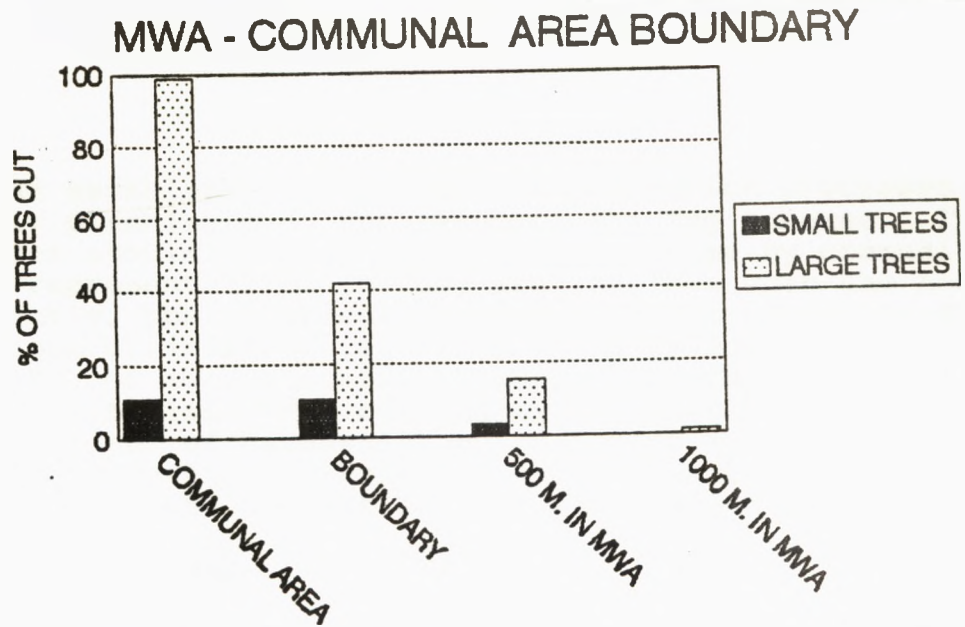
**INTERIOR BUFFER  
ZONE**

A band of state land is managed to meet needs identified by the community. This border management regime may depart substantially from the primary mission of the protected area as now conceived. Access and use is limited to people defined as part of that part the project affected community which is in "good standing" i.e. lives in a ward with an operating system for participating and has met community established access criteria (e.g. has a permit if required).

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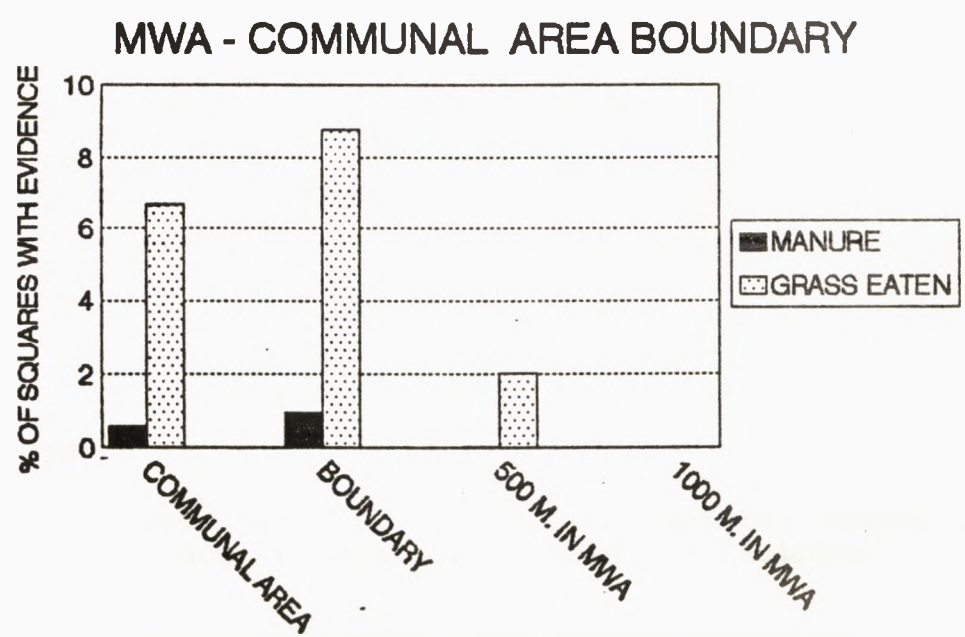
**PROTECTED AREA**

The core protected area is less of an "open community access" area and administering agency goals have priority over community needs. Community use might be restricted to specific uses by permitted individuals. A substantially wider range of community use conditions may be developed when compared to the pre-resource sharing situation.



AVERAGE OF 20 x 20 METRE PLOTS AT EACH DISTANCE (EIGHT TRANSECTS); SMALL TREES ARE LESS THAN 15 CM. IN DIAMETRE.

**Figure 9. Evidence of Tree Cutting on Mavuradonha Wilderness Boundary.** Measurements taken in 20 x 20 metre plots at 500 metres intervals starting inside the communal area show a strong distance decay effect operating (Matzke, in preparation).



% OF 4000 10 X 10 CM. SQUARES MEASURED AT EACH LOCATION (AVERAGE OF EIGHT TRANSECTS)

**Figure 10. Evidence of cattle use on Mavuradonha Wilderness Boundary.** Measurements taken in 4,000 10 x 10 centimetre samples taken at 500 metre intervals starting inside the communal area show a strong distance decay effect operating (Matzke, in preparation).



The establishment of conflict resolution processes should be an early planning goal for resource sharing schemes. These processes should be negotiated ahead of time by community and agency representatives so they are in place when the need arises. Importantly, the processes should be robust enough to deal with assertions of inappropriate activities by members of either the community, or agency staff. Planners should not wait for the first unauthorized tree cutting by a community resident, or the first incident of harassment by protected area policemen to develop a strategy for bringing the incident to a resolution acceptable in the context of resource sharing objectives.

### CONCLUDING REMARKS

Resource sharing ideas are in need of a wide ranging debate before they are moved into the arena of agency policy and action. This paper has laid out a set of ideas which are seen by the authors as relevant to the discussions. Although they are drawn from both research and field experience, they are not set in stone. Rather, they are primarily a set of assertions which seem relevant to the forthcoming discussions within the Forestry Commission, and possibly in other agencies as well. They are now open for challenge and the authors invite the readers to provide alternative perspectives on the issues raised herein.

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