

# POLICY IMPLICATIONS OF COMMON POOL RESOURCE KNOWLEDGE IN INDIA, TANZANIA AND ZIMBABWE

---

## Policy Implications of Common Pool Resource Knowledge: A Background Paper on Zimbabwe

*Marshall W. Murphree and David Mazambani*

*March 2002*

The paper derives from work funded by the UK Department for International Development under its Natural Resources Systems Programme Semi-Arid Production System (Project R7973). This project is joint between Bill Adams, Dan Brockington, Jane Dyson and Bhaskar Vira (Department of Geography, University of Cambridge), Kanchan Chopra (the Institute of Economic Growth, Delhi), Marshall Murphree (Centre for Applied Social Science, University of Zimbabwe) and Issa Shivji (Faculty of Law, University of Dar es Salaam). The views expressed are not necessarily those of DFID. Project details are available on the internet at <http://www-cpr.geog.cam.ac.uk>

# Table of Contents

<b>List of Figures</b> .....	<b>iii</b>
<b>List of Boxes</b> .....	<b>iii</b>
<b>List of Tables</b> .....	<b>iv</b>
<b>List of Acronyms and Abbreviations</b> .....	<b>v</b>
<b>Executive Summary</b> .....	<b>vii</b>
<b>Preface</b> .....	<b>x</b>
<b>1. THE BACKGROUND TO COMMON POOL RESOURCE USE AND MANAGEMENT IN ZIMBABWE</b> .....	<b>1</b>
1.1 Agro-Ecological Zones .....	1
1.2 Tenurial Categories and Land Use Patterns .....	4
Land Use Categories and the Definition of Common Pool Resources (CPRs) .....	4
Defining “Use” .....	4
Zimbabwe’s Shifting Tenurial Landscape.....	6
Tenure and Entitlements in Communal Lands.....	9
1.3 Demography .....	11
Population Size and Growth .....	11
Density.....	11
1.2 Poverty.....	13
Definitions.....	13
National Picture.....	14

<b>2.</b>	<b>COMMON POOL RESOURCES AND THEIR CONTRIBUTION TO THE LIVELIHOODS OF THE POOR .....</b>	<b>17</b>
2.1	The Use of, and Dependence on, CPRs .....	17
2.2	Woodland Resources .....	17
2.3	Rangeland Resources .....	19
2.4	Wildlife Resources .....	21
2.5	CPRs, Poverty and Sustainable Livelihoods .....	25
2.6	CPR Stakeholders .....	28
<b>3.</b>	<b>THE DRIVERS OF CHANGE IN CPR USE AND MANAGEMENT .....</b>	<b>32</b>
3.1	Resource/Demand Relationships .....	32
	Human Demand .....	32
	Resource Availability .....	33
3.2	Tenure Change .....	35
3.3	Commoditisation .....	37
3.4	National Macroeconomic Structures and Performance .....	38
3.5	Information and Knowledge Transfer .....	40
3.6	Other Drivers .....	41
<b>4.</b>	<b>COMPLEXITIES IN CPR POLICY FORMATION .....</b>	<b>42</b>
4.1	Sites of Legitimacy, Cognition and Power .....	42
	State Policy .....	42
	Local Perspective and Structures .....	45
	Disjunction and Stalemate .....	49
4.2	Scale .....	50
4.3	Equity .....	51

<b>5.</b>	<b>KEY ISSUES FOR CPR POLICY IN ZIMBABWE .....</b>	<b>53</b>
5.1	Scale and Devolution .....	53
5.2	Land Redistribution .....	55
5.3	Commoditisation and Equity .....	56
5.4	Organisational Capacity and Costs .....	57
5.5	Process in Policy Formation and Evolution .....	59
<b>6.</b>	<b>QUALIFIED SUCCESS IN POLICY INNOVATION AND IMPLEMENTATION .....</b>	<b>62</b>
6.1	The CAMPFIRE Programme .....	62
6.2	Participatory Agricultural Research and Extension in Masvingo .....	67
6.3	Comparing the Case Studies: Some Implications .....	68
	<b>REFERENCES CITED .....</b>	<b>71</b>
	<b>APPENDIX A .....</b>	<b>92</b>
	<b>APPENDIX B .....</b>	<b>108</b>
 <b>LIST OF FIGURES</b>		
	Figure 1: Natural Farming Regions of Zimbabwe.....	2
	Figure 2: Relation between Income and Human Population Density.....	66
 <b>LIST OF BOXES</b>		
Box 1	Basic information on poverty in Zimbabwe 1995 .....	15
Box 2	A typology of interest groups and their views on scarcity compiled From different group meetings held in both Chiduku and Mutoko .....	31
Box 3	Comparisons of institutions based on perceptions of farmers in Mutoko and Chiduku .....	46
Box 4	Timber concession politics: where national and local tensions meet .....	47

## LIST OF TABLES

Table 1:	Environmental factors influencing agricultural potential .....	3
Table 2:	Land tenure and land use profiles .....	7
Table 3:	Quantity and quality of land acquired for redistribution under the country's reform programme (1980 – 1999) .....	8
Table 4:	Population size and growth .....	11
Table 5:	Population density distribution by natural region and land tenure category .....	12
Table 6:	Percentage changes in population density in selected districts (Regions IV – V) .....	12
Table 7:	Distribution of poverty in Zimbabwe .....	14
Table 8:	Prevalence of poverty according to land tenure categories .....	15
Table 9:	Extent of poverty in selected districts in semi-arid areas .....	16
Table 10:	Cattle ownership in case study schemes .....	20
Table 11:	Sources of draught power in case study schemes .....	21
Table 12:	Order-of-magnitude estimates for selected species in Zimbabwe by land category .....	22
Table 13:	The production of bushmeat in Angwa .....	23
Table 14:	Mean proportion (%) of estimated total household labour opportunity cost allocated to each sector of the household economy in each site .....	25
Table 15:	Sources of household total income, expressed as percentages, across income quintiles: Shindi Ward, Southern Zimbabwe, 1993 – 94 .....	27
Table 16:	Exchange rates .....	39
Table 17:	Legislation that influences use of woodland resources .....	43

## **LIST OF ACRONYMS AND ABBREVIATIONS**

<b>AFC</b>	Agricultural Finance Cooperation
<b>AGRITEX</b>	Agricultural, Technical and Extension Services
<b>CAMPFIRE</b>	Communal Areas Management Programme for Indigenous Resources
<b>CDCS</b>	Centre for Development Cooperation Services, Free University, Amsterdam
<b>CL</b>	Communal Land
<b>CITES</b>	Convention on International Trade in Endangered Species
<b>CPRs</b>	Common Pool Resources
<b>CSO</b>	Central Statistical Office
<b>CVM</b>	Contingent Valuation Method
<b>DDA</b>	Derived Demand Approach
<b>DFID</b>	Department for International Development
<b>DNPWLM</b>	Department of National Parks and Wild Life Management
<b>EIA</b>	Environmental Impact Assessment
<b>ESAP</b>	Economic Structural Adjustment Programme
<b>FC</b>	Forestry Commission
<b>FPL</b>	Food Poverty Line
<b>IIED</b>	International Institute for Environment and Development
<b>IFAD</b>	International Fund for Agricultural Development
<b>LTC</b>	Land Tenure Commission
<b>LSCFA</b>	Large Scale Commercial Farming Area
<b>NCW</b>	National Consultation Workshop in National Land Policy
<b>NGO</b>	Non-Governmental Organisation
<b>NRSP</b>	Natural Resources Systems Programme
<b>ODA</b>	Overseas Development Administration
<b>ODI</b>	Overseas Development Institute
<b>RA</b>	Resettlement Area
<b>RCM</b>	Replacement Cost Method
<b>RDC</b>	Rural District Council
<b>SADC</b>	Southern African Development Community

<b>SASUSG</b>	Southern Africa Sustainable Use Specialist Group, IUCN
<b>SSCFA</b>	Small Scale Commercial Farming Area
<b>TCPL</b>	Total Consumption Poverty Line
<b>VIDCO</b>	Village Development Committee
<b>WADCO</b>	Ward Development Committee
<b>WWF</b>	World Wide Fund for Nature

## EXECUTIVE SUMMARY

1. This report forms part of a larger exercise on the policy implications of Common Pool Resource (CPR) knowledge in India, Tanzania and Zimbabwe, with particular reference to the issues and choices involved in CPR policy and policy processes. The CPRs examined in the study are restricted, by the terms of reference, to woodland, rangeland and wildlife resources, special attention being given to their contributions to household livelihoods in the arid and semi-arid conditions of agro-ecological Regions IV and V of Zimbabwe. Preparation of this report involved documentary and field research and the writing of a first draft April – July 2001. This draft was reviewed at a workshop at Cambridge University in July, by a number of Zimbabwean experts and at workshops in Zimbabwe held in September 2001. Subsequent field work and consultations led to this revised report, presented to a final workshop at Cambridge University February – March 2002.
2. Section One describes Zimbabwe's bio-physical resource base, its demography and poverty profile, and its shifting tenurial landscape. Under government's "fast-track" resettlement programme 10.68 million hectares of large-scale commercial farmland (27% of Zimbabwe's total land surface) have been gazetted as resettlement land, much of it to be managed under common property regimes (section 1.2). Zimbabwe's population is estimated to have stood at 13.5 million in August 2000, with the high population growth rate prevailing in the early 1990s (3.1% p.a.) now slowing down. Population densities are skewed, with districts in Regions IV and V showing high population increases in recent years (section 1.3). Poverty is ubiquitous, but shows higher incidence in communal and resettlement areas (section 1.4).
3. Section Two examines the use of, and dependence on, CPRs in rural areas with special reference to the poor. Almost all rural households use CPRs, this being particularly true of woodland resources which are used for fuel, food and building requirements. Some are also sold in raw or processed forms (section 2.2). The rangeland CPR provides the basis for livestock and crop production, food and capital investment (section 2.3). The use of wildlife includes the local consumption of small mammals and birds, while the value of large mammals, which are unevenly distributed, is largely realized through commoditisation in the CAMPFIRE programme (section 2.4). Dependence on CPRs is difficult to quantify. However one extensive study of five study sites in the Zambezi Valley indicates household allocations of labour for CPR activities to exceed that given to arable activities in three of the five, which may be taken as a proxy of relative values (section 3.5). Evidence on the links between poverty and CPR dependence is sparse although one careful and quantified study shows a positive correlation between poverty and CPR use (section 3.5, table 15).
4. Section Three analyses five major factors in the Zimbabwean context which influence the profile of CPR use. These are "drivers" of change with which any effective policy must deal. Resource/demand ratios are the first of these. "Demand" may flow from several sources but a primary factor is human population size which has increased by a factor of 27 since the beginning of the 20<sup>th</sup> century. The status of CPR supply is difficult to quantify but data are advanced which suggest that a trend towards increased pressure on CPRs exists, even if this is temporarily relieved by resettlement (section 3.1). Tenure changes effected by resettlement are a second driver, creating new CPR regimes with both institutional dangers and opportunities for innovation (section 3.2). The commoditisation of CPRs is a third driver of change which is increasingly manifest (section 3.3). National macroeconomic performance is the fourth driver of change identified and the analysis concludes that current negative economic trends have fostered an urban-rural drift placing greater pressures on local resources and institutions (section 3.4). Information and knowledge transfer is identified as a fifth driver of change, largely with positive results in stimulating innovation in resource management (Section 3.5).



5. Policy not only has to deal with changes in CPR use which arise from the largely external drivers discussed in Section Three, it has also to address the differences in cognition, interest and social location which exist between the primary actors involved in policy formation and implementation. Section Four discusses two sites of cognition, legitimacy and power which in their differences lead to this disjunction, i.e. state policy and local perspectives and structures. State natural resource policy in Zimbabwe, informed by the perspectives of a bureaucratic/scientific establishment, is technicist, centrist and proscriptive in its approach, leading to a policy of “state custodianship and communal wardship.” Local perspectives see this policy as impositional, extractive and ineffectual. The result is implementational stasis since the state does not have the resources to effectively impose its policies, while communities do not have sufficient authority to implement locally-generated policy alternatives (section 4.1). Issues of scale (section 4.2) and equity (section 4.3) amplify this disjunction. The scale issue is one of matching managerial regimes with the imperatives of social and ecological scale. These imperatives call for national state regimes with regard to certain resources, but institutional efficiency suggests localized regimes for many others (section 4.2).
6. Section Five constitutes the core of this report. Responding to the drivers of change and the complexities which make cohesive policy difficult, this section identifies five key issues for CPR policy in Zimbabwe. Returning to the issue of scale and efficiency section 5.1 suggests that a shift to a devolutionist stance, creating collective local regimes with strong legal entitlements, would be the single most important step to revitalizing CPR policy in the country. The analysis recognises however the strong array of forces which militate against any immediate implementation of this approach and discusses alternatives such as the incremental *de facto* appropriation of aspects of devolution. Land distribution is identified as a second key issue, given its magnitude and its potential to produce both positive and negative effects. Scepticism is expressed about the viability of transposing established collective models in communal lands to resettlement lands and the allocation to households of self-contained economically viable farm plots is discussed, with the possibility of the recollectivisation of certain CPRs such as wildlife on a voluntary basis subsequently. Commoditisation and equity is the third issue reviewed. Alternative approaches are discussed, including the collectivisation of CPR enterprise based on the CAMPFIRE model, and the conversion of communal CPR access rights into specific, tradeable assets (section 5.3). A fourth key issue is organizational capacity and costs. The text suggests that devolution is a cardinal input promoting organizational capacity, that collective entrepreneurial costs should be carried internally, and that the costs of state facilitation should be derived by taxation rather than by collection at source (section 3.4). Finally, process in policy formation is identified as a key issue. Currently community participation is marginalized in policy processes, as exemplified in the current Environmental Management Bill. The report recommends that the process of drafting an encompassing set of environmental legislation should be re-started through a commission of enquiry, holding extensive consultations at local levels. The report also suggests that community inputs should not be limited to initial participation; the policy process should itself be an iterative process of unfolding knowledge informing negotiations between all significant stakeholders on a continuing basis.
7. Section Six provides two case studies of qualified success in influencing policy in the face of the current inertia of Zimbabwe’s environmental policy. The first case study reviews the origin and development of the CAMPFIRE programme, initiated by a government department and conceptualised as a robustly devolutionist approach to natural resource use and management in communal lands (section 6.1). The case study shows how, to gain acceptance at the politico-bureaucratic center, the approach had to be attenuated to a devolution of wildlife proprietorship to Rural District Council levels rather than producer community levels, thus compromising its key intent. As a result its performance has been mixed and well below its promise. The case study does however show how a government initiated programme can motivate an approach to CPR commoditisation which promotes equity at intra-community levels and enhances motivations for local organizational control for the use of CPRs on a

sustainable basis. The second example is drawn from agricultural research and extension experiences in the Masvingo Province (section 6.2). Here provincial and district level extension agents of Agritex, working together with NGOs and local farmers, were able to form actor networks across the conventional divides of professional and civil science. As a result 'policy spaces' at local to district levels have opened up, influencing bureaucratic practice and policy stances. The two cases taken together provide interesting contrasts and similarities. With the same general objectives, they exhibit different strategies. CAMPFIRE's approach has been to change the status and structural position of rural actors in the policy process through legislative entitlement. The Masvingo approach has been to exploit policy spaces where new networks incorporating local actors can be configured to enter the policy process. In its frontal approach to the core issue of devolution CAMPFIRE has faltered. The Masvingo approach has been more modest but remains limited to matters of technical knowledge. Access and entitlement thus remain unfinished business, whichever approach is taken. Fundamental shifts in this arena are still to emerge, but in the meantime possibilities for the insertion of local interests and perspectives into the policy process exist and should fully be exploited.

## **PREFACE**

This Zimbabwe Country Report forms part of a larger project exercise on “Policy Implications of CPR Knowledge in India, Zimbabwe and Tanzania,” the overall aim being to establish a common framework for the analysis of common pool resource (CPR) issues to enable decision makers and stakeholders to understand the issues and choices involved in policy decisions. Together with country reports from India and Tanzania this study will contribute to a synoptic over-view of the topic submitted to the sponsors. It is also hoped that this report will contribute directly to policy dimensions on CPR use and management in Zimbabwe. The CPRs examined are restricted, by the terms of reference, to woodland, rangeland and wildlife resources.

The preparation of this report has proceeded in three stages. In the first stage (April – July 2001) the authors carried out a literature review of available documents and conducted interviews with a number of insightful informants, both urban and rural. This resulted in a first draft of the country paper that was presented at a workshop in Cambridge in July 2001 involving all members of the project team and other invited participants. The workshop identified gaps and led to agreement on a revised analytic focus to be incorporated in further work. In the second stage (July 2001 – October 2001) further fieldwork was conducted and two in-country workshops were conducted, at Chilo Lodge in the Chipinge District 17 September 2001 and at Harare 21 September 2001 (see Appendices A and B). Inputs from these workshops and advice from a number of Zimbabwean reviewers of the first draft were incorporated in the third stage (November 2001 – March 2002) which involved the production of the report in a revised format for presentation and review at a second Cambridge workshop in February – March 2002.

The report is laid out in six sections. The first section describes Zimbabwe’s bio-physical resource base, its demography and poverty profile, and its shifting tenurial landscape. The second section examines Zimbabwe’s woodland, rangeland and wildlife CPRs, modes of usage, and their contributions to rural livelihoods. In the third section we identify five areas of transformation that constitute the “drivers of change” in CPR use and management. These are drivers that policy must address, and in the fourth section we discuss the differences in cognition, interest and condition that make policy responses difficult and complex. Against this background section five singles out key issues for CPR policy in Zimbabwe, discussing alternative stances that may be taken. Section six describes two case studies of qualified success in influencing the policy process and discusses their implications for changes in the configuration of future CPR policy formation.

We gratefully acknowledge the many contributions that have assisted in the preparation of this report. These include the critically constructive advice of our project colleagues in Cambridge, Tanzania and India and our academic colleagues at the University of Zimbabwe. Special thanks go to Bill Adams of Cambridge who attended the September 2001 in-country workshops and assisted in the analyses involved. We also thank Alois Mandondo (Chivi District Microcatchment Project) and Solomon Mombeshora and Sobona Mtisi (Sustainable Livelihoods in Southern Africa Project) for co-organising these workshops with us. The Zimbabwean participants at these workshops gave generously of their experience and wisdom and we are grateful to those Zimbabwean reviewers who took the time to provide written comment on the first draft. John Hansell of the DFID Central Africa office provided encouragement and access to reports unavailable elsewhere in Harare. To all of these we offer our thanks, adding that any defects in the report are not their responsibility and should be attributed to the authors.

Marshall Murphree and David Mazambani

# 1. THE BACKGROUND TO COMMON POOL RESOURCE USE AND MANAGEMENT POLICY ISSUES IN ZIMBABWE

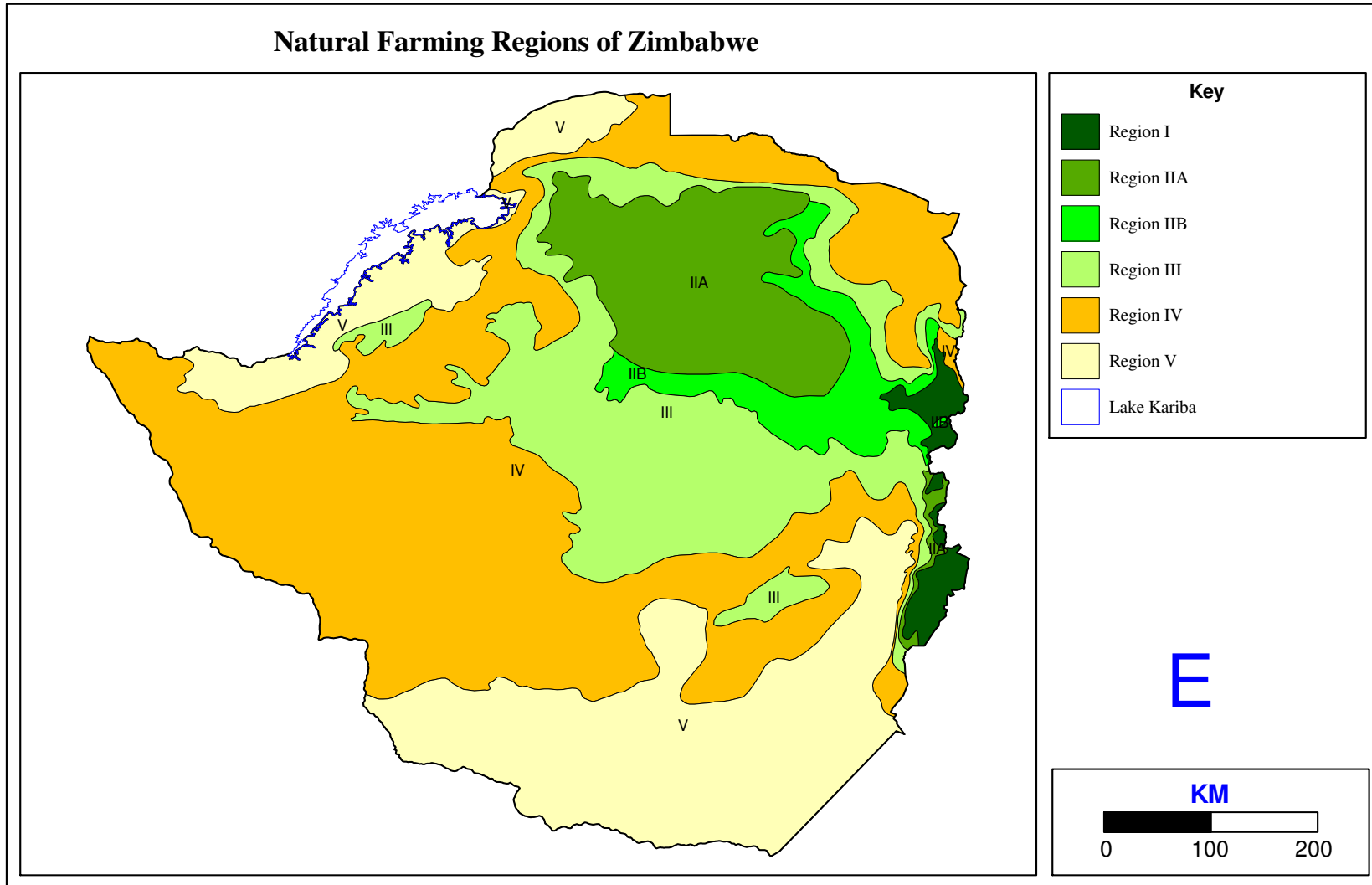
## 1.1 Agro-Ecological Zones

Zimbabwe is situated on the high plateau of Southern Africa, with a total land surface of 390 720 sq. km. There are four main physiographic regions, with the eastern mountains forming a narrow band along the Mozambique border. The rest of the country is characterised by the north-east to south-west watershed – the “highveld” which lies above 1200 m. and descends to the Zambezi River in the north and the Limpopo River in the south-east via series of plateaux, with the middle veld (900-1200m) giving way to the low veld (below 900m). The soils are mainly derived from the ancient basement complex underlying the continent and are consequently predominantly infertile. Apart from the high rainfall areas of the eastern highlands, the country is predominantly wooded savanna with a mean annual rainfall of between 400 and 1200 mm per annum. Some 65 percent of the country receives less than 750 mm per annum (Murphree and Cumming, 1993).

Zimbabwe’s principal ecological zones are reflected in the mapping of the country’s agro-ecological regions pioneered by Vincent and Thomas (Vincent and Thomas, 1961). This mapping classifies Zimbabwe into five natural regions or farming zones, with Region II being subdivided into Regions IIA and IIB (See Figure 1). These regions have been characterised as follows:

- **Region I** - In the *Eastern Highlands*, covering less than 2 per cent of Zimbabwe. Rainfall above 1000mm. High altitude and low temperatures enable afforestation and intensive diversified agriculture including tea, coffee, deciduous fruits and intensive livestock production.
- **Region II** – The *northeastern-highveld* covering some 16 per cent of the country. Reliable rainfall of 750-1000 mm between November and March; suitable for intensive cropping and livestock production.
- **Region III** - Mainly in the *midlands* and covering 18 per cent of the country. Rainfall between 500-750mm, but subject to mid-season dry spells and high temperatures; suitable for drought-resistant crops and livestock. Semi-intensive farming.
- **Region IV** - *Low-lying* areas in the north and south of the country and covering 37 per cent of Zimbabwe. Rainfall between 450-650mm. Subject to periodic seasonal droughts and severe dry spells during the rainy season. Generally unsuitable for dryland cropping and suited to livestock production.
- **Region V** - *Lowland areas* generally below 900 m and covering 27 per cent of the country. Erratic rainfall usually below 650 mm. Suited to extensive livestock production or game ranching.

(Murphree and Cumming, 1993: 149; See also Nhira *et al.*, 1998: 13; Chenje *et al.*, 1998: 143; Katerere *et al.*, 1993: 11-12).



(Source: David Cumming, unpublished, 2001)

Figure 1

Over four decades these categories have been the main policy frame for strategic and regional planning (Moyo *et al.*, 1992: 33). At a broad level of definition they are useful, although it should be noted that they are essentially agro-climatological and tend to gloss over factors important for this study. Whitlow summarises the main factors in agricultural potential in the following table:

**Table 1: Environmental factors influencing agricultural potential**

Main Variable	Significant Properties	Relative Importance
Climate	Rainfall amount and variability	2-10
Soils	Depth, nutrient status, structures, moisture-holding capacity	3-8
Slope	Degree of slope	1,5 – 7,5
Secondary terrain factors	Such as water logging, occurrence of rock domes	Very important if present

(Source: Whitlow, 1980)

The last two of these factors are marginalised in the regional categories described, and it is the intersection of the last three which is usually determinative of detailed land use and resource patterns at local levels. Most large scale commercial farms, and most wards in communal lands, present profiles with a varied segmentation of area reflecting this intersection and this in turn effects the nature, extent and use of common pool resources (CPRs) available. To this must be added the presence or absence of standing water bodies, riverine microenvironments and shallow, seasonably waterlogged valleys at the head of drainage networks (*Dambos* or *vleis*, cf. Whitlow, 1984). These factors critically effect residential patterns, local livelihood strategies and CPR usage, and are not captured in the regional zonation discussed. In effect, zonation by natural region is insufficient on its own to act on as an indicator of CPR usage, being inadequately disaggregated for this purpose.

These *caveats* having been made, we can for the purposes of this study take Regions IV and V as being the areas of Zimbabwe for focus of our attention. They are characterised by “semi-arid production systems,” defined by NRSP as systems “in regions characterised by low and erratic rainfall and low soil fertility, both of which constrain productivity.” As indicated above, these two regions constitute 64 per cent of the land surface of the country. Correlations between these regions and

demography and poverty are dealt with below.

## 1.2 Tenurial categories and land use patterns

### Land tenure categories and the definition of common pool resources (CPRs)

Officially designated land tenure categories in Zimbabwe critically determine our definition of common pool resources and the scope of this study. The definition of what constitutes a “common pool resource” can be derived from two perspectives. In the first instance definition rests on the nature of the resource concerned, leading to the classic definition of common property resources as “a class of resources for which exclusion is difficult and joint use involves subtractability” (Berkes and Favar, 1989: 7). In the second instance the term relates not to the nature of the resource concerned, but to the regime that regulates it. In this case de jure determination is definitive and thus our treatment of the topic must consider resources in areas where some form of collective use is legally mandated. In the Zimbabwean tenure context we are thus dealing with those areas designated as communal and resettlement lands. Both of these categories are formally state land, but with arrangements for various forms of delegated authority or usufruct rights by sub-government entities or individuals.

This definitional focus should not blind us to the fact that de facto circumstances can create common resource pools at levels below those set by de jure determinations, nor should it lead us to the assumption that tenure designations necessarily imply operative regimes of CPR management. Where these do not exist, open access situations may occur. Open access resources are those that are available to anyone and effectively the property of no one. “This condition can arise when there is no demand for or perceived scarcity of the resource concerned and thus no collective attempt to control its use. More frequently, however, open access situations are the result of ineffective resource rights regimes, which claim authority over a resource but lack the means to fulfil the responsibilities involved. This can apply to individual, communal or state regimes but is particularly true of state bureaucracies which typically base their legitimisation on legislation rather than capacity.” (Murphree, 1997a). The vacuum in control and management can have serious equity consequences, particularly when dealing with rural poverty. This is a theme to which this report subsequently returns.

### ***Defining “Use”***

The definition of “use” also requires comment. In conservation circles “use” is frequently equated to consumptive or extractive activities. We prefer the definition of the Southern Africa Sustainable Use Specialist Group (SASUSG): “Use is the derivation of benefit (tangible or intangible) in one or more of the following respects – economic or financial; social or cultural; political; ecological (productivity, stability and biodiversity)”. (Southern Africa Sustainable Use Specialist Group, 1998: 6). This

definition effectively equates use with value and avoids the implication that so-called “non-use” does not carry costs.

In discussing the multiple values of biodiversity, Koziell posits six categories of value, namely: subsistence, tradable values, environmental services, informational and evolutionary values, future options, and existence values. (Koziell, 2001: 22) These categories of biodiversity value can easily be transposed to indicate the modes of use to which CPRs can be put. To the six values mentioned we would add the potential of CPRs to stimulate institutional resilience, a point to which this report later returns.

This report will concentrate on the subsistence and exchange values of CPRs, and to a lesser extent on their environmental services functions. At present research on the values of Zimbabwe’s biogenetic diversity is in its infancy, and there are only passing references in the literature to the intrinsic or existence values of CPRs. Recreational values have received some attention (e.g. Child and Heath, 1989) and their tourism potential is mentioned later in this report.

In terms of their subsistence and exchange values, Zimbabwe’s principal common pool resources can be categorised under the following categories: rangeland resources, woodland resources (including insects and fungi), wildlife (mammals and birds), water, aquatic resources (primarily fisheries, but including crocodiles), and minerals and stone. This list does not include microbotic organisms, nor does it include abiotic resources such as air (which might not be abiotic!) and wind. All of these might be considered CPRs in a broader analysis but are not included in this report as being outside our brief. Sites of touristic attraction do constitute a CPR resource in certain circumstances, and are considered.

All the resource categories listed could be considered “land-based,” and Zimbabwe lacks the common CPR of a marine environment since it is a land-locked country. Water and aquatic resources are a special case, and are critically central CPRs. However, these fall outside our terms of reference. We have, however, taken some institutional examples on CPR management from the literature on dambos because of their ubiquity (particularly in Region III) and the general relevance of the data. Mineral resources are not discussed. To summarise, this report concentrates on rangeland, woodland and wildlife resources, each of which are central in examining the nexus between CPRs and poverty alleviation in the communal and resettlement lands of Zimbabwe.



## ***Zimbabwe's Shifting Tenorial Landscape***

At Independence in 1980 Zimbabwe inherited a politically and racially linked tenorial landscape comprised of the following categories:

- Large Scale Commercial Farming Areas (LCFAs) mostly white owned and under freehold or leasehold.
- Small Scale Commercial Farming Areas (SSCFAs) largely under black ownership on a freehold or leasehold basis.
- Communal Lands
- State Farms
- National Parks, Forestry Estate and other State Land
- Urban Areas

Land allocation had been a major issue in the liberation war and a further category of Resettlement Land gained increased attention. Technically State land, occupation and use was to be along the lines of the following models:

- Model A in which an individual household received 5-6 ha of arable land with provision of 20-200 ha of communal grazing according agro-ecological potential of the land, characterized by dispersed settlement.
- Model B where existing farms were run as collective co-operatives, characterised by nucleated settlement with communal living and co-operative farming;
- Model C where there is intensive resettlement of small-holdings around a core estate;
- Model D is the use of state ranching land for grazing livestock and harvesting wildlife by neighbouring communities with a concurrent rehabilitation of communal grazing land, the introduction of grazing schemes and infrastructural development. (Moyo *et al.* 1992: 65-66)

Table 2 compares the distribution of land according to the tenure categories as inherited at independence in 1980, and the situation in 1997. This table illustrates the dramatically skewed distribution of land that prevailed prior to and after 1980, and the fact that by 1997 the change in the percentage distribution of land remained relatively minor.

**Table 2: Land tenure and land use profiles**

Land Category	1980		1997		Land Tenure Profile	Land Use Profile
	Million ha.	%	Million ha.	%		
LSCFA	15.5	39.1	12.1	30.6	Freehold and leasehold	Under-utilized, largely unregulated, market-led
SSCFA	1.4	3.5	1.4	3.5	Leases and leases with option to purchase	Regulated through conditions and covenant in leases but lack of enforcement
Resettlement Areas	-	-	3.6	9.1	Permits	Top-down management
Communal Lands	16.4	41.4	16.4	41.4	Customary tenure, permissive rights	Regulated by laws, and law enforcement doubtful perhaps selective
State Farms	0.3	0.8	0.1	0.3	Freeholds, leaseholds, statutory allocation	Minimal regulations, uncoordinated
National Parks, Urban	6.0	15.2	6.0	15.2	Statutory allocation; Urban: freeholds and leaseholds	Uncoordinated, subject to abuse, Urban: regulated
<b>TOTAL</b>	<b>39.6</b>	<b>100.0</b>	<b>39.6</b>	<b>100.0</b>		

(Source: Shivji, et al., 1999: 10. Note that the Forestry Commission Estate is included under "National Parks, Urban")

**Table 3: Quantity and quality of land acquired for redistribution under the country's reform programme (1980 –1999)**

Natural region	Size of Land acquired (hectares)	Land acquired in natural region as % of total land acquired	Total Land in natural region (hectares)	Acquired land as a % of total land in natural region	Acquired land as a % of total land
I	169 872	4.8	700 000	24.27	0.43
II	740 405	20.9	5 860 000	12.63	1.90
III	1 123 169	31.7	7 290 000	15.41	2.87
IV	1 097 014	30.9	14 780 000	7.42	2.81
V	414 545	11.7	10 440 000	3.97	1.06
<b>Total</b>	<b>3 545 006</b>	<b>100.0</b>	<b>39 070 000</b>		<b>9.10</b>

*(Source: Compiled from various Government documents. The minor discrepancy between these figures and that given for resettlement in Table 2 is noted).*

Table 3 provides detail on the land acquired for resettlement between 1980 and 1999. Most of the resettlement that took place proceeded under Model A. In one interesting case in the Southeast Lowveld initiation under the Model A approach was followed, at the settlers' request, by sub-division into 40-90 hectare plots allocated to households with exclusive rights of occupancy and use. Holdings are heritable and may be traded or sold, but only within the designated resettlement area (Chizvilizvi). This in effect is an additional "model" somewhat akin to the SSCFA category but without radical title.

In early 2000 land reallocation took on a heightened political saliency, fed *inter alia* by Government perceptions that it was losing support in its rural constituencies because of the slow pace in land reform. Government consequently instituted a "fast track" resettlement programme, gazetted farms and ranches for the compulsory acquisition of land. Criteria for acquisition were stated to be : a) derelict land, b) under-utilised land, c) ownership of multiple units, d) foreign owned land, and e) land adjacent to communal lands. In practice these criteria do not appear to have been applied consistently.

Between June 2000 and August 22, 2001 5931 farms and ranches were designated in 26 sequential "batches", representing a total of 11.725 million hectares. Of these 244 holdings, representing 1.045 million hectares, were subsequently delisted. Net designation thus stood at 10.68 million hectares as at 22 August 2001, and the LSCFA has shrunk to 1.4 million hectares or 3.5% of total land surface. Land under the resettlement category now stands at 14.2 million hectares, or 38.5% of land

surface. (Figures in this paragraph abstracted from Government gazettment notices and various documents.)

Although various policy statements have been made, Government's intentions for the 10.68 million hectares reclassified as resettlement are not as yet completely clear. Presumably much of this land will be resettled under the Model A and Model B profiles, and much of this has already started. However Government has also begun to allocate existing properties (or portions thereof) to black Zimbabwean recipients on a leasehold basis, implying that Government intends to keep the large-scale commercial farming sector in place. Sizes of commercial holdings are likely to be reduced, however and in this regard the Minister of Lands, Agriculture and Rural Resettlement recently reiterated a statutory instrument enacted in December 2000 which, with certain exceptions, restricts the maximum size of holdings to 250 hectares in Region I, 350 hectares in Region IIa, 400 hectares in Region IIb, 500 hectares in Region III, 1500 hectares in Region IV and 2000 hectares in Region V. (The Herald, 22/11/2001).

A clear profile of land and resource use patterns on resettlement lands thus has yet to emerge and it is not certain what proportion will be managed under collective or individualised regimes. It is reasonable to predict however that considerable resettlement land will be managed under circumstances where resources are held under common pool arrangements and that in these contexts the nexus between CPRs and poverty will continue to be an important issue. For these contexts arrangements are likely to be similar to those pertaining in communal lands.

### ***Tenure and Entitlements in Communal Lands***

In communal lands land is held under customary law and is cultivated by smallholder farmers. Each farmer has occupation and usufruct rights, but no ownership rights. Land is given to the head of the household who is male, but can be inherited by widows. Therefore, all adult men who are recognized as members of a village are in principle entitled to arable land. Prior to 1984, when District Councils were introduced, allocation of land for arable use was the prerogative of traditional leaders, that is *sabhukus* (at village level) and chiefs. Today, this is now the formal responsibility of the Rural District Council, although in practice traditional leadership often continues to exercise this prerogative. Although the structure of land holdings within communal lands is fairly egalitarian, variations in access to land exist. In some communal lands, for example, "older men have between 7 and 10 acres ... while younger men who were allocated land in the 1980s have much smaller land holdings, normally only three to four acres" (Masst, 1994: 43).

Beyond these individualised household entitlements, the rangeland, woodland and wildlife resources of the village are considered a collective commonage. In some circumstances several villages will share these collective commonages. (Mandondo 1998).

After 1980 and prior to 2000, two hierarchies of governance systems affecting natural resources management and utilization co-existed in the communal areas, that is, the traditional and modern hierarchies. The traditional institutions that were relevant to the management of land and other natural resources were the chief (*mambo*), the headman and the village head (*sabhuku*). The chief's responsibility is to ensure that land and its natural resources are used in accordance with the law. The headman (*sadunhu*) enforces all environmental conservation and planning laws including adjudicating on field boundaries. The *sabhuku* presides over the village assembly and ensures the implementation of regulations governing the use and occupation of communal and resettlement land (Emerson, 2000).

Institutions under the modern hierarchy were introduced following under the 1984 Prime Minister's Directive, which ushered in the introduction of District Councils, Ward Development Committees (WADCOs) and Village Development Committees (VIDCOs). "Although VIDCOs and WADCOs were formed to assist in the planning and management of common property, they were too politicised and had limited capability in the sphere of natural resources management. As a result, traditional institutions retained the confidence of local people and continued to perform functions such as the distribution of land for cropping" (Emerson, 2000).

In 2000 new governance structures were introduced under the Traditional Leadership Act (Chapter 29:17) Where this has been implemented at the village level, there is now an assembly comprising all inhabitants of the village. Among the functions of the village assembly is "to consider and resolve all issues relating to land, water and other natural resources within the area" (Chapter 29:17, p.371). The village head (*sabhuku*) now presides over the village development committee, which is a committee of the village assembly.

## 1.3 Demography

### Population Size And Growth

Zimbabwe's population was estimated to be 13.5 million in August 2000 (CSO, 2001). Approximately 70% of this population is rural. Table 4 below shows the estimated population sizes and growth rates for the country from 1982 to 2000. The estimates are for August of each one of the years. In the early 1990s the country's population was expected to double in 23 years time (CSO, 1998) given that the growth rate was 3.1% in 1992. However, the CSO's population projections after 1992 suggest a slowing down in the growth rate.

**Table 4: Population size and growth rates**

Year	Population (000s)	Growth Rate %
1982	7 608+	3.0
1992	10 913+	3.1
1997	12 294*	2.3
1998	12 685*	2.3
1999	13 079*	2.4
2000	13 476*	2.3

(Sources: + Census figures – CSO, 1998; \* CSO annual projections)

### Density:

The country's average population density is 35 people per km<sup>2</sup>. While this national average is low, there are significant variations between the distribution of population density by natural regions and land tenure categories (Table 5). Population densities in most communal lands are much higher than the national average. There are more people in the communal lands than in all the other land categories.

**Table 5: Population density distribution by natural region and land tenure category, 1992**

Natural Regions	Land Tenure Category			
	Communal	Large Scale Commercial	Small scale Commercial	Resettlement
	<i>No./km<sup>2</sup></i>	<i>No./km<sup>2</sup></i>	<i>No./km<sup>2</sup></i>	<i>No./km<sup>2</sup></i>
I & II	58	20	17	18
III	47	7	12	13
IV	24	3	8	12
V	21	4	7	3
Mean	32	10	11	11

(Source: Nhira et al., 1998)

The available data indicate significant increases in density from 1982 to 1992 (Table 6). Such increases have important implications for semi-arid regions where most of the country's communal lands are situated, and where there is a high degree of dependence on common pool resources.

**Table 6: Percentage changes in population density in selected districts (Regions IV – V)**

District	Population density 1982 (people per km <sup>2</sup> )	Population density 1992 (people per km <sup>2</sup> )	% Increase in Density
Mudzi	16.9	27.3	61.5
UMP	23.5	32.5	38.3
Rushinga	20.8	33.3	60.0
Buhera	31.2	38.0	21.8
Binga	6.1	11.3	85.2
Tsholotsho	11.6	14.5	25.0
Gwanda	15.8	21.1	33.5
Bulilimangwe	17.1	22.0	28.7
Nyaminyami	2.7	7.6	181.5

(Source: Compiled from various CSO reports)

The HIV/AIDS pandemic, which is rife in Zimbabwe, has contributed to the slowing down of population growth rates mentioned earlier. This pandemic has struck particularly at economically productive age cohorts and undoubtedly has contributed to an urban to rural population shift, where affected persons or their juvenile dependents have moved back to rural homes for family support, often provided by the elderly whose energies and resources are severely stretched to meet this demand.

## **1.4 Poverty**

### **Definitions**

Poverty has been characterized as “a serious threat to human dignity and the most visible sign of underdevelopment. Poverty creates social and political instability, and obstructs all development efforts as it forces people to concentrate on their daily struggle for survival” (Fiedler-Conradi, 1999). In Zimbabwe, like many other countries in Africa, poverty is a subject that has received significant attention from governments, the NGO fraternity and academia. As a result, several studies and assessments have been carried out and have produced useful reference materials for the current analysis.<sup>1</sup>

The Poverty Assessment Study Survey (1995) defined poverty as: “the inability to afford a defined basket of consumption items (food and non-food) which are necessary to sustain life.” In the above definition, the food basket (FPL) should satisfy the nutritional requirements of a population taking into account both the main consumption patterns in rural and urban areas and also local prices. The cost of the non-food component of the consumption basket is then added on to the cost of the food basket to give total consumption requirements (TCPL).

---

<sup>1</sup> Poverty Assessment Study Survey Report, Government of Zimbabwe, 1995  
Poverty in Zimbabwe, CSO, 1998  
Zimbabwe Human Development Report by UNDP/PRF/IDS, 1998  
The Urban Poverty Datum Line in Zimbabwe, by Verity S. Mundy, 1978.  
A Rural Poverty Datum Line in Zimbabwe measured in Hurungwe by Brian MacGarry, 1996



### National Picture

Zimbabwe faces an increasing incidence of poverty. Table 7 below shows the distribution of poverty in the country. The situation at the national level, as summarized by Fielder-Conradi (1999) in Box 1, depicts a striking difference between urban and rural poverty. In 1995/6, three quarters of all rural households lived in poverty; while in the cities, this applied to 40% of the households. Measured by numbers of people, 86% of the rural and 53% of the urban population were viewed as poor.

**Table 7: Distribution of poverty in Zimbabwe**

PROVINCE/SECTOR	POVERTY CATEGORIES (%)		
	<i>Very Poor</i>	<i>Poor</i>	<i>Non-poor</i>
National	46	16	38
Rural	57	15	28
Urban	25	21	54
Communal	68	13	19
Large scale commercial farming	30	21	49
SSCF & Resettlements Areas	54	13	32
<b><i>Provinces (rural)</i></b>			
Manicaland	64	12	24
Mashonaland Central	48	19	33
Mashonaland East	61	15	24
Mashonaland West	50	19	33
Matabeleland North	57	13	30
Matabeleland South	51	17	32
Midlands	56	16	28
Masvingo	63	11	26
<i>Notes:</i> 1. Persons whose income is not enough to buy the food basket are described as very poor, while those whose incomes are below the TCPL, but above the FPL are described as poor. Non-poor are people whose incomes are above the TCPL. 2. Figures for the provinces exclude urban areas.			

(Source: *Chenje et al, 1998: 61*)

### Box 1

#### Basic information on poverty in Zimbabwe 1995

- 61% of Zimbabwean households are poor
- 76% of the population are poor
- 45% of households are very poor, that is, they cannot meet their basic physical needs
- Poverty is much more widespread in rural areas (75% of households) than in urban areas (39% of households)
- Urban poverty is growing relatively faster than rural poverty
- In terms of the inequality of property and income distribution, Zimbabwe stood in fifth place in 1990 worldwide; the situation has worsened since then
- In the world rankings of the human development index, Zimbabwe's situation has deteriorated from ranking 111 out of 160 countries, to ranking 130 out of 174 countries
- Households with female heads are more badly affected by poverty than those with male heads
- 23% of the population have no access to safe drinking water
- 20% of all adults are illiterate
- 17% of the population die before reaching the age of 40 years
- 13% of children under 5 years are undernourished
- 9% of the population have no access to health care.

(Source: Fiedler-Conradi, 1999: 9)

Within the rural areas, there are distinct variations according to land tenure categories as shown in Table 8, below.

**Table 8: Prevalence of poverty according to land tenure categories**

Land tenure categories	% of poor, including very poor	% of very poor
Communal areas	82	57
Small scale commercial farms	66	33
Large scale commercial farms	56	27
Resettlement areas	88	57

(Source: Fiedler-Conradi, 1998)

Table 9 presents the poverty status of some communal areas that are situated in the semi-arid areas.

**Table 9: Extent of poverty in selected districts in semi-arid areas**

Districts	Natural Regions	Percentage of total households		
		Very poor	Poor	Non-poor
Mudzi	IV	82	7	11
UMP	IV	69	10	21
Rushinga	IV	73	7	21
Buhera	IV & V	75	14	17
Binga	V	85	7	8
Tsholotsho	IV	60	16	24
Gwanda	IV & V	62	20	18
Bulilimangwe	IV & V	49	18	33
Nyaminyami	V	85	5	9
Hurungwe	IV & V	67	16	17

(Source: Extracted from various CSO sources)

## **2. COMMON POOL RESOURCES AND THEIR CONTRIBUTION TO THE LIVELIHOODS OF THE POOR**

### **2.1 The Use of, and Dependence on, CPRs**

“Almost all the rural population of sub-Saharan Africa – and many urban people too – are CPR users in one way or another” (IFAD, 1995: 6). This general statement, particularly when applied to subsistence use by people living in communal and resettlement lands, is true for Zimbabwe. Beyond subsistence use there is ample evidence to suggest that the exchange values of CPRs is an important factor in household economic strategies, a factor which is increasing in importance through commoditisation and the linkages between the rural and urban economies. In this section we examine this use of, and dependence on, the three CPRs which are the focus of this report.

### **2.2 Woodland Resources**

Zimbabwe’s woody vegetation covers 65.7% of the country’s total land area. This vegetation falls into five main categories, each being characterized by the dominance of one or more species. The dominance of key species in each of these woody vegetation types is determined by ecological conditions such as climate, geology, altitude and soils. The five major types of woody vegetation are:

- closed natural forests (montane and riparian);
- miombo woodlands (dominated by *Brachystegia spiciformis* in association with *Julbernardia globiflora*);
- teak woodlands (dominated by *Baikiaea plurijuga* in association with *Pterocarpus angolensis* and *Guibourtia coleosperma*);
- mopane woodland (dominated by *Colophospermum mopane*); and
- acacia/combretum/terminalia woodlands (dominated by *Acacia spp.*, *Combretum spp.* and *Terminalia sericea*).

As is the case in the rural areas of other Southern African countries, the degree of household dependency on products from woodlands reflects the type and condition of the forest, its proximity to consumers, and the use and access rights which households enjoy (Foy, 2001). Dependency on common pool resources from woodlands is usually greatest among the poorest households with the least agricultural or livestock resources. (See below). Given their support for subsistence and commercial economic activities, woodlands represent a major component of the country’s rural economy. Practically every household, across gradients of wealth/poverty, uses wood for construction and fuel purposes. The Beijer Institute has estimated that 80 per cent of the energy demands of rural households in communal areas is derived from woodfuel (Beijer Institute, 1985). Du Toit *et al.* estimate that wood is used for cooking in 99 per cent of households, by 98 per cent

for roofing construction and by 45 per cent for wall construction (du Toit *et al.*, 1984). The study by du Toit *et al.* and other studies (Attwell *et al.* 1989, Burford 1989, Campbell and du Toit 1985, Hancock, 1989, Bradley and de Wees 1993) suggest considerable variation in wood use in areas with different levels of woodland cover. Patterns of wood use (including use for carving and sale) have received extensive research attention and the quality of analysis is generally high.

The use of other woodland products or products associated with woodlands is extensive and varied. These uses include:

- Organic fertiliser and nutrient recycling. This includes browse-livestock-manure cycles (Balderrama *et al.* 1988, Abel *et al.* 1989, Burford 1989, Scoones 1990, Wilson 1990, Campbell *et al.* 1991) and woodland-field rotational or bush fallow systems, particularly in the Zambezi Valley (Derman 1991).
- Leaf litter as fertiliser. (Campbell *et al.* 1991, Balderrama *et al.* 1988, Burford 1989, Wilson 1990, Nyathi 1991).
- Use of termite mounds for fertilizer and brick-making. (Nyamapfene 1986, Burford 1989, Wilson 1989a and 1990).
- Fibre (Campbell *et al.* 1991)
- Honey production (Wilson, 1990).
- Medicinal plants (Whitlow 1979, Gelfand *et al.* 1985)
- Thatching grass (Clarke *et al.* 1996)
- Gums, silks and dyes (Campbell *et al.* 1993).

Edible woodland products constitute an important CPR resource for food in communal and resettlement areas. Several studies provide extensive lists of the species involved. Among these are Gomez, 1988; Blench, 1998; and Muir, 1993. Muir also includes an instructive wild food calendar. The species involved include fruits and seeds, tubers, leafy plants and shrubs, fungi, edible caterpillars, crickets and flying ants (Wilson, 1989b). The nutritional qualities of these woodland products is now recognised, are an “important source of dietary minerals and vitamins and, in times of stress, a significant supply of proteins, carbohydrates and fat.” (Bradley and Dewees, 1994: 80). Data on nutritional values are to be found in Chitsiku, 1981; Wehmeyer, 1966 (for South Africa) and Bradley and Dewees, 1994.

As might be expected, there is a general correlation between species presence, use and region. “Miombo woodlands on sandy soils generally contain a much greater variety and quantity of fruits than other woodland formations; twice as many as *Acacia combretum* and four times as many as mopane woodlands” (Bradley and Dewees, 1994, citing Campbell, 1987a and Wilson, 1989a and 1989b). Balancing this disparity is the presence of highly utilised species such as *masawu* (*Ziziphus*

*mauritiana*) and the tamarind (*Tamarindus indica*) in the Acacia-Combretum lowlands of the Zambezi Valley and the edible mopane worm (*Gonimbrasia belina*) and the mopane silk worm (*Gonometa rufobrunnea*) found mainly in the mopane woodlands of the south-west low veld. Of note is the finding that wild fruits have been found to be of particular importance in resettlement areas (Zinyama *et al.* 1990).

Usage for consumption takes place throughout the year, but tends to exhibit seasonal peaks that do not necessarily coincide with peak production. Research suggests that maximum collection takes place at the end of the rains (April) and continues sequentially through the hot, dry season. This implies that taste, rather than food scarcity *per se*, is a determinant in this pattern. In periods of drought this pattern is changed, with collection intensifying in the late dry and early wet seasons (September – December) when food stocks are low and new crops have yet to be harvested (Muir 1993, Clarke *et al.* 1996).

The rural/urban commercial sale of woodland food products has increased in recent years. Examples are mushrooms (some of which reach international markets), masawu fruit (largely from the Zambezi Valley), medicinal plant products and mopane worms (Chitsike 2000, Hobane 1994 and 2000). The sale of commercial hardwoods from communal lands is variable and can be a source of conflict between national and local interests. The sale of wild silk worms to a processing plant in Botswana (largely from the Tsholotsho and Bulilimamangwe Districts (Chitsike, 2000) is an interesting case which has not yet received extensive analysis. These instances of commercial exploitation pose difficult issues in management and proprietorship for which models of communal proprietorship such as the CAMPFIRE programme (see section 6.1) do not as yet provide ready answers (Hobane 2000).

### **2.3 Rangeland Resources**

Livestock production forms an integral part of the mixed agricultural system that is practiced in Zimbabwe's communal and resettlement areas. Cattle play a very important role as regards crop production through the provision of draught power, transport and manure (Cunliffe 1998). The importance of cattle in crop production is underscored by the fact that households that do not own cattle generally achieve low crop yields (LTC, 1994). Cattle and other livestock especially goats play an important role in lineage social organizations (e.g. sacred bulls), for the payments of lobola (bride price), for ceremonies, and for compensatory payments (Cousins, 1989). Given the importance of cattle, many farmers in the communal lands are generally opposed to destocking or reducing the number of cattle they own.

The livestock concerned also includes donkeys, goats, sheep and cattle. Donkeys are used for transport and draught, goats and sheep are important for sale and local consumption. Cattle are, however, the most important stock for the system, their most central functions being not the production of beef, but the supply of draught

power and manure for arable production and as a means of capital investment (Scoones and Wilson, 1989). Pressures on the commonage for cattle grazing thus constitute one of the most important CPR management issues in Zimbabwe and have been the subject of intensive research. A further consideration is that grazing regimes require “key resources” such as vleis, riverbanks, drainage sinks to provide fodder at critical times of the year or during drought (Scoones, 1990). The distribution of these “key resources” is not even, and significantly different between clay veld and sand veld (Scoones and Wilson, 1989). Thus depasturing tends to shift sites during the year. An extreme example (for Zimbabwe) is in the Maitengwe and Tsholotsho Communal Lands, where cattle are moved in the dry season to the western ends of these areas to a *lagisa* area.

Cattle ownership is significantly skewed. In an extensive study of five grazing schemes in Regions IV and V, Cousins produced the following data:

**Table 10: Cattle ownership in case study schemes**

	<b>Cham</b>	<b>Mut</b>	<b>Mar</b>	<b>Mang</b>	<b>Mach</b>
<b>Sample Size</b>	<b>120</b>	<b>99</b>	<b>61</b>	<b>68</b>	<b>50</b>
Household holdings (%)					
0 cattle	40.8	40.4	32.8	50.0	54.0
1-9 cattle	33.4	45.5	49.2	39.7	32.0
10 or more cattle	25.8	14.1	18.0	10.3	14.0
Mean cattle holdings – all households	6.2	4.2	4.8	3.0	3.3
Mean cattle holdings – owners only	10.5	7.0	7.1	6.1	7.1

(Source: Cousins, 1992: 38)

These findings underline the fact that a large number of households do not own cattle and that some households are comparatively large cattle owners. “Ownership” in the system is difficult to define unambiguously – for discussion see Scoones and Wilson, 1989. Households not owning cattle either hire or borrow cattle from other households. The Cousins study indicates the following pattern:

**Table 11: Sources of draught power in case study schemes**

Sample Size	Cham	Mut	Mar	Mang	Mach
	120	99	61	68	50
Source of draught power (%)					
Own cattle	48.3	43.5	37.7	36.8	34.0
Borrowed cattle	35.8	19.2	27.9	32.4	38.0
Hired cattle	13.4	21.2	14.8	11.7	8.0
Other sources (e.g. tractor)	1.6	4.1	9.8	7.4	10.0
No crops planted	0.8	12.1	9.8	11.7	10.0

(Source: Cousins, 1992: 39)

It can be concluded that rangeland usage is a CPR that is differentially appropriated by households, and thus a resource demanding particular attention in the consideration of CPR/poverty relationships.

## 2.4 Wildlife Resources

Wildlife is the third category of resources on which this report concentrates. The term is used here to refer to small and large wild mammals and birds. Zimbabwe is rich in the range and number of wildlife species that it holds and when considering household subsistence requirements the contribution of birds and small mammals (e.g. rodents, hares, rabbits) tends to be underestimated. Wilson has pointed out that one of “the errors in researchers’ and practitioners’ low evaluation of the importance of hunting has been for them to think only in terms of large game. In fact rodent and other small mammal consumption, and also birds, are more significant, especially in the closely settled agricultural zones” (Wilson 1989b: 7). Unfortunately, we have discovered no detailed research on this topic to date in Zimbabwe.

Regarding the larger mammals, Table 12 provides order-of-magnitude estimates for selected species. Figures for the first four species in this column are particularly significant for the market values of this resource. These are the “big four” on which the international safari industry depends for its multi-million dollar revenues. It is noteworthy that, outside the Parks and Wildlife Estate, communal and resettlement lands hold by far the greatest number of three of the four. In other words, communal and resettlement lands have the greatest high financial value in the wildlife CPR category outside land under direct state management, far greater than that of alienated land. (Even before “fast track” resettlement; this proportion is likely to increase in its aftermath).



**Table 12: Order-of-magnitude estimates for selected species in Zimbabwe by land category**

Species	Parks & Wildlife Estate	Communal/ Resettlement Lands	Farms & Ranches	Forestry Commission, other State Land
Elephant	65 000	7 000	1 400	1 000
Buffalo	57 000	9 800	2 400	1 800
Lion	3 000	460	120	180
Leopard	4 000	1 800	3 200	750
Zebra	15 000	2 000	4 000	1 500
Hippo	5 500	900	200	150
Giraffe	2 500	460	2 000	740
Impala	146 000	30 000	40 000	7 000
Kudu	24 000	5 400	20 000	4 000
Sable	7 200	1 400	2 000	1 300
Grysbok	20 000	11 600	4 000	2 200
Duiker	24 000	12 000	40 000	7 600

*(Sources: Various Department of National Parks and Wildlife Management reports to 1991. Thus these are dated estimates and do not take account of land category shifts under the "fast track" resettlement programme discussed in Section 1.2. The effect of these shifts may be to subtract from the "farms and ranches" category and add to the "communal lands/resettlement column.)*

Considering the high financial values involved the Department of National Parks and Wild Life Management (DNPWLM) introduced its CAMPFIRE programme in 1988, a programme in which communal lands could market their wildlife through lease arrangements with professional safari operators. This programme is further discussed in Section Six of this report, but there is no question that it has provided significant incomes to RDCs and in some instances local communities and households.

Use of the wildlife category of CPRs in the safari hunting mode has the added value of being "ecofriendly," with far less potential for negative impact on biodiversity or erosion than the use of rangeland or woodland CPRs. Negatively, the wildlife resource entails costs at local levels in terms of crop damage, livestock depredation and opportunity costs in the allocation of wildlife habitat. For wildlife to be an attractive land use option at local levels, perceived and delivered benefit must exceed these costs. This is a partial explanation of why the CAMPFIRE programme,

highly popular at RDC levels, has a varied reception in the communal lands.

The distribution of large mammal wildlife resources in communal lands is highly skewed. The availability of wildland (and wildlife) within individual districts and wards is negatively correlated with human population density ( $r = - 0.72$ ;  $p < 0.01$ ) with the maintenance of wildland (> 50 per cent wildland) more likely under lower rather than higher population densities (< 10 persons/km<sup>2</sup>), cf. Taylor, 1996. Thus, generally speaking, the concentrations of high-value marketable wildlife resources are to be found in regions with lower human population densities, i.e. Regions IV and V.

The use of large mammals for local consumption/subsistence needs is also correspondingly varied and correlates with availability. While some smaller ungulates are harvested in communal lands with high human population densities (e.g. duiker and grysbok), local consumptive use of large mammals is confined to wards and districts where human population/resource supply is favourable. In isolated instances this use has been significant. A detailed study by Murindagomo conducted in 1985 prior to the inception of the CAMPFIRE programme in the Angwa (Chisunga) ward of the Guruve District in the Zambezi Valley yielded the following data on wild meat ("bushmeat") consumption:

**Table 13: The production of bushmeat in Angwa**

Total human population in Angwa	1 566
Sample size in resource use survey (80 households)	720
Annual consumption of bushmeat in the sample (kg)	30 176
Total annual consumption in Angwa (kg) ( <i>extrapolated</i> )	65 633
Annual per capita bushmeat consumption (kg)	41.91
Annual per capita adult consumption (kg)*	88.19
* The consumption of four children under 15 years is equivalent to an adult's consumption (Marks, 1973)	

(Source: Murindagomo 1988: 82)

Of the total of 30 176 kg. reported above, 2 274 kg. was supplied by the safari operator, the balance of 27 902 kg. being obtained by local subsistence hunting. The main species involved were buffalo (16 740 kg.), kudu (3 890 kg.), warthog (1 872 kg.), bushbuck (1 677 kg.) and bushpig (2 496 kg.), the balance from local hunting coming from other species. Local hunting was done by snares and guns (frequently old muzzle loaders). Most hunts were concentrated in the dry season from May to November with the exception of bushpig, which were hunted during the growing season in fields. The majority of hunts took place within a 3 km. distance of

households (Murindagomo 1988: 79-82).

The figure of 88.19 kg. consumption per adult in Table 12 is consistent with the findings of Marks for an area in the Luangwa Valley in Zambia (Marks 1973). It is exceptional for Zimbabwe and could probably only be replicated in a few sites elsewhere in the Zambezi Valley and in the Southeast Lowveld. Furthermore, local harvesting of large wild mammals for food and hides has declined under the CAMPFIRE programme, particularly in areas where RDC practice has been to return the bulk of safari hunting proceeds to localities. In these instances, even when the right to sanctioned local offtake has been offered, the preference has been to market wildlife to the safari industry, indicating an insight into the “value added” components of this mode of usage. This perspective is reflected in such comments as “with the sale of one impala we can buy ten goats to eat,” made by villagers in a ward where household dividends from safari revenues are now over Z\$2000 p.a.

We reiterate, however, that cases permitting sustainable use of the large mammal resource at the order of magnitude mentioned above are the exception rather than the rule. The potential to expand the list of such cases exists, particularly in certain communal and resettlement contexts in Regions III-V. To neglect the development of this potential in these contexts would be a major and tragic default in policy and implementation. To push planning in this direction of CPR usage outside these contexts for either conservation or district council revenue interests would be equally defective and ultimately futile.

Access to wildlife resources is variable. Both the Shona and Ndebele cultures have an ethic which dictates that wild meat should be shared, but during the colonial period wildlife was appropriated by the state, local off-takes criminalized and sport hunting revenues taken by the industry and the state. Local use, such as that reported by Murindagomo (1988), was therefore covert and confined largely to those households that possessed the hunting skills and defiance necessary. Since the advent of the CAMPFIRE Programme access to wildlife benefits has been uneven, depending largely on RDC compliance with the Programme’s guidelines. Where those guidelines are not followed the revenues from this CPR are frequently largely appropriated by RDCs for district council administration and other purposes. (See Section 6 for further discussion)

Where the Programme’s guidelines are followed it can be suggested that access to benefit is highly equitable across household poverty gradients since revenues are returned to locality levels proportionately for collective infrastructure or as dividends payable to all member households, regardless of socio-economic status (Murphree, 1997b). This equity dimension of the wildlife CPR use stands in sharp contrast with, for instance, current access to the livestock commons. It should be noted, however, that this equity aspect of CAMPFIRE is sometimes modulated by male or ethnic dominance in the Ward Wildlife Committee’s decision-making process (Nabane,

1997; Dimbi, 1998; Mberengwa, 2000).

## 2.5 CPRs, Poverty and Sustainable Livelihoods

The ubiquity of CPR usage, particularly in Regions IV and V where poverty is highest, has already been demonstrated. A number of studies have attempted to value this usage to households in money terms, particularly for woodland resources. Techniques involved have included the contingent valuation method (CVM), the replacement cost method (RCM) and the derived demand (DD) approach (e.g. Campbell *et al.* 1991, Campbell *et al.* 1995, Lynam 1996). These studies have yielded valuable results, but as Bojö notes (Bojö 1993), with different methods and base years, clear summations are difficult.

For the purposes of this report, the approach taken by Cumming and Lynam (1997) to derive comparative values for CPRs and agricultural production has merit. The Cumming and Lynam report is an extensive and detailed examination on the sustainability of agro-ecosystems in the Zambezi Valley based on data from five study sites, two in Sebungwe and three in the Eastern Valley. All these sites fall within Region V. Their approach was to use allocations of household labour opportunity costs as a proxy for value, yielding the following results:

**Table 14: Mean proportion (%) of estimated total household labour opportunity cost allocated to each sector of the household economy in each site**

	Eastern Valley			Sebungwe	
	Chiriwo	Gutsa	Kanyurira	Negande	Sinansengwe
<b>Animals</b>	15	31	<1	51	63
<b>Fields</b>	52	23	49	22	14
<b>Natural resources</b>	22	28	25	16	14
<b>Home</b>	12	15	25	10	9
<b>Gardens</b>	<1	3	<1	1	<1
<b>TOTAL</b>	100	100	100	100	100
<b>Total Value (Z\$ hh<sup>-1</sup>) of labour</b>	567	1321	429	417	295

*Note:* "Animals" refer to domestic livestock. Kanyurira has to date opted to use its rangeland and woodland for wildlife production; hence the low figure under this column.

(Source: Cumming and Lynam 1987: 110)

The data in Table 14 are compelling evidence for the dependence on CPRs by households in these case studies from Region V. Taken together, value from "natural resource" use (largely woodland products) and "animals" (largely from rangeland) exceeds 50 per cent in three of the five cases and is 37 per cent in the

fourth case. Kanyurira is a special case since the value of wildlife is not captured in the approach.

Detailed as they are, the data from the Cumming and Lynam study do not provide details on intra-site household poverty differentials, although they do disaggregate households by development stages. Nor have we found much in the literature which attempts detailed quantification of the differentiation. This constitutes a research gap that needs to be addressed. There is no question, however, that such differentiation exists and that resource access and poverty are frequently associated with gender (Fortmann and Nabane, 1992), ethnicity (Mberengwa, 2000) and age (Sithole, 1999). Differentiation in CPR use by economic status is most clear cut in the rangeland resource, where cattle owners appropriate grazing benefits in the commonage.

One study, which does attempt to quantify the relationship between CPR usage and poverty gradients, is that of Cavendish, 1996. Cavendish's data are from a one-year study of 213 households in 29 villages of the Shindi Ward, Chivi District, in Southern Zimbabwe (Region V). Households were disaggregated into income-ranked quintiles, yielding the results displayed in Table 15.

Table 15 reflects in quantitative terms what has been generally asserted in other studies. Under "environmental income," consumption values progressively increase across the spectrum from the highest quintile to the lowest quintile of income ranking, while the values derived from livestock browse and graze show an opposite trajectory, as suggested earlier.

**Table 15: Sources of Household Total Income, expressed as percentages, across income quintiles: Shindi Ward, southern Zimbabwe, 1993-94 (Cavendish 1996). \***

	Household Quintile (total income ranking)					
	Lowest 20%	20-40%	40-60%	60-80%	Upper 20%	All Households
Total cash income ( <i>Excluding environmental cash income</i> )	21.9	19.0	24.8	29.7	46.5	33.8
Crop income	2.8	1.8	3.3	3.2	12.5	6.9
Livestock income	1.7	1.9	1.0	1.5	3.7	2.4
Unskilled labour income	4.4	3.1	3.2	1.8	1.5	2.3
Skilled labour income (teaching)	-	-	-	-	12.0	5.0
Crafts & small-scale enterprises	3.1	1.5	4.4	4.3	1.6	2.7
Remittances, gifts, miscellany	9.9	10.6	13.0	18.8	15.3	14.5
Total own-produced goods	43.5	44.8	41.6	42.0	30.8	37.8
Consumption of own-produced goods	35.6	37.2	35.4	35.5	27.3	32.3
Input use of own-produced goods	7.9	7.6	6.1	6.5	3.5	5.5
Total environmental income	34.6	36.2	33.6	28.3	22.6	28.4
Gold panning	7.0	12.0	8.1	6.3	1.5	5.4
Natural habitat utilisation cash income ( <i>Sales of products and woodland-based labour</i> )	5.8	4.5	6.2	3.2	1.9	3.5
Miombo, woodland-derived income (%) **	27.3	24.1	25.4	21.9	21.1	22.9
Ditto, minus livestock browse and graze (%)	25.5	20.8	20.4	14.1	7.8	14.4
Average total income ( <i>Z\$ per household per year</i> )	1595	2297	2847	3555	7284	3528
<p><b>Notes:</b> * The values presented exclude certain direct woodland-derived values, namely the value of organic crop inputs, the (imputed) rental of woodland-derived housing and the (imputed) rental of woodland-derived durables (e.g. pestles and mortars), and also exclude all indirect values (ecological functions, cultural values etc.). Incorporating these would not change the cash income results, but would raise the importance of miombo woodland-derived resources in total income still further.</p> <p>** Miombo woodland-derived income equals 'Total environmental income' minus environmental income that is not woodland-based (e.g. gold panning, pottery).</p> <p>*** US\$ 1 = Z\$6.5 (September 1993); US\$ 1 = Z\$ 8.09 (January 1994).</p>						

## 2.6 CPR Stakeholders

By “stakeholders” we mean “those social sectors who have a direct, significant and specific stake in a given territory or set of natural resources” (Borrini – Feyerabend and Brown 1997: 3). The “stake” or interests involved may derive from a variety of sources; livelihood dependence, cultural and historical association, economic interest, institutional mandate, value commitment and political interest are among the most important.

Stakeholders may have differential levels of interest and investment. While they may at times have compatible interests, quite frequently they are in competition with each other. Indeed, competition over natural resources is analytically basic. Abel and Blaikie summarise the dynamics involved succinctly:

*“The utilization of natural resources at a particular place and time is the outcome of conflicting interests between groups of people with different aims. Usually there is no absolute dominance by one group, so there are commonly a number of different ways of using resources at the same place and time.”* (Abel and Blaikie, 1986)

While one might wish to qualify this quote by substituting “categories” for “groups” (which may be organised in groups) we believe that it sets out the framework for an analysis of the social actors competing for (and sometimes collaborating in) the use and benefits of CPRs. Extensive lists of these actors have been generated (e.g. Uphoff, 1986; Murphree, 1994) and vast literature exists on their interests, roles and interactions. For the purposes of this report, however, we single out the following:

- a) International actors, including foreign governments; bilateral and multilateral aid agencies or agencies of international conventions and protocols; international interest groups, for CPRs importantly including conservation NGOs; regional groups such as SADC;
- b) The international and national academic, research and consultancy “community”;
- c) National government;
- d) National political organisations;
- e) National bureaucracies divided vertically by sector and horizontally to regional and district levels;
- f) National NGOs;
- g) National and international private sector enterprise;
- h) Rural District Councils (RDCs);
- i) Wards and Village Assemblies;
- j) Traditional Authority Structures;

- k) Local Self-interest Organisations, including co-operatives, service and religious groupings; and
- l) Categories of local socio-economic status comprised of households or individuals differentiated by, e.g., gender, economic status, education and age. Rarely organised in formal groupings.

None of these categories operate in isolation; indeed an organogram of their inter-relationships would show a complex pattern of opposition, inter-dependence and inter-penetration. Neither is any homogeneous. For this report we are, however, primarily concerned with two sets of structural competition which typically manifest themselves in CPR use and management. The first of these arises from competition between actors at locality levels (“local actors”) and those outside localities (“external actors”). We see this division as fundamental for our topic for these reasons:

- a) At the local level the poverty concerns of the study are immediate and personal, translated into over-riding imperatives determining action; at external levels poverty considerations are more abstract and take their place in a larger agenda of appropriative and status concerns.
- b) Directions of accountability and modes of interaction are different. For external actors accountability is typically upwards towards the “centre,” either national or international, and interaction is typically bureaucratic. For local actors accountability is lateral to co-residents and co-users, interaction is personalised and guided by configurations of normative consensus and individualised power.
- c) The division reflects two forms of determination over outcomes in CPP management, two configurations of interest and power which draw on different sources for their profiles.

The second arena of structural competition emphasised in this report is the interlocal. Here we are dealing with actors identified under (k) and (l) above. Poverty and power are not evenly distributed within localities. To this point the analysis has proceeded by way of abstracted categories. Box 2 below gives a more detailed description of intra-local differentiation. Although it is drawn from case studies on dambos or vleis and thus not easy to generalise, it makes up for this in the detail it provides on CPR access and intra-local socio-economic categories.

Categories (a) to (g) can be considered as “external actors.” Categories (k) and (l) are clearly “internal actors.” Categories (h), (i) and (j) are ambivalent or inter-callary. RDCs, wards and village assemblies are formally elected representative bodies with a primary accountability to their constituencies. However, they also have an “upward” accountability and are frequently more responsive to this imperative, particularly as the major part of their activities is funded in most cases by the government fiscus. Traditional authority structures depend largely on local legitimations for their authority, but are being drawn (not for the first time in Zimbabwe’s history) into alignment with the orbit of external authority interests. The



provisions of the Traditional Leaders Act, which make chiefs in effect relatively highly paid employees of government, is a case in point (Government of Zimbabwe, Traditional Leaders Act, 2000). The ambivalent social location of traditional and elected community authorities is but one example of the complexities arising in CPR management, to which this report will return in Section 4.

**Box 2**

**A typology of interest groups and their views on scarcity compiled from different group meetings held in both Chiduku and Mutoko**

Access Rating	Categories of Interest	Explanation
High	Wealthy households	Resource scarcity is a seasonal phenomenon, affecting the people in this category only when there are droughts. For some scarcity is seen in relation to the ability to fully use existing resources but with a capability to do more.
Very low to Low	Women	Generally, women have access to a small portion of the garden for household consumption, but with current pressures for land, many no longer have access to this land and now compete unsuccessfully for a portion of commercial produce. Women are suffering from lack of vegetables when the garden is cropped under lettuce or peppers that cannot be used for domestic consumption.
Low	Social deviants	Local people who are lazy and spend much of their time in beer-halls. Scarcity for this group is something that is contrived. They can access resources if they want to.
Low	Migrants	Their foreign origins militate against easy access to resources. Even where there are still resources this group is a reflection of discriminative controls in place that are supposed to favour lineage members. Scarcity for those migrants with money and political influence is not an issue as they are thought to use these to harness resources.
Low	Widows	These are further differentiated into young and old widows. The young widows are thought to have problems accessing resources as relations of the husband monopolise resources accessed during marriage. Most start sharing with in-laws and have no control over resources. The old widows are thought to suffer from scarcity as all their resources are taken over by relations and they survive on handouts.
Very low	Newly married people	These are said to suffer scarcity more acutely as they are able to practice gardening but have no access to resources. Most are sharing resources with parents but would like their own resources.
Very low	Youths	In Chiduku, these youths are referred to as “ <i>vana vaMugabe</i> <sup>1</sup> ” or <i>vekumaresettlement</i> . <sup>2</sup>
High	Old people	Though they have control over privately held resources, most have given these rights away either temporarily or permanently to their relations. They don't use their resources anymore, though some can be observed utilising small portions of gardens. Old people refer to the need of those within their households as “vultures waiting to take over”.

<sup>1</sup> Children of Mugabe <sup>2</sup> Those of the resettlement programme.

(Source: Sithole 1999: 12)

### **3. THE DRIVERS OF CHANGE IN CPR USE AND MANAGEMENT**

The use and management of CPRs is never static, anywhere. Certainly this has been the case in Zimbabwe, where over the past century constant changes in its demographic, economic and political profile have been accompanied by modulations in the way the way its peoples have dealt with their natural resource endowments. This section analyses major factors in the Zimbabwean context which have influenced the profile of CPR use, identifying five primary “drivers” of this change. While policy itself has undoubtedly been a factor in change, these drivers are treated here as largely independent variables with which policy has to deal.

#### **3.1 Resource/Demand Relationships**

Here we deal with the relationships, or ratios, between human demand for CPRs and their availability. Clearly these ratios affect the need and forms of social control necessary to regulate use if this use is to be sustainable. Where demand is low and the resource or resources in question abundant the need for control mechanisms is light. Where demand is high and the resource base restricted competition increases and control mechanisms assume heightened salience. This might be considered an intuitive hypothesis, but there is ample evidence in the histories of many societies to suggest that the hypothesis is valid. We use it here as a framework to analyse this driver of change in Zimbabwe.

##### **Human Demand**

Levels of human demand arise from several sources. The first and most obvious one is human population growth. Selected census estimates for Zimbabwe’s population show a dramatic rise in this variable, as follows:

- In 1901 Zimbabwe’s population was estimated to be 499 325. This was a rough estimate derived from imprecise data and may have been an underestimate. It can however be taken as an order-of-magnitude indication.
- By 1948, the first census to attempt tight estimates of the indigenous population, this figure had risen to 1,817,000.
- The census of 1954 estimated a population of 2,304,000.
- The 1969 census, the first to use the exhaustive techniques of current demography, reported a population of 4,846,930.

- The 1982 census, the first after Independence, shows a population of 7,608,000.
- The 1992 census reports a population of 10,913,000.
- Estimates for August 2000 suggest a population of 13,476,000 (see Table 4). (Sources: Govt. of Rhodesia 1969, Govt. of Zimbabwe 1992, CSO annual reports.)

These census figures imply that Zimbabwe's biophysical resources have, in 2001, to meet the demands of a population 27 times as large as it was in 1901. Even if we assume that CPR use is primarily rural, with a current rural population of 9.45 million, the increase is still 19.5 times as much as that in 1901. These comparisons on their own do not necessarily imply a "crisis" in supply/demand ratios, but they clearly suggest an increase in demands for CPRs and the need for increasing collective controls – a trend amply demonstrated by field data.

Human demand on CPRs is of course also influenced by factors other than population increase. These include life style expectations, technological change and consequent demand for commoditised CPRs associated with this technology. Life style expectations and technological innovation may in certain circumstances reduce CPR demand, but the general evidence is that market demand associated with these changes has, overall, increased pressure for the use of CPRs.

### **Resource Availability**

Turning to the supply side of our equation, we now look at CPR availability. In some parts of the world this has been affected by long-term changes in climatological conditions, as in the Sabelian region of West Africa. To date Zimbabwe has been relatively fortunate. Rainfall is highly variable and much of the last century was characterised by cycles of roughly ten wet and ten dry years. After 1980 a prolonged dry spell lasted for 16 years, resulting in a cumulative deficit of 2000 mm of rainfall by 1996. Since then five years of good rainfall have largely eliminated this deficit (Cumming 2001). The effect of global warming in the future is not yet clear, but this may result in greater fluctuations and extremes in weather cycles.

CPR availability is also affected by the soil conditions and properties that are usually examined in connection with agricultural productivity. Soil science research has a long history in Zimbabwe with a particularly high profile being given to soil erosion and gully formation. Particularly with regard to communal lands the findings consistently indicate negative trends: gully extension, topsoil loss, siltation and the drying of water bodies (Elwell 1983, 1985, Whitlow 1987,

Chenje *et al.* 1998). Studies on soil nutrients and soil fertility have had a lower profile, but generally indicate similar negative trends (Grant 1967, Kumwenda *et al.* 1995, Swift 1998). Chenje *et al.* depict a negative picture for soil fertility through the use of pesticides, herbicides and fungicides which affect soil fauna and the respiratory enzymes of fungal cells (Chenje *et al.* 1998: 157 – 166).

Of particular interest to this report are the findings of Cumming and Lynam since the data are drawn from Region V:

*“Continuous cultivation of mid-Zambezi Valley soils (we examined 10 different soils cultivated for over 10 years) had several detrimental effects; soil organic carbon was reduced by about 19%, soil erodibility was increased by 2 to 5%, the time to run off for wet soils was reduced by 2% and the proportion of stable soils aggregates decreased by 31%. These factors have important implications for the sustainability of agriculture and for the environment, particularly when coupled to larger scale processes. Reduction in soil organic carbon contributes to reducing soil structural stability as well as the nutrient and water retention capacities of the soil. Water use and nutrient use are therefore, likely to be less efficient.”*  
(Cumming and Lynam 1997: Vol. 1, p.x)

Later in their study, and synthesizing soil fertility considerations with other factors such as population growth, woodland and grazing resources, water availability and agricultural practice, Cumming and Lynam reach the conclusive that, of their six study sites in the Zambezi Valley, only one “has sufficient biophysical resources to support the human populations likely to require these resources in the year 2030” (Cumming and Lynam 1997: Vol. 1, p. 115).

It has been suggested that many of the “doomsday scenarios” implied in the scholarship outlined above are, in part, the result of the need of an epistemic coalition of scholars and policy makers to maintain “crisis narratives” as a legitimation of their work (Keeley and Scoones 2000). This is a component of the current “counter-narrative” which sees “mainstream “ ecology” as “neo-Malthusian” (cf. Leach and Mearns 1996). For this report on CPRs many of the detailed critiques involved in this stance are salient. Zimbabwean scholarship on environmental conditions has often (but not always-cf. the Cumming and Lynam study) been based on limited field experiments, ignored socio economic and institutional context, and over-generalised its conclusions.

We need therefore to be cautious about inferring CPR depletion from generalised studies of soil and landscape degradation. On the other hand we cannot ignore clearly established *trends*, such as the persistent annual loss in woodland cover (Nhira *et al.* 1998:18). Nor can we ignore careful and detailed studies that examine use patterns, such as Cumming and Lynam 1997. In this

study the authors examined *inter alia* spatial patterns of resource use in their six study sites. (Cumming and Lynam 1997: Vol. I p. 112) Households were found to utilise resources from “resource catchment areas,” although individual household resource catchment areas were not exclusive. For this report the most interesting finding is the comparative mean size of these resource catchment areas across their six study sites. The largest mean catchment area was in Gutsa (17.3 km<sup>2</sup>). The smallest was in Kanyurira (5.8 km<sup>2</sup>). When it is considered that Gutsa had the highest population density per km<sup>2</sup> (21.1) of the six sites and Kanyurira the lowest (1.7), and even accepting that other factors may be relevant, this is highly suggestive of the importance of demand/resource ratios in determining effort required to capture CPR values.

### 3.2 Tenure Change

Section 1.2 of this report has already described the rapid and dramatic change in Zimbabwe’s tenurial landscape that has occurred since the inception of Government’s “fast-track” resettlement programme in June 2000. By August of 2001 10.28 million hectares of large scale commercial farm land had been gazetted as resettlement land, representing 26% of the Country’s land surface.

The implementation of this gazettelement is difficult to predict at the time of writing given the current fluidity in Zimbabwean politics. However if Government’s intentions (stated or inferred) are carried out it is likely that this land will be re-allocated in the following categories:

- a) Resettlement land for small-scale farmers in regimes corresponding to Models A and B. Some of this type of resettlement has already occurred, in many instances on an ad hoc and uncoordinated basis.
- b) On a smaller scale, similar resettlement under Models C and D.
- c) Allocation of designated farms and ranches in their current extent to black Zimbabweans on a lease-hold basis, with options to purchase and hold radical title.
- d) Allocation to black Zimbabweans of disaggregated units of medium scale derived from the division of previous farms and ranches, also on a leasehold basis with the option to purchase.
- e) Possible allocations of land in small (40-80 ha.?) surveyed plots with exclusive rights to land and resource use. Certificates of occupancy and use held by heads of householders. Heritable and non-divisible, tradeable within the resettlement area concerned. (“Chizvilizvi” model)

If in practice these categories turn out to be valid the following effects on CPR use and management can be posited:

- For resettlement areas falling under (a) and (b) above, proximate de facto management of the commons will be collective under the jurisdiction of “villages” or similar units. These units will have powers and responsibilities that closely replicate those of “Village Assemblies” in communal lands. One effect of resettlement under categories (a) and (b) is likely to be some reduction in demand pressure on CPRs in communal lands, at least in the short to medium term. Within the same time frame, however, there is the danger that local controls on CPR use in these types of resettlement land will be very weak. The Chilo Lodge Workshop identified this as a major weakness in current resettlement. Settlers had little sense of collective identity or mechanisms of control with collective internal legitimacy. As a result their new commons had taken on characteristics of open access, exploited by some for trade purposes with no consideration for sustainability or collective good. Common property regimes worked well for communities with cohesiveness and leadership with strong local legitimacy, such as Mahenye, but they were not appropriate for new aggregations of settlers with disparate origins. Participants therefore recommended resettlement along the lines of the Chizvilizvi model (e above) with which they were familiar. (See Appendix A, pp. 7-8)
- For resettlement areas falling under (c) (d) and (e) above, woodland, grazing and wildlife resources will no longer be technically managed as CPRs. There is however the possibility that wildlife could be managed on a common pool basis by participating landowners. The pattern for this has already been set by large ranches in the Save Valley Conservancy, which have, as yet, been little affected by the resettlement programme. At smaller scale, ploholders in the Chizvilizvi resettlement area are actively considering this approach to their wildlife resources, although cooperative arrangements at this scale may be too complex and costly in comparison to returns (Martin 2001).

The Ministry of Environment and Tourism has produced some initial planning for resettlement areas, published under the title “Integrated Conservation Plan for Fast Track Land Resettlement” (Zimbabwe, Government of, Ministry of Environment and Tourism, Aug. 2001). The Plan addresses “those communities resettled in areas that are not suitable for agriculture through optimal use of natural resources ...” and advocates *inter alia* outgrower schemes for plantation forestry, grazing and woodland management schemes, and small scale wood industry schemes. Wildlife based land reform is suggested for Region V, with game ranching by individual farmers or groups of farmers, and wildlife exploitation in the

CAMPFIRE and intensive management modes is also advocated.

### 3.3 Commoditisation

A third driver of change is the penetration of market forces into rural areas through the commoditisation of land and natural resources. One strain of thought in the sustainable use debate accepts CPR use for subsistence use but sees this use as a danger to be resisted. However a detailed examination of four case studies (two in Southern Africa) shows "... the commoditisation of access to land and water under customary tenure well before the establishment of formal markets in land" (Hulme and Woodhouse 2000:223). The study goes further to suggest: "that the spaces, social relations and practices of 'subsistence' farming are shaped by commodity relations, and that the conditions of 'subsistence' farming (access to and command over land, pasture, water, labour, inputs) are themselves subject to commoditisation, and that 'non-market' social relations and networks are also permeated by commodity relations..." (Bernstein and Woodhouse 2000:212)

In Zimbabwe the commoditisation of woodland products through the sale of edible and medicinal items and woodfuel has already been described in Section 2. Commoditisation of the rangeland CPR frequently takes place through covert 'loans' of livestock by financial elite to persons with commonage entitlements. The one officially sanctioned instance of CPR usage is the sale of wildlife through the CAMPFIRE programme.

The commercialisation of CPRs does carry with it certain dangers. It may:

- Stimulate overharvesting and unsustainability
- Shift intra-local control over the resource concerned from poorer to more wealthy households, or from women to men
- Shift control from local to external actors
- Encourage corruption and nepotism at communal and high levels
- Create market chains in which "middle men" rather than local producers are the main beneficiaries. (cf. Murphree, 2000a)

Commercialisation may, however, under the right conditions carry with it certain benefits. It can act as a catalyst for local collective action and provide a training ground for the acquisition of skills in communal accounting and negotiation with external actors. It may be a mechanism to buffer communities against food shortages in drought years. Bond notes that, in regard to CAMPFIRE revenues, the



median for wildlife revenues as a percentage of gross agricultural production rose from 10 per cent to 21 per cent in 1991, following one of the severest droughts on record (Bond, 2001: 235). Another case study (Kanyurira ward) tracks local allocations of wildlife revenue over five years, showing that household dividends were high in years of food shortage (up to 78%), while in good years allocations were used mainly for community projects (up to 80%). In other words, the community was “shrewdly using their wildlife revenues flexibly, in good years for collective development, in years of crop failure as food security” (Murphree, 1996: 173-4).

We can conclude that the commoditisation of CPRs is of growing significance in affecting CPR use. Policy must deal with its present or future negative affects, while harnessing its entrepreneurial dynamic.

### **3.4 National Macroeconomic Structures and Performance**

The importance of national economic health as a driver of change in CPR use cannot be overemphasised. Much of the environmental degradation that has been suggested in the literature is attributable to colonially derived structures in the wage labour market that have made no provisions for post-employment livelihoods and assume that this burden will be borne by retirees’ home villages. As a result many in this age cohort are driven to open up sub-marginal land for agricultural production (CASS 1992) and to use CPRs in the “safety net” mode. Beyond this, shrinkage in the wage labour market can push persons in economically active age cohorts to return to subsistence living in their rural ancestral homes.

Unfortunately the current state of the Zimbabwean economy is bleak and shows little prospect for immediate improvement. Since 1997 Zimbabwe has experienced a major decline in its national economic performance. Real GDP, which stood at 8.7% in 1996, had fallen to minus 6% in 2000 with no improvement in 2001. The percentage of the total population in formal employment had dropped from 18% in 1995 to under 10% in mid-2000. Average inflation rose to 55.9% in 2000 and had reached 102% by December 2001. This downturn is reflected in the exchange rates for the Zimbabwean dollar, shown in Table 16.

**Table 16: Exchange rates**

Year	Z\$/US	Z\$/GBP
1980	0,63	1,51
1981	0,72	1,37
1982	0,92	1,67
1983	1.11	1,61
1984	1.5	1.75
1895	1.64	2.37
1986	1.68	2.47
1987	1.66	3.09
1988	1.94	3,48
1989	2.27	3,64
1990	2,64	5,08
1991	5,05	9,42
1992	5,48	8,28
1993	6,94	10,24
1994	8,35	13,08
1995	9	14.42
1996	10	14,96
1997	18	27
1998	3	48
1999	42	63
2000	46	69
2001	55	83

**Note:** Over the past five years two further rates have developed, a “parallel” market rate used by certain financial organisations and a black market rate. The black market rate for the US\$ is currently +- Z\$340.

Linked to this adverse economic shift, and fed by perceptions of political instability, has been a sharp decline in Zimbabwe’s international tourism industry in 2000 and 2001, with many hotels reporting occupancy rates of only 30%. Interestingly, the hunting safari tourism component has remained far more robust, and in this dimension CAMPFIRE has to an extent been insulated from the general economic hubris. Far more seriously, for CAMPFIRE, has been its impact on household

livelihood strategies. A shrinking labour market in the formal sectors has led to urban-rural migration. One of CAMPFIRE's most successful communities, Masoka, now has 380 households, up from 60 in 1988 and 123 in 1995. This is in part due to natural population growth and the in-migration of "outsiders" attracted by the success of Masoka's wildlife enterprise, but is also the result of an influx of households that claim residence in Masoka on the basis of kinship. This has increased pressure on the natural resources and other institutional controls of Masoka's programme. That Masoka and a handful of other communities in the Programme continue to maintain successful wildlife enterprises is indicative of their resource richness and institutional resilience. More generally however CAMPFIRE communities are struggling to maintain their programmes in a context where immediate survival needs outweigh any concerns for ecological or institutional sustainability. The over-riding impact of this trend for CPRs is summarised by Bond as follows:

*"High population growth and declining economic performance have placed almost unbearable pressure on the process of institutional change. Falling real incomes have forced, and will continue to force, both rural and urban households to exploit natural resource capital as their only possible alternative. Under these conditions effective institutional change for the management of natural resources will be very difficult to achieve."* (Bond, 2001: 242)

The point is clear: regardless of whether CPR policy in Zimbabwe effects the many improvements which are possible, sustainable CPR use will be frustrated at local levels by poor national economic performance. This is not to suggest that the goal of good CPR policy and practice is not worth pursuing. It is, if for no other reason than to put in place a management structure and culture that can anticipate full implementation in a future macroeconomic context that is more enabling. But expectations for the present must be tempered by the recognition that the country's CPR resources are currently hostage to larger national politico-economic realities.

### **3.5 Information and Knowledge Transfer**

The final driver of change discussed here is the flux and dynamic produced by ideas, experiments and innovation that is ongoing in rural Zimbabwe. While much of this innovation is technological it importantly includes new approaches to management and marketing.

The sources of this innovation are diverse. Some of it is exogenous to local contexts and flows from government, aid and NGO agencies. Such agencies have been useful in introducing successful technological approaches such as early maturing crop varieties and electric fencing for the protection of crops from wildlife. They have also been helpful in the provision of training and research. Their provision of project funding has been more problematic. Some funding for start-up processes and

experimentation can be justified, but larger grants have often had the effect of perpetuating attitudes of dependency rather than fostering self-reliance.

Many of the more successful innovations have however come from local contexts themselves. Zimbabwe's rural population is relatively literate and well-travelled, and lateral information flows between communal lands, and between communal and commercial farm lands, has considerable impact. Urban/rural information flows are also important. As a result experiment and insight gained in one site frequently gains currency in others and is sometimes deliberately sought by community delegations sent out to investigate lessons learnt elsewhere. (cf. Murphree, M.J. 1999) One well documented example is the case of Mahenye, a community in the CAMPFIRE programme (Murphree 2001a). In this instance the community commissioned a delegation to inspect a number crocodile, ostrich and small-scale tourism ventures on commercial farms, and its report was incorporated into local planning which has resulted in one of CAMPFIRE's most successful local tourism ventures. The extent and specific impact of these lateral communication flows is difficult to quantify but they are clearly an important driver of change in CPR use, creating new responses to old or new demands.

### **3.6 Other Drivers**

We have not singled out politics as a driver of change. Clearly politics, particularly as it affects competition and power relationships at both national and micro levels, is a driver behind others that have been discussed in this section. We prefer in this analysis to however consider politics as a polyvalent factor, to be considered in all cases. Nor have we considered policy itself as a driver of change, firstly because it shares the polyvalent profile of politics. More specifically, and as will be discussed further in Section 4, policy in Zimbabwe has shown itself to be a weak driver of change, indeed it can be suggested that it has been more of a deterrent than driver. The one notable exception to this has been policy on wildlife, discussed more fully in the last section. Finally, we have not given specific attention to international drivers such as trade agreements, international conventions and treaty obligations. Although Zimbabwe is involved in a number of these their actual impact in implementation has been small. Three exceptions to this generalisation could be made. Firstly, Zimbabwe/U.K./E.U agreements on beef exports, which have checker-boarded Zimbabwe's landscape with buffalo fences to prevent the transmission of foot-and-mouth disease. Secondly, tsetse fly control agreements with Zambia and Mozambique which have resulted in an increased livestock population in the Zambezi Valley, although these agreements have been only one factor of several in this change. Thirdly, CITES decisions on elephant and crocodiles have influenced Zimbabwe use regimes for these two species, although not in any fundamental way (Hutton and Dickson 2001).

#### 4. **COMPLEXITIES IN CPR POLICY FORMATION**

In this section we examine the differences in perspective, cognition, interest and social location among the primary actors involved which lead to contradictions and disjunctions in CPR policy formation. These are the complexities that make policy formation difficult and so often ineffective. We start with a discussion of fundamental oppositions and then deal with two issues that exemplify the difficulties involved.

##### 4.1 **Sites of Legitimacy, Cognition and Power**

###### ***State Policy***

Formal Zimbabwean policy on environmental issues, agricultural practice and CPR use has been remarkably consistent since its initial formulation in the early years of colonialism. Although it has become more elaborate, its basic profile has been carried forward to the post-colonial era with little fundamental change. Examining this continuity across the “great divide” of independence in 1980, Keeley and Scoones suggest that its primary source, in both the colonial and post-colonial eras, has been a political concern to establish the centrality of the state as the legitimate source of problem identification, intervention and problem solving. An approach to governance “where positivist science and technical knowledge is wedded to a Weberian mode of administration” serves this purpose. It also serves the interests of the bureaucracy and the scientific establishment that coalesce into enduring “actor-networks supporting specific knowledge claims.... The power of knowledge and the influence of the science come from the degree to which the enlisted actors are themselves powerful and the degree of solidity and stability of the network” (Keeley and Scoones 2000: 15,9).

The powerful alliance between bureaucracy and science evident in Zimbabwe’s environmental policy history has undoubtedly led to advances in the understanding of the environmental dynamics that have been operative in the country. It has however also at times compromised an essential component of good science – the recognition of contingency and uncertainty in its findings. “Awareness of uncertainty has a habit of disappearing when science interacts with policy.” It also has the danger of excluding insights from local experience and civil science through “processes of ‘black-boxing,’ whereby disputes are closed, fundamental uncertainties, or questionable premises, are closed from further investigation, or just simply ignored” (Keeley and Scoones 2000: 8-9).

The claims made by the scientific/bureaucratic establishment to exclusive knowledge generation combined with political imperatives has resulted in an over-all policy stance which can be termed a policy of *state custodianship and communal/resettlement land wardship*. On alienated land policy has been to assign proprietorship of rangeland, woodland and related natural resources to the owners or

occupiers of such land. There are two important exceptions. Mineral resources and wildlife resources were retained under the proprietorship of the state. Mineral resources remain so, but under the Parks and Wildlife Act of 1975, proprietorship of wildlife on alienated land was transferred to owners or occupiers. This policy and legislative shift led to the birth of an expanding wildlife industry that later served as the model for the CAMPFIRE Programme (Murphree, 1997b).

Communal lands and resettlement lands remain under the formal proprietorship of the state. In the language of legislation, they are “vested in the President,” with the notion that the state acts as custodian of these lands and resources and manages them directly through line ministries and indirectly through units of representative local governance for the benefit of their inhabitants. These inhabitants have, in effect, usufruct rights to use land and resources and to participate in planning for this usage. They do not, however, have the right to act, individually or collectively, as a *legal persona* at sub-district levels in respect to the ownership of land and resources.

This basic policy stance is embodied in a range of legislation importantly including the Communal Lands Act (1982), the Natural Resources Act (1942), the Forest Act (1996), the Communal Land Forest Produce Act (1987), the Parks and Wild Life Act (1982), the Traditional Leaders Act (2000) and the Rural District Councils Act (1988). Detailed analyses of this legislation are to be found in LTC 1994, Vol. II: 141-176 and Chitsike 2000: 8-14. An example of sequential legislation, relating to woodland resources, is provided in Table 17.

**Table 17: Legislation that influences use of woodland resources**

<b>Key Legislation</b>	<b>Main themes and provisions</b>
Land Apportionment Act and Land Tenure 1930	Created the Native Reserves/Tribal Trust Lands, which were latter re-named Communal Lands. This marked the translocation of indigenous people to high concentration settlements on marginally productive land.
Natural Resources Act 1942	Provided for highly interventionist regulation of natural resources use on native reserves
District (Communal Land) Councils Act, 1982	Control over communal lands was placed under the President through the District Councils (now Rural District Councils- RDCs) rather than chiefs or headmen. RDCs were empowered to make orders or control cutting of trees. Political institutions were created at ward and village levels.

**Table 17: Legislation that influences use of woodland resources (contd)**

<b>Key Legislation</b>	<b>Main themes and provisions</b>
Communal Land Forest Produce Act	Restricts use of forest products in communal lands to “own use”. Provides for RDCs to grant commercial timber harvesting concessions, prohibits use of forest products from protected forest areas and reserved tree species, prohibits clearing of vegetation within 100m of river banks.
Rural District Councils Act, 1988	Provides for RDCs to enact by-laws to regulate natural resource use, issue licenses for commercial extraction of wood products, declare Natural Resources Management Committees to enforce the Natural Resources Act.
Traditional Leaders Act, 2000	Empowers chiefs, headmen and <i>sabhukus</i> – their duties include ensuring that land and its natural resources are used and exploited in terms of the law and, in particular controlling – over cultivation, over-grazing, the indiscriminate destruction of flora and fauna, and generally preventing the degradation, abuse or misuse of natural resources in their areas. Establishes village assemblies and mandates the demarcation of their boundaries.

(Source: Nhira *et al.* 1998: 36-37)

Examining this legislation, we can generalise that the policy of *state custodianship and communal/resettlement land wardship* shows the following characteristics:-

- It has been technician in its approach, leading to planning and implementation which marginalizes local inputs and participation.
- It has relied heavily on sectoral, bureaucratically segmented planning and implementation, leading to fragmented, overlapping, uncoordinated and inefficient practice and legislation. Currently, there are 18 different statutes, administered by eight different ministries, which relate to environmental and natural resource issues (Chitsike 2000).
- Strategically, policy relies primarily on proscription to effect sustainability in use. Positive incentives, particularly those that are economic, are largely neglected.
- The administrative and transaction costs of implementation are also largely ignored. The financial capacity of government to carry out necessary administrative, extension and enforcement functions assigned to it are severely constrained, and current circumstances suggest that this capacity will be further reduced in the mid-term future. The transaction costs of implementation borne by local people are also ignored. An example is found in the Traditional Leaders Act where village and ward assemblies are both required to meet quarterly, conduct and report on business, but perform such services “on a voluntary basis and shall

be provided free of charge,” (Section 21(3)). Given that village assemblies and wards have no formal powers to conduct entrepreneurial activities in their own right, nor have any tax base of their own, local participation in such activities is likely to be minimal and uneven and left to individuals who have the resources for such participation. This reinforces elite dominance in decision-making.

### ***Local perspectives and Structures***

The perceptions and perspectives of the local population in communal lands, to whom this policy and legislation is directed, are now examined. Firstly, as already noted, we should recognise that this category is not homogeneous, being divided by various socio-economic and cultural differentials. This notwithstanding, we can generalise to say that persons in this category share with national policy general concerns about the preservation of their natural resource base. Their attitudes to policy and implementation in the technicist, prescriptive mode is however ambivalent; a mixture of recognition that authority is necessary, resignation to its intrusions and doubts as to its motivations and efficacy. This frequently distils into a highly cynical profile of authority, both internal and external. Box 3 provides a colourful depiction of this profile and provides a useful antidote to those who glibly assume that the designation of authority automatically equates to approval or compliance. Local communities see themselves as being in competition with the state and the private sector over resources and perceive policy as being designed to expropriate their entitlements. Box 4 illustrates the issues and perceptions involved.



### Box 3

#### Comparisons of institutions based on perceptions of farmers in Mutoko and Chiduku

Institution	Comments
Department of Natural Resources	When they come they prosecute us, they don't understand our problems. Anyway the good thing is we don't see them much. They are a problem; they come to disrupt agricultural activities. They prosecute us and have no mercy.
AGRITEX	They are everywhere, they live with us. Their problem is that they like to work with certain farmers in groups yet they were given to us by government to work with everyone. The AGRITEX worker works hard but likes working with women groups. We don't see them much, not like we used to in the past.
AFC	They started off giving us loans for growing vegetables, but they stopped when we could not pay back their money. Now they come and take our technology and we have nothing to use for farming. They are useless and retrogressive; they think farmers want to cheat them, yet we have real problems especially from droughts. If you had starving children who would you use your money for first, the child or AFC, they are mad! AFC has never given us anything for gardens.
<i>Sabhukus</i> (Headmen)	They are still important, as they still are the de facto authority in the allocation of gardens. But they are now weak, few people respect them. <i>Masabhuku</i> are there but who deals with them, no one. They have no power anymore.
<i>Svikiros</i> (Spirit mediums)	They are even weaker than the <i>Sabhukus</i> . Most of these are now just behaving like ordinary people. Their powers have gone. They have no resources to look after or conduct their rituals in. The <i>svikiros</i> here are weak, their greed and love for power have weakened them. No one respects them.
Church	Many people belong to the church. The good thing about the church is that it creates a market for produce, for example the mission school buys lots of vegetables from us. The church is quite influential, especially the Black Jews. They don't allow anyone to observe traditional practices.
Councillors	They get involved in everything, they are the new leaders, but few people have any respect for them. They spend their time at meetings and misrepresent us. Most are elitist and look down on the people that selected them. Our councillor is not visible, he would not even know who was doing what in his area.
Mutoko Producers Association Maungwe Development Association	It is a huge bureaucracy established to help us, but it doesn't. There is no communication between the association and the producers. Producers have many complaints and the association is not addressing these. They built markets and encouraged people to sell there so we would not have trouble with transport. The problem is that people feel they get better prices if they go to Rusape.
District Council	It is another small government ( <i>kamwewo kahurumende</i> ) which is out of touch with the needs of its constituency. They claim to be for us, but we don't see what they do for us. Look at the problem of the miners of black granite. They destroy our Dambos and we don't get compensated. The district council should help in this matter but they don't. We don't even see them, or know what they do. They are good at putting new taxes on suffering people.
VIDCOs	This is another useless organisation. We are not sure what they do. Some VIDCOs are useful and work hard to promote development. The problem is that they are subordinate to everyone else, so eventually they become frustrated.
<i>(Source: Sithole, 1999: 176)</i>	

#### Box 4

##### **Timber concession politics: where national and local tensions meet**

Timber concessions generate issues around which state policy, outdated legislation, private interests and community needs interact in a highly contentious manner. The politics of these encounters, and the manner in which the controversies over concessions have been managed, give important insights into how policies work in practice.

Extraction of indigenous timber from commercial concessions within communal lands represents only a small proportion of the out-turn of timber from these areas. Charcoal manufacturing and urban fuelwood supply probably account for a far greater off-take of forest products (although data remains poor) – not as valuable as timber in commercial terms, but often vital for local livelihoods. Nevertheless, indigenous timber supplies in some communal areas have significant commercial value.

As communal lands are effectively state land, timber resources on these lands officially belong to the state. Rural District Councils have the responsibility for decisions about land and natural resources utilization in communal areas. The administration of concessions falls under this remit. The Forestry Commission is responsible for providing advice under which concessions are granted, and for ensuring compliance with the conditions. This involves an assessment of the allowed cut, brokering the agreement between the council and the concessionaire, and monitoring the timber cutting operation. Councils often issue concessions to people from outside the district while benefits tend to be appropriated at district level. Corruption has been alleged in the allocation of concessions and monitoring of timber extracted.

Local communities, meanwhile, are often in conflict with the concession system, expressing concern at the lack of consultation over the granting of concessions, environmentally damaging and wasteful extraction methods, and the lack of local benefits from the revenues from timber which communities have looked after (Nhira and Fortman, 1993). Examining a number of timber concession studies, Bird et al. (1995) conclude that communities are generally ignored in the granting and working of timber concessions. They note that a common theme is local people's sense of having their trees stolen. They also note the ample evidence that communities will actively protect what they consider to be their resource when this is recognized by others, but that the perceived theft by outsiders becomes a disincentive for their tree management and tree planting initiatives.

"In view of the sanctioned destruction of their natural resources by complete strangers, it is hardly surprising that local communities see an inherent contradiction between policy and practice. It would seem the local community can do little more than take up their axes and knobkerries in defense of their resources until the authorities acknowledge their role in the degradation of the communal environment and takes steps to clarify the roles and responsibilities of the various stakeholders" (Bird et al., 1995: 20).

*(Source: Nhira et al., 1998: 93)*

Given competition and perceptions of scarcity, local grouping do organise themselves for collective CPR management. Such organisations operate largely on a de facto basis although they may have de jure elements in their composition. They draw their authority largely from customary or collective legitimations and from locally contextualised experience yielding knowledge considered to be more relevant than national policy and legislation.

A large range of literature exists dealing with local-level organisation for CPR management and control (Alexander and McGregor 2000, Cheater 1990, Cousins *et al.*, 1990, Dzingirayi 1994 and 2000, Fortmann 1995, Fortmann and Bruce 1992, Hobane 1994, Hotsprings Working Group 1995, Hughes 1999, Jacobos 1993, Mandondo 1998, Matose 1992, Matose and Wily 1996, Mukamuri 1992, Murphree 1994, Nhira 1992, Nhira and Fortmann 1993, Scoones and Cousins 1994, Scoones and Wilson 1989, Sithole 1995, Sithole and Bradley 1995, Dimbi 1998, Nabane 1997, Thomas 1991, Wily 2000 and Worby 1998). From this literature, certain generalisations can be drawn:

- Local organisation for CPR management can be multi-purpose or resource-specific.
- More than one organisation can be directed at the management of a specific resource.
- Local organisation is dynamic, responding to various socio-economic and environmental pressures. Response change is far more rapid than national policy change.
- The ostensible profile of organisations and authority (e.g. committees, councils, formal status and position) may mask the real sources of decision-making.
- Intra-locality organisational ascendancy can vary seasonally or over time.
- Alliances between intra-locality organisations and external actors (e.g. NGOs) can affect their power and status, with sometimes divisive effect.

While intra-local, resource specific organisations are important the presence of coalescive organisations embracing the entire spectrum of local CPR and development concerns is required because of their inter-related nature. The literature suggests that to be effective such organisation requires:

- Local legitimacy
- External legitimacy
- Efficient organization
- Capacity to change, including its composition
- Skills, including numeracy and literacy, negotiating capacity

- Social energy, resourcefulness and aggressiveness on behalf of their constituencies.

These characteristics mark the more successful case studies found in the literature. In their absence local organisation will be weak, often leading to a local sense of collective impotence and the abdication of responsibility for sustainable CPR usage. Sithole, for instance, found that a new generation of CPR users had the tendency to “see the environment from which they derive sustenance as an extension of government responsibility,” (Sithole 1999, 143). Mitigating this she found a continuing ethic of reciprocity fostering a sense of mutual identity and interest (Sithole 1999, 323). It is this sense which can be the basis for the development of local organisation of CPR management and use, provided that people feel that they have ownership of the process. The Hotsprings Working Group found that local people agreed with much in national environmental policy and legislation; what they found unworkable was its implementation, lacking in detail what they could have supplied had they been involved in the process of its formulation (Hotsprings Working Group 1995).

### ***Disjunction and Stalemate***

The loci and content at the roots of policy are thus quite different when we compare the sources of legitimacy and cognition of the scientific/state establishment and those of local, communal CPR users. Not only are they different, they are disjunctive and frequently competitive. These differences in legitimacy and cognition are paralleled by differentially derived sources which distinguish the power of the state and the power of the local. The power of the state lies in “the power of the purse-string, the power of legislation, the power of bureaucracy and the power of established ways of doing things,” (Murphree, 2001b). The power of local actors lies in their on-the-ground, in-place status as implementors and their relative insulation from the penalties of non-compliance fed by necessity. Unfortunately, these two forms of power, held by the two configurations of actors identified, have led to the exercise of mutually exclusive vetoes.

This is the ‘socially constructed stalemate’ of which Lee speaks (Lee 1993:12) a situation in which the state is unwilling to surrender its technicist and proscriptive policy approaches while lacking the resources to make these effective, while the local lacks the authority and incentives to create effective policies and regimes responsive to local imperatives. The result is frequently the sense of collective impotence and abdication of responsibility mentioned earlier. This disjunction is clearly a “complexity” which policy must address.

## 4.2 Scale<sup>1</sup>

Scale is another complexity with which policy must deal. Two sets of scale challenges are involved. The first is the problem of scale mismatch between jurisdictional, functional and ecological scale. The second is the issue of time scale; the frameworks of incentive, planning and process present in natural resource management which motivate sustainable use and consideration of inter-generational equity.

It has been suggested that “the sustainable use of wild living resources is enhanced if managerial jurisdictions match ecological and social scales” (IUCN 2001:2). Scalar requirements make this objective problematic. Ecosystem approaches to management, for instance, usually imply spatially large and sometimes trans-national jurisdictions. At the species level, the functional requirements of management vary widely: what is needed to manage a migratory international flyway is far different than the needs of a management regime for sand grouse. Socio-economic dynamics may dictate different managerial scales, in which the organisation of use and commoditisation of natural resources is arranged to accommodate local consumptive needs and local links to market structures.

Two contrasting policy thrusts in response to the inherent problems of matching jurisdictional scale to ecological and socio-economic imperatives are in evidence. One is “Big Government” policy, which seeks to further entrench current national jurisdictions, or indeed to absorb them into large international jurisdictions. Responding to developing insights about ecological inter-connectivity, to resource scarcity, to an expanding global economy, and to increasing claims for a “global commons”, this is an approach of comprehensive authority located at a few nodes across the spectrum of expanding scale requirements. It carries with it a strong internal logic: interrelationships of scale are best managed by a unitary jurisdiction, or by a few integrated jurisdictions. Given these points, it is not surprising that this perspective now constitutes a powerful contemporary policy direction.

The contrasting policy thrust, particularly prominent in the last two decades, is one which argues for a reduction in the scope and reach of jurisdictions and a corresponding increase in their number. This is the “Small is Beautiful” policy, to use Schumacher’s aphoristic phrase, an approach which seeks to place jurisdictions at local or communal levels. Small jurisdictions, it is suggested, have smaller transaction costs in management, and controls exerted through peer pressure are tighter and more efficient than the distanced prescriptions on which large jurisdictions have to rely. They are more transparent to their constituencies and thus more politically acceptable. Furthermore they can provide for governance at levels that the state has manifestly been unable to effectively reach. From the perspective of jurisdictional dynamics, “Small is Beautiful” can be taken to mean “Small is Better”.

---

<sup>1</sup> For a more extended discussion on scale see Murphree 2000(b.).

Both the “Big Government” and the “Small is Beautiful” perspectives have inherent problems in dealing with scale. For “Big Government” the problem is one of filling in the gaps between relatively limited loci of jurisdictional power. One response has been decentralisation; the retention of authority by these jurisdictions and the replication of this authority at lower levels through a number of nodes of delegated responsibility. This inflates bureaucratic and transactional requirements, and limited resources may restrict the reach of this approach. This is certainly the case in Sub-Saharan Africa, where the needs of collective commons management above the level of the household and below levels of formal sub-regional governance remain largely unaddressed or are consigned to some contemporary version of the “indirect rule” approach of the colonial era. More fundamentally, this response tends to separate authority and responsibility with the effects already mentioned.

The “Small is Beautiful” policy approach has a different problem, that of maintaining congruence across spatial, functional and ecological scale. While it addresses the issue of linkage between authority and responsibility through devolution it may lead to a jurisdictional atomization which has difficulty in dealing with these scale requirements. It also has the problem of the creation of robust organisational units in a large spectrum of local contexts that vary in their cohesiveness and experience.

The Zimbabwean context illustrates the complexities of scale discussed above. An obvious site of this complexity (outside our terms of reference) is the management of large water catchment areas that involve land in several tenure categories. The CPRs covered by this report are however not exempt. Woodland areas, especially in their service functions, provide values at local, regional and national levels. Economically valuable wildlife species may range across several tenure categories of land. These are cases where national jurisdictions, or coordinated regimes of smaller scale, appear imperative. At the same time it should be recognised that many CPRs are primarily localised in use and value and currently beyond the reach of the managerial capacities of state agencies. Scale is thus a complexity which forms a key policy issue, and is further addressed in Section V.

### **4.3 Equity**

“Equity” is a concept which can be approached from a variety of perspectives. It can be constructed on a moral or normative basis and be understood as equality or “sameness”, either of opportunity or achievement. Alternatively it can be approached from a more instrumental concern with social stability, as a condition of general social consensus on arrangements dictating entitlements among the constituent parts of the social whole. While rarely closely defined, we suggest that most current usage of the term combines these two perspectives in a manner that seeks to eliminate gross disparities arising from ascriptive status or structures which concentrate and maintain power in the hands of a narrow band of elites. Equity is thus a relative, dynamic and subjective concept, arising from both material conditions and normative perceptions.

These characteristics do not imply that the concept is unimportant; on the contrary it is one of high political, motivational and institutional salience. “Equity,” in effect becomes a synonym for “legitimacy” – the legitimacy of structures and processes of entitlements, controls and obligations that hold a broad social consensus of normative support.

Policy must consider equity of access and control over CPRs at both intra-local and local-national levels of interaction. Intra-local equity in access to natural resources has typically been affected by inter-household differentiation in power, particularly micro-level political power and inter-generational economic accumulation (Masst 1994, Scoones and Wilson 1989, Mugabe et al. 2001, Cousins 1992). The evidence is that under conditions of intensified production this profile continues (Southgate and Hulme 2001, Clayton and Woodhouse 2001).

Looking at the three CPRs on which this report concentrates, we can suggest that access to rangeland resources is highly skewed in favour of more wealthy households (cf. Section 2.3). Regarding woodland resources, there is little explicit evidence to suggest that at intra-locality levels poorer households are being progressively excluded from access. A possible exception to this lies in the commercialisation of certain resources where this may shift access and benefit in the direction of households with more local power or labour resources, or from women to men (Table 15; McGregor 1995, Hobane 1994). Regarding wildlife resources, it has already been suggested (Section 2.4) that access to wildlife revenues at the inter-local level is relatively equitable.

Commoditisation and its attendant entrepreneurship is however likely to exacerbate inequities at both intra-local and local-national sites of interaction. Local enterprises such as woodcarving in effect transfer the revenue from a CPR to those who exploit it. Those with capital can, through depasturing of livestock or the hire of labour, “free ride” on the grazing and woodland commons. Entrepreneurs external to localities can exploit local CPRs in this manner or through formally sanctioned contracts that marginalize or exclude local interests, (cf Box 4). As already suggested, commoditisation is a feature of CPP usage which is present and expanding. The policy complexity and challenge is to build on its potential to drive rural development while ensuring that its impact improves the livelihoods of the poor.

## 5. KEY ISSUES FOR CPR POLICY IN ZIMBABWE

This section identifies five key issues that CPR policy in Zimbabwe must address. The five do not constitute a comprehensive list, but they are central to any approach that seeks to inject a new dynamism into Zimbabwean CPR policy. The issues mirror aspects of what has already been discussed in this report as drivers of change and the complexities that inhibit or complicate policy responses to this change. In effect the discussion to this point indicates initial assumptions in the policy process. This section examines responsive policy options and their implications.

### 5.1 Scale and Devolution

Section 4.2 has introduced the issue of scale, suggesting that the core policy task is to match jurisdictional scale with social, functional and ecological scale requirements, bearing in mind the resources and capacities involved. This last *caveat* is important. States have reasons to prefer centrist jurisdictional arrangements that place all land and resources under state control but rarely have the capacities to effectively manage at this scale. A first test is therefore to determine what landscape and resources are to be considered essential national CPRs, and for which the state has adequate managerial resources. For CPRs falling outside this definition, other sub-state or non-state jurisdictions need to be provided by policy.

Two approaches to this divestment of central state responsibility are possible, decentralisation and devolution. The two are significantly different. Decentralization is the delegation of responsibility and limited authority to subordinate or dispersed units of hierarchical jurisdiction, which have a primary accountability upward to their superiors in the hierarchy. Devolution involves the creation of relatively autonomous realms of authority, responsibility and entitlement, with a primary accountability to their own constituencies.

Devolution is an approach that faces strong and entrenched opposition. The state, its private sector allies and its bureaucracies have their own appropriative interests in local resources and the state is loath to legitimate local jurisdictions in ways that diminish their ability to claim the benefits of these resources. States, even when they grasp the importance of local management and stewardship, thus prefer decentralization to devolution. This tendency, more than any other factor, is responsible for the failure of programmes ostensibly designed to create local natural resource management jurisdictions. Responsibility is divorced from authority and entitlement, and such programmes remain co-optive rather than empowering. Typically, such programmes remain, as Murombedzi comments regarding Zimbabwe's CAMPFIRE programme, "informed by a centralizing and modernizing ethic, even when decentralization shifts the nexus of this perspective to lower tiers of state governance." Thus, "in such cases the top-down preferences of central



government on communities have merely been replaced by the top-down preferences of local governments.” (Murombedzi 2001, 247,255)

In the last two decades, and under the impetus of the adoption by government of general policies of decentralisation, certain legislative changes have brought formal entitlements over CPRs closer to rural peoples, if by this we mean the Rural District Councils (RDCs). Taken together the Rural District Councils Act (1988) and amendments to the Forest Act (1996), the Communal Lands Forest Product Act (1987) and the Parks and Wild Life Act (1975) now effectively place legal authority over communal land resources in the hands of the RDCs. Seeking to push this momentum further, the Land Tenure Commission (LTC) recommended that “village communities” should be made the basic unit of tenure, CPR planning and usage. Village boundaries should be demarcated and registered, membership registered and village assemblies constituted for administrative functions, including the control of “grazing and other common land.” The LTC also recommended that in “the medium to long-term” village communities should “cease to be state land” and that the state should relinquish *de jure* ownership of Communal Land, creating a category of “traditional freehold” tenure. (LTC 1994, Vol. I: 49-52).

The report of the National Consultative Workshop (NCW) on the National Land Policy supports the main thrust of the LTC view that village lands be given *de jure* entitlement. In doing so, it provides the following perceptive commentary:

*“The contention between vesting of radical title in the state at one end, and in an individual entity, at the other end of the spectrum as exemplified by the positions taken by the Cabinet and the Commission, represents polarised positions on the reform of customary tenures in Africa. The former, which is really a colonial construct, has engendered a highly centralised, top-down land administration rendering customary land rights fragile and customary tenure insecure. The latter, which in effect is based on a Western system (Torrens’ system) of individualisation, titling and registration (ITR) has proved to be ineffective in transforming customary tenures as it was envisaged to do. The current wisdom therefore is to find a way of modernising and democratising customary tenure without losing its traditional legitimacy and acceptability by rural communities. This is the position which is translated into our recommendation that the radical title in village lands be vested in the Village Assembly.” (Shivji et al. 1999, 34).*

Government response to the LTC recommendations has been to accept the suggestions for the formation of “village assemblies” and the demarcation of their boundaries, as provided for in the Traditional Leaders Act of 2000. Following a Cabinet decision the Act does not, however, empower village assemblies with *de jure* ownership of land or resources, and makes any planning or use of land and resources subject to the approval of the RDC “which shall be the administrative

authority with overall control over the use and allocation of all Communal Land” (Section 26(1)).

Zimbabwe’s CPR policy is thus still stuck in a decentralisation approach, which is a fundamental obstacle to its dynamic reform. A shift to a devolutionist stance would be the single most important component to revitalising CPP policy. It would provide the authority needed for strong, locally contextualised, regimes of CPR management. It would enable localities with the basis to become economic enterprises in their own right, with responsibilities for success or failure sharply delineated and enable them to experiment, evaluate and adapt in a mode drawing them much closer to the approached of professional science. Local perspectives strongly support such a shift but recognise that this faces strong opposition from the politico-bureaucratic establishment. The Chilo Workshop thus advocated a stochastic strategy to advance this objective. R.D.C.s should develop action plans for devolution to strengthen momentum for the acceptance of this direction (cf. Appendix A, section 6), making advances through incremental *de facto* appropriation as aspects of devolution. Recognition of fears in the politico-bureaucratic establishment that they might be the losers in such a shift should also be present, promoting the understanding that devolution is not an either/or local versus national jurisdictional issue but rather the assignment of appropriate and complementary jurisdictions across a scale of ecological and functional management requirements. Depending on ecosystem and species specifics, some of these must fall under state jurisdiction. Others more appropriately and efficiently should be assigned to local jurisdictions, with the state assuming a coordinative and facilitative role.

## 5.2 Land Redistribution

Land distribution is the second key CPR issue that we underscore because of the rapidity and magnitude of the changes that have recently occurred. (cf. Sections 1.2 and 3.2). As noted, it is impossible to quantify at this point in time the amount of land that these changes will place under CPR regimes, but it is clear that this will be extensive. Currently *ad hoc* resettlement has resulted in the relatively uncontrolled exploitation of natural resources with alarming consequences, as the Ministry of Environment and Tourism’s plan for resettlement admits:

*“Apart from reports received, my Ministry has carried out inspections in some of the designated farms and there are indications of depletion of natural resources in these areas and those that have already been allocated to new settlers. The new settlers are clearing vegetation for cultivation, construction and firewood purposes. If the vegetation clearance is not managed properly deforestation will cause soil erosion, land degradation and siltation of rivers.”*  
(Govt. of Zimbabwe, MET, 2001:1)

Faced with this situation, policy needs to move rapidly to devise and install local collective regimes for the control of CPR use where resettlement takes place in the Model A, and B modes along the lines already devised for communal lands through “village assembly” control. This will however require extension services of a magnitude which government is currently unable to provide. Furthermore the scepticism of the Chilo Workshop about the ability of new settlers to collectively cooperate in this mode (cf Appendix A) is well founded.

Where possible therefore the alternative of resettlement through surveyed individual, self-contained farm plots, suggested at the Chilo Workshop (cf. Appendix A and Section 3.2), should be considered. Importantly however such units should be large enough to be viable in terms of household requirements, size being determined by region and local resource richness. This may inhibit political acceptance of such a policy approach since it reduces the number of households that can be resettled in a given area. The alternative of smaller plots, or Model A or B schemes, is however likely to lead to overpressure on available resources in the longer term. As with other land redistribution issues, the long-term viability fo CPRs in these approaches will depend on national economic recovery providing household benefit streams from wage labour employment and urban economic growth.

### **5.3 Commoditisation and Equity**

The complexities of this issue have already been discussed in Section 4.3, with the suggestion that the dynamic of commercialisation and entrepreneurship needs to be encouraged but controlled to mitigate negative impacts on the economically and socially disadvantaged.

This report has already demonstrated that access to CPR resources in common property tenure contexts is differentially distributed at intra-local levels, critically determined by household access to capital, labour and power in local decision-making. This is particularly true of rangeland resources. Commoditisation is likely to exacerbate these differentials.

These are however policy approaches which can modulate this effect. One is to collectivise enterprise based on local CPR resources, as in the case of the CAMPFIRE programme. Here the result has been a remarkably equitable distribution of value at intra-local levels, as discussed in Section 4.3. Another is to regulate access to CPRs equitably across community household membership by the allocation of harvesting permits and quotas. This approach has however the disadvantages of requiring very strong local regulatory organisations with extensive transaction costs, and does not cater to households unable to uptake quotas

because of labour restrictions.

A third approach is to convert communal CPR access into specific, tradeable entitlements distributed equitably to member households. This in effect promotes intra-local commoditisation of equitably distributed entitlements to the local commons. Entitlements to the grazing commons, for instance, can then be rented to livestock holding households by those without livestock, ensuring that they receive value for their share in the commons and eliminating “free-riding.” The approach also separates entitlements in the CPR base from benefits derived from entrepreneurship. For instance, a local woodcarving cooperative would be required to pay for wood harvested, the proceeds being paid into the communal coffers to which each household has an entitled share. The cooperative, for its part, would be entitled to recover its production costs and receive the profits of its enterprise.

Like the other alternatives discussed, this third would require efficient local organisational arrangements and involve transaction costs. It does however have considerable potential to simultaneously promote both equity and entrepreneurship. The ideas behind it are not new but they have not yet been seriously tried and policy should address them through experimentation and adaptation.

Policy also needs to address the issue of local/national equity. As already discussed, through its retention of the “ownership” of natural resources the political and private sector centre has effectively expropriated the commercial values of communal/resettlement land CPRs. This is particularly the case in respect to timber (cf. Box 4) but also applies to a considerable degree to wildlife resources at the RDC level. Tenure devolution to sub-district locality levels is clearly an approach which policy may take to deal with this inequity, either directly through legislation or more incrementally through the creation of village trusts.

#### **5.4 Organisational Capacity and Costs**

The discussion in Section 5.3 above has emphasised the importance of organisational capacity at local levels. Arguments against devolution often suggest that this capacity does not exist, citing lack of education and experience, local corruption and improvidence as the reasons. We do not dispute the fact that experiments in *de facto* devolution show a mixed record of organisational performance. This is not surprising since collective organisational performance anywhere depends on the presence or absence of social capital, social energy and collective will. It also requires training, and devolutionist policy must provide for this.

More fundamentally, however, we suggest that organisational capacity building is usually inhibited by the absence of a central motivating characteristic required for its development – authority. Thus sequencing is critical in the devolutionary process. Even committed devolutionists tend to see devolution as a stochastic, step-by-step

process in which authority is conferred in incremental tranches as local competencies in management and responsibility are progressively demonstrated. “Show us that you can manage responsibly and then we will give you the authority to do so” is the watch phrase. However well intentioned, this stance places local institutions in a “Catch-22” position since authority is a pre-requisite for responsible management.

Case studies of some of the few relatively successful examples of local level institutional development in natural resource governance in Southern Africa (Makuleke, Turner and Meer 1999; Masoka, Dimbi 1998, Nabane 1997; Mahenye, Murphree 2001a) argue strongly for a different sequence in the development of local jurisdictions. Common to all three of these examples is the fact that local people, by aggressive assertions of their own proprietorship, initially gained the *de facto* status of devolved authority. We can thus infer that status provides the essential motivation for such development; clearly defined rights and responsibilities should be recognized as the basis for organisational evolution rather than being held out as its reward. Organisational evolution always involves experiment, and without authority such experiments are both methodologically and substantively defective.

The development of organisational capacity importantly must consider the management costs involved. Any strategy which urges the devolution of authority and responsibility must take into account the need for financial autonomy in administration and management. Without this, a status of dependency remains and management lacks the status to discharge its responsibilities with authority. Put simply, the reason that so many local organisational structures are weak is that they operate solely as administrative and control systems and have no mandate to generate revenues.

The state (or its decentralised sub-state entities) clearly has a claim on a portion of revenue generated from CPRs at local levels for the services it renders. However the currently prevailing system, in which the state captures all collectively generated revenues and then disperses a portion of them to local producers at its discretion, is not conducive to transparent local/state relations, local jurisdictional self-sufficiency and prudent budgeting, or to perceptions of equity. Robust devolution to local jurisdictions would require a different approach, in which such regimes are legally empowered to enter into contractual relationships in their own right, be in receipt of all revenues generated and then be taxed on such revenues for services provided by government. Revenue and taxation flows are thus an important policy issue in CPR management.

## 5.5 Process in Policy Formation and Evolution

Process in policy creation and change is itself a policy issue. If at any point in the policy process significant stakeholders are not involved policy may be misdirected. This emphasis on full and representative participation in policy processes in the theme of this sub-section.

Zimbabwean environmental and natural resource policy, and its roots in the cognitive stances of the scientific-bureaucratic establishment, has already been discussed (cf. Section 4.1). It has been described as technician, proscriptionist and centrist in the basic profile.

It has also been criticised for being fragmented in its legislative manifestations. Aware of this criticism, government produced a draft Environmental Management Bill in 2000, with the following stated objectives:

- To provide a general environmental legal foundation for all environmental laws of Zimbabwe based on sustainable development.
- To identify and address inconsistencies, overlaps and duplication in environmental laws of Zimbabwe.
- To ensure that environmental decisions are fair and equitable and allow the full participation of all its citizens.
- To develop a fair yet effective system of incentives and penalties.
- To integrate Environmental Impact Assessment (EIA)
- To ensure that people have a greater awareness of environmental issues.

Unfortunately, the 2000 Draft Bill fell far short of providing effective directions to meet these objectives. Instead of taking a radical approach (i.e. one which addresses root causes and builds on these) its approach was one that massages current legislation – more of the same in a revised form. Chitsike comments:

*“It would appear that the Draft Environmental Management Bill does not take into account the very objectives and concerns that brought about its review. These include the participation of various organizations, persons and the administrative structures of governance, and the issues of coherence and consistency. The Bill appears to be simply an amendment of the Natural Resource Act. These omissions constitute serious problems with the Bill.”*  
(Chitsike 2000, 15)

Chitsike goes on to analyse specific deficiencies, which include failure to address the central issue of the locus of proprietorship, failure to provide specifics on the integration of legislation, failure to address sustainability in the integration of

environmental and development objectives, failure to address intellectual property rights and failure to adopt an adaptive approach to environmental use (Chitsike 2000: 16-19). It would appear that policy perspectives are still locked in to the centrist and bureaucratic stance that is the legacy of the colonial past.

In the event the Bill was re-examined and produced as a second draft in August 2001 (Govt. of Zimbabwe 2001 b). The re-draft goes some way towards meeting Chitsike's point about integrating legislation, establishing precedence for environmental legislation (Section 3.2). However on his other criticisms there is little or no change. On the point of stakeholder participation two principles have been added:

- “(c) the participation of all interested and affected parties in environmental governance must be promoted and all people must be given an opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation;*
- (d) environmental education, environmental awareness and the sharing of knowledge and experience must be promoted in order to increase the capacity of communities to address environmental issues and engender values, attitudes, skills and behaviour consistent with sustainable environmental management;” (Section 4.2)*

A National Environmental Council has been added, but no seats on this Council are reserved for community representatives, whose interests are presumed to be served by the Permanent Secretary of Local Government. If the Bill is passed, policy will still be locked in to the centrist and bureaucratic stance that has marked past.

Equally, little change in the local initiation of CPR policy can be expected to flow from the new act. Communal sentiment is strongly in favour of local participation in planning and policy (cf. Appendix A, pp. 7-8) but there is little recognition of this desire or its importance, nor is there any specific set of provisions which further principles (c) and (d) quoted above. In our view the exercise should start again with participatory initiation being incorporated through a commission of inquiry charged with holding extensive consultations at local levels, as in the case of the Land Tenure Commission.

Communal participation in policy is not however encompassed solely through contributions to commissions of enquiry or membership on boards. It starts with experimentation in local contexts of authority and responsibility. By “experimentation” we mean more than simple trial and error. We mean a chain of incremental learning which defines objectives, identifies options, selects and implements approaches, monitors results and adapts objective and action on the basis of these results in a continuous and iterative process. Rural peoples have, of course, been doing this for

millennia and in doing so have provided the basis for much of what we now know about agricultural production and the uses of flora and fauna. But in a contemporary world, where local use is constrained by super-local regulation, they have little room for experiment and their role is confined to being the providers of “indigenous technical knowledge” as an informational adjunct to “professional science.” Authority opens up experimental space for local jurisdictions and provides a new basis for collaboration between civil and professional science.

At national levels the policy process should involve the same path of incremental learning. “Policies are experiments; *learn from them.*” (Lee 1993:9. Italics in original.) This injunction reminds us of the imperative for policy to be dynamic, an iterative process of unfolding knowledge informing negotiations between all significant stakeholders regarding their use and management of nature.



## 6. QUALIFIED SUCCESS IN POLICY INNOVATION AND IMPLEMENTATION

To this point our report has built up a profile of CPR policy in Zimbabwe which shows little change in substantive content and direction since its initial crystallisation in the early colonial period. Controlled by state interest and informed by the cognitive perceptions of a scientific/bureaucratic establishment it has been centralist, technicist and proscriptive in its basic dimensions. Even under the influence of the new generalised acceptance by government of policy thrusts towards communal participation and decentralisation this “command-and-control” approach has not essentially changed. In a study of four cases Keeley and Scoones conclude that in two- the District Environmental Action Planning process (DEAP) and reform in the Department of Natural Resources - “much participation is ‘instrumental’ and only succeeds in reiterating earlier narratives and technocratic approaches...” (Keeley and Scoones 2000:1).

It is thus not surprising that case studies of success in policy innovation and implementation are scarce. Some do however exist. With whatever qualifications we must attach to these successes, they are nevertheless important in showing that policy stasis can be modified in the face of inertia, and in pointing to entry points for intervention. This section provides two such cases, one of which has an extended and well documented history, and one which draws from the Keeley and Scoones study.

### 6.1 The CAMPFIRE Programme<sup>1</sup>

The CAMPFIRE programme has already been mentioned in this report in connection with wildlife resources, even though it was originally formulated to cover all natural resources in communal lands. Its full title, “The Communal Areas Management Programme for Indigenous Resources” reflects this. This notwithstanding, CAMPFIRE has largely been a wildlife programme and its sponsorship by the Department of National Parks and Wild Life Management is significant. Its inception by the Department’s technical and scientific establishment represents an exception to this report’s earlier generalisation that such establishments are invariably linked to centralist and technicist approaches. Why this exception should have occurred is of interest to this report.

In their review of national legislation affecting CPR use, Campbell *et al.* suggest that wildlife policy has moved the furthest towards devolution based on “...the one positive policy, the National Parks and Wild Life Act of 1975...” (Campbell, *et al.*, 1998: 58). This legislation, as amended in 1982, has formed the legal platform on which the CAMPFIRE programme has developed.

---

<sup>1</sup> For a more extended history and analysis see Murphree 1997 b.

A vast literature on CAMPFIRE and related issues has accumulated since 1985 (Over 500 references listed in Dix, 1996). Unfortunately, almost all of this literature ignores its policy roots or its foundation statement, published by Martin in 1986 (Martin, 1986).<sup>1</sup> This document sets out the original CAMPFIRE objectives as follows:

- a) *To initiate a programme for the long term development, management and sustainable utilisation of natural resources in the Communal Areas.*  
*The programme would involve forestry, grazing, water and wildlife.*  
*The initial target areas would be remote communal lands in Regions III, IV and V on the periphery of Zimbabwe.*  
*Communities would join the programme on a voluntary basis.*
- b) *To achieve management of resources by placing the custody and responsibility with the resident communities.*  
*Under the programme communities would be assisted to set up Natural Resource Co-operatives with territorial rights over defined tracts of land called Communal Resource Areas within the Communal Lands.*  
*All adult males and females in the community concerned would be eligible as shareholders in the co-operative.*
- c) *To allow communities to benefit directly from the exploitation of natural resources within the Communal Resource Area. Benefits would take the form of income (shareholder dividends), employment (by the co-operative), and production (such as wildlife meat).*
- d) *To establish the administrative and institutional structures necessary to make the programme work.”*

(Martin 1986, 17 - Emphases in the original)

Martin adds the following important comment on these objectives:

*“The key institutional change is the reorganisation of communities to operate as land and asset management associations. This involves the transfer of management rights to a community level, the right of communities to earn income directly from natural resources, and the territorial control of communal land by resident communities.” (Martin 1986, 18)*

Lying beneath this original profile of CAMPFIRE were two sources of policy formulation:

- Scholarship from conservation biology which emphasised a systemic, sustainable use approach to conservation; and from social science, especially Common Property Theory.
- Government's own policy experiment in devolution concerned with wildlife as

---

<sup>1</sup> Martin was Assistant Director (Research) in the Department at the time.

embodied in the Parks and Wild Life Act of 1975, which had successfully achieved a marked improvement in wildlife numbers and ecological conditions on private lands (Child, 1995).

The policy which informed the 1975 Parks and Wild Life Act, and subsequently CAMPFIRE, is clearly stated in a policy statement issued by the Department of National Parks and Wild Life Management (DNPWLM) in 1989:

*“Government’s policy for wildlife is an integral component of its overall land use policy defined in the National Conservation Strategy.*

*Recognising that only 17% of Zimbabwe consists of arable land, government regards wildlife management in all its diverse forms as a legitimate land use which may be the most appropriate or highest valued form of development in many areas. The government recognises the potential merits of development based on indigenous species of flora and fauna rather than imported exotics.*

*Outside the Parks and Wild Life Estate, government views wildlife as a resource capable of complementing domestic livestock and will favour neither one above the other in the development of the country. It will rather allow economic processes to determine the outcome of competition.*

*The government has no prejudice against any form of wildlife utilisation provided it falls within society’s accepted norms of animal treatment and within the relevant laws of the country.” (DNPWLM, 1989, 7).*

This was, for a formally conservation agency, a radical statement “placing wildlife outside of parks in the realm of economics and land use rather than in the realm of conservation *per se*,” (Murphree 2001a, 43). It was economically instrumentalist, developmentalist and implicitly devolutionist in its perspective.

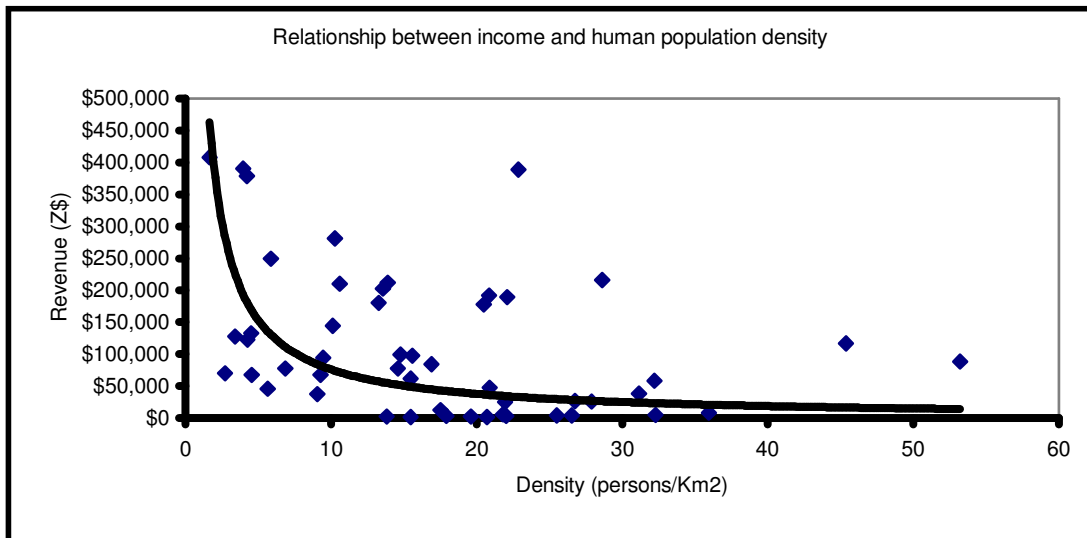
In the event CAMPFIRE, as originally formulated by DNPWLM, struck the shoals of political and administrative centrism, particularly in regard to its robust devolution. A negotiated compromise was reached in which the notion of self-determined natural resource cooperatives with *de jure* rights over planning, management, revenues and revenue rights and territorial control was set aside. VIDCOs and Wards would be equated to “producer communities” with the right to plan for and manage the resource and its revenues, subject to the approval of RDCs. Formal authority over wildlife would be devolved from the Ministry of Environment and Tourism (MET, as it then was) to RDCs which, as legal *personae* would be responsible for contracts with the hunting and tourism industry and be in direct receipt of revenues derived. To preserve the Programme’s principle of linking input and output, production and benefit, RDCs were to follow Guidelines issued by DNPWLM which dictated that such revenues would be distributed to the “producer communities” in proportion to the ward source of this income in a formula where RDCs could retain 15% of revenue as a levy (or tax) and up to 35% for district wildlife management costs.

These concessions having been made, the Programme received Cabinet approval in late 1988, and by 1995 there were 25 districts that had been gazetted as wildlife authorities, or “Appropriate Authorities” in the language of the 1982 amendment of the Parks and Wild Life Act. (See Murphree 1997b, Jones and Murphree, 2001 for detail on the negotiations involved in these compromises).

The performance of CAMPFIRE since its formal inception in 1988 shows a highly mixed record of success and failure. Most of this variability is attributable to RDC conformity/lack of conformity to the Guidelines, and to resource/human population ratios. From 1989-1996, CAMPFIRE earned a total of Z\$66,246,055 (US\$9,372,966 adjusted for exchange rates) for RDCs, with more than 50% of this earned by three RDCs in the Zambezi Valley, reflecting their relatively rich wildlife resources. In two cases, income from wildlife exceeded all other RDC revenues and in eight cases exceeded all other locally generated income between 1989 and 1993 (Bond 2001: 232-233).

At local or “producer community” levels the record is similarly mixed, depending on the two variables mentioned. In some cases, where the wildlife resource is abundant and the human population relatively low, and where RDCs have complied with the Guidelines, financial values have exceeded Z\$1000 per household. In such cases, local support for CAMPFIRE is strong. More typically these conditions do not pertain, and Bond finds that the median (for all CAMPFIRE districts) of wildlife revenue at household levels is low, constituting less than 10% of gross agricultural production in most years (Bond 2001, 235). In such conditions, local support for CAMPFIRE is likely to be low (Murombedzi, 2001).

The highly skewed levels of ward financial benefits from wildlife production under the CAMPFIRE programme, as correlated with resource/population ratios is demonstrated in Figure 2 below. (*Figures are for 1993*)



(Source: Bond, 2001: 238)

**Figure 2**

From this figure we can conclude that use of the wildlife CPR in the commercial mode of CAMPFIRE is unlikely to be a preferred land use option at local levels in the medium to long term in all but a few contexts, certainly not if it continues to be configured and implemented without full devolution of proprietorship to local levels. Even if it is reconfigured to include this mode of usage, it would be of significance only to wards with low population levels, the number of which is shrinking. This is not to suggest that the CAMPFIRE programme does not contain elements of central developmental significance, including local institutional innovation.

From this summation we can conclude that CAMPFIRE has only been a qualified and conditional success. Qualified in that its success has largely been limited to areas where wildlife resource/human demand ratios have been favourable, and in that its objective of transferring jurisdiction over CPRs to local sites has been blocked. Conditional, in that its continued success is dependent on RDC compliance with the guidelines set by the Department. The case study does show however that a government initiated programme can motivate an approach to commoditisation which promotes equity at intra-community levels and enhances motivations for local organisational control for the use of CPRs on a sustainable basis. In this dimension CAMPFIRE has coalesced “top-down” and bottom-up” imperatives, providing an example which has been broadly diffused throughout the country in user and policy contexts. Its full dynamic will however only be unleashed when devolution to sub-district land and CPR jurisdictions becomes part of policy and finds reality in practice.

## 6.2 Participatory Agricultural Research and Extension in Masvingo

Our other example comes from the Keeley and Scoones examination of farmer participatory research and project work in the Masvingo province under the broad aegis of AGRITEX and three donor/NGO groups.<sup>1</sup> Taken together, these initiatives have had considerable success in integrating professional and civil science insights, localising innovation and enhancing communal institutions for the control of agricultural practice and CPR use. The related activities were, in effect, experiments in the iterative mode discussed in Section 5.5 and have lasted over a number of years. Operating in an arena from the local to the regional office of Agritex, these activities found a site where “policy spaces can... emerge where actor-networks can be constructed promoting more fundamentally ‘empowering’ forms of participation in policy processes” (Keeley and Scoones 2000:1).

Keeley and Scoones identify several factors contributing to this new co-production of science and policy:

- a) Firstly, perspectives in Agritex, government’s largest extension agency, have undergone considerable internal review, driven by the realisation that its conventional approaches were not producing desired results. Under a process termed “change management” this has enabled Agritex personnel to experiment with farmer-oriented solutions. Keeley and Scoones quote a “key figure in the process” as follows: *“We learnt that extensionists should be partners not teachers; there should be open diagnosis and we should be less production-oriented, looking instead at the full range of income earning possibilities. We need client assessment, more stakeholder involvement, peer assessment. Not the old attitude of I’m the expert for this ward...the ‘expert assistance model of development’ is nonsense.”*
- b) Since the early 1990s financial cut-backs in the public sector had led to increasing strains on the resources needed by Agritex to fulfil its mandate. It was looking therefore for extension means which were less of a direct cost on the department, it was looking for partners and it was looking for funds. The NGO partners involved provided the last two, while the approach taken held promise of more cost-effective extension.
- c) The researchers involved engaged in direct dialogue and analysis with farmers, thus cutting out large detours in the conventional farmer → researcher → policy maker → extension agency → farmer technician paradigm. Experiment thus became a unified, collective and concurrent exercise rather than a series of stages each conducted by different actors.

---

<sup>1</sup> The Chivi based Intermediate Technology Group project, the IRED/GTZ Integrated Rural Development programme in Gutu and the Conservation Tillage farmer experiments.

- d) The effect was to create new actor networks in which farmers, researchers and extension workers had more confidence in each other and were able to shorten the time frames necessary for research and validation. “The effective linking of actors across the conventional divides offers the potential for new forms of knowledge and practice to enter the policy process” (Keeley and Scoones 2000: 26)
- e) Validation of successful experiments in the form of on-the-ground demonstration has a far more powerful knowledge transfer effect than conventional forms of publication and verbal exhortation. “Experiments are set up, key people witness what is claimed and, if they support it, facts are extended.’ Such witnesses may, in fact, become “policy entrepreneurs” (Keeley and Scoones 2000: 24,31).

### **6.3 Comparing the Case Studies: Some Implications**

A comparison of our two case studies is instructive. Both represent the same general objectives, those of rural development and improved household livelihoods, more effective natural resource management, rural empowerment and the conjunction of professional and civil science in policy formation and evolution. They exhibit however two different approaches to the achievement of this goal. One is to change the status and structural position of rural actors in the policy process through legislative entitlement. The other is to exploit policy spaces where new networks incorporating local actors can be configured to enter the policy process.

CAMPFIRE exemplifies the first approach. Conceptualised from the outset as a radical tenurial and jurisdictional reform it gained formal programmatic acceptance through its populist appeal, its correspondence with decentralisation to RDCs and its manifest success in commoditising communal wildlife CPRs. Its full realisation in the form of devolution to localised units of jurisdiction has however been blocked by the politico-economic centre, hence its success is qualified. None are more aware of the salience of this opposition than rural communities themselves, and thus their shift to advocacy of a more incrementalist, participatory district “planning for devolution” approach, expressed at the Chilo Workshop. (cf. Appendix A)

This tactical shift brings CAMPFIRE closer to the second approach exemplified by the Masvingo case study. In a cautious but positive assessment, Keeley and Scoones conclude that this case study represents more than a “participation gloss” masking the entrenched perspectives of the current policy-making establishment. It represents rather more fundamental shifts “where policy spaces have been opened up by new configurations of actor-networks, with new forms of bureaucratic practice emerging. This has often started at the local level through the discretionary actions of ‘street-level bureaucrats’, but sometimes has permeated upwards and outwards into structural organisational reform.”

Keeley and Scoones warn, however, that the Masvingo example remains limited “to renegotiations over technical knowledge, with little evidence of more direct challenges to structural issues of politics and power. It could be argued that such shifts, while on the surface looking progressive and transformative, operate on the margins and are not played out in more contentious and political arenas, such as around issues of land access” (Keeley and Scoones 2000:32) Access and entitlement thus remain unsettled business in the policy process, whichever approach is taken. Radical changes in these may have to await broader changes in Zimbabwean civic governance but in the meantime possibilities for the insertion of local interests and perspectives into the policy process should be fully exploited.

Finally it should be emphasised that this insertion in the policy process cannot be at points restricted to local agricultural and CPR management alone. It critically must apply to economic linkages between the local, the national and the international. It is on this set of linkages that the future livelihoods of rural peoples in Regions IV-V will depend. The limits of local biophysical resources, including CPRs, to meet growing population needs requires that such links be facilitated. Cumming and Lynam put the situation clearly for the Zambezi Valley in conclusions which we believe to have general salience for the semi-arid areas of Zimbabwe:

*“What cannot be provided from local production must come from outside of the local economy. Demand, in the broader national economy, for commodities such as labour, agricultural products, hunting safaris or crafts must make up the difference between what Zambezi Valley agro-ecosystems can produce and what households in these agro-ecosystems need. The critical issue facing national and district level planning agencies as well as communities in the Zambezi Valley is to facilitate links with the broader economy as a means to ensure that the exchanges between the two are mutually beneficial. Unbalanced transfers, such as food aid or excessive taxation are not in the long term best interests of either communities or Zimbabwe as a nation.”* (Cumming and Lynam 1997 Vol. I: 123)

Such links, to be robust, must be the result of negotiation, trade-offs and compromises between equal status parties for mutual benefit. Hence the emphasis in this report on full, legally recognised entitlements to local collective entities. However, it should also be recognised that this is a necessary but not sufficient condition. For these links to be robust, they must be forged through a policy process in which the parties also have equal status. Hence we have placed emphasis in this report on local organisational and institutional developments, which enable locality level parties to negotiate effectively from the strengths they inherently possess.

To summarize, this report suggests that CPRs are an important, and often unrecognised, component in the household economies of peoples in the semi-arid areas of Zimbabwe. Their efficient management and use is currently inhibited by



centrist, proscriptive approaches which conflict with local perspectives and imperatives. This leads to a policy and implementational stasis, which no amount of technical tinkering can resolve. To enhance the contribution of common pool resources to rural livelihoods, policy must be radically revisited within the context of national land use and economic planning, in a continuing process where rural people are empowered to play a new and central role.

## REFERENCES CITED

### A

Abel, N. and P. Blaikie (1986) Elephants, People, Parks and Development: The Case of the Luangwa Valley, Zambia. *Environmental Management*, 10(6): 735-751.

Alexander, Jocelyn and JoAnn McGregor (2000) 'Wildlife and Politics: CAMPFIRE in Zimbabwe' *Development and Change*, 31: 605-627.

Attwell, C.A.M., B.M. Campbell, R.F. du Toit and T.J.P. Lynam (1989) *Patterns of Fuelwood Utilization in Harare*. Special Report. Harare: Forestry Commission of Zimbabwe.

### B

Balderrama, S., T. Fenta, A. Hussein, C. Jackson, M. Midre, S. Scott, C. Vasquez, and J. de Vos (1988) *Farm Systems Dynamics and Risk in a Low Potential Area: Chivi South, Masvingo Province, Zimbabwe*. ICRA Bulletin 27. Wageningen, the Netherlands International Course for Development Oriented Research in Agriculture.

Beijer Institute (1995) *Policy Options for Energy and Development in Zimbabwe*. Zimbabwe Energy Accounting Project, Beijer Institute, Harare.

Berkes, F. and M.T. Favara (1989) Introduction and Overview, In: F. Berkes (Ed.), *Common Property Resources, Ecology and Community-Based Sustainable Development*, London: Belhaven Press, pp 1-17.

Bernstein, H. and P. Woodhouse (2000) Whose Environments? Whose Livelihoods? In: Woodhouse, P., H. Bernstein and D. Hulme (Eds.) *African Enclosures? The Social Dynamics of Wetlands in Drylands*. Oxford: James Currey pp. 195-213.

Bird, C., J. Clarke, J. Moyo, A.M. Moyo, P. Nyakunu, S. Thomas (1995) *Was Mrs. Mutendi Only Joking? Access to Timber in Zimbabwe*. Wildlife and Development Series, No. 6. International Institute for Environment and Development (IIED), London.

Blench, R. (1998) *Subsistence Strategies and Resource Management in Southeastern Africa: The case of the Rwenya Basin in northeast Zimbabwe*. ODI, funded by DFID, London.

- Böjo, J. (1993) Economic Valuation of Indigenous Woodlands, In: P.N. Bradley and K. McNamara (Eds.), *Living with Trees. Policies for Forestry Management in Zimbabwe*, pp. 227-241. The World Bank, Washington, D.C.
- Bond, I. (2001) CAMPFIRE and the Incentives for Institutional Change, In: Hulme, D. and M.W. Murphree (Eds.) (2001), *African Wildlife and Livelihoods: The promise and performance of community conservation*. Oxford: James Currey, pp. 227-243.
- Booth, V.R. (1991) *An Ecological Resource Survey of Mahenye Ward, Ndowoyo Communal Land, Chipinge District*, WWF Multispecies Animal Production Systems Project Paper, No. 20, WWF, Harare.
- Borrini-Feyerabend, G. and M. Brown (1997) "Social Actors and Stakeholders," in *Beyond Fences: Seeking Social Sustainability in Conservation*, G. Borrini-Feyerabend, ed. Gland: IUCN. Volume 2, pp.3-5.
- Bradley, P.N. and P. Dewees (1993) Indigenous Woodlands, Agricultural Production and Household Economy, In: P.N. Bradley and K. McNamara (Eds.), *Living With Trees: Policies for Forestry Management In Zimbabwe*. The World Bank, Washington, D.C.
- Bruce, John W. (1988) "A Perspective on Indigenous Land Tenure Systems and Land Concentration," in: *Land and Society in Contemporary Africa*, edited by R.E. Downs and S.P. Reyna, 23-51. Hanover, NH: University Press of America.
- Burford, N.F. (1989) *Firewood and Fencepole Acquisition and Consumption Patterns and Tree Planting Practices in a Zimbabwean Village, with Reference to their Implications on Agricultural and Woodland Productivity*. B.Sc. Thesis. University of Wales, Bangor.

## C

- Campbell, B.M., and R.F. du Toit (1985) *Relationships between wood resources and use of species for construction and fuel in the communal lands of Zimbabwe*. mimeo. Paper for 1985 AETFAT Conference, Missouri, St. Louis.
- Campbell, B.M., S.J. Vermeulen and Lynam, T. (1991) *Value of Trees in the Small-Scale Farming Sector of Zimbabwe*. IDRC-MR302e, Ottawa.
- Campbell, B.M., I. Grundy and F. Matose (1993) Tree and Woodland Resources – The technical practice of small-scale farmers. In: P.N. Bradley and K. McNamara (Eds.), *Living With Trees: Policies for Forestry Management In Zimbabwe*. World Bank Technical Paper, 210: 29-62.

- Campbell, B.M., J. Clarke, M. Luckert, F. Matose, C. Musvoto and I. Scoones (1995) *Local-level Economic Valuation of Savanna Woodland Resources: Village cases from Zimbabwe*. Hidden Harvest Project Research Series, 3(2). International Institute for Environment and Development (IIED), London. 86 pp.
- Campbell, B.M. (Ed.) (1996) *The Miombo in Transition: Woodlands and welfare in Africa*. Centre for International Research, Bogor, Indonesia.
- Campbell, B., N. Byron, P. Hobane, F. Matose, E. Madzudzo & L. Wily (1998), Taking Campfire beyond Wildlife: What is the potential? In: N. Christofferson, B. Campbell and J. Du Toit (Eds.) *Communities and Sustainable Use: Pan-African Perspectives*, Proceedings of the Pan-African Symposium on the Sustainable use of Natural Resources and Community Participation, Harare, Zimbabwe, June 1996, pp 57-71.
- Carter, S.E. and Murwira, K.H. (1995) Spatial variability in soil fertility management and crop response in Mutoko Communal Area, Zimbabwe. *Ambio*, 24: 77-84.
- CASS (1992) Centre for Applied Social Sciences, University of Zimbabwe. Unpublished research results on migration into the Zambezi Valley.
- Cavendish, W.P. (1996) *Environmental Resources and Rural Household Welfare*. Centre for the Study of African Economies, University of Oxford.
- Central Statistical Office (1998) *Statistical Yearbook 1997*. Harare: CSO, Zimbabwe.
- Central Statistical Office (various) *Annual Projections of Population*, (unpublished materials). Harare: CSO, Zimbabwe.
- Chavunduka, G.L. (1987) African Attitudes to Conservation. *Rhodesia Agricultural Journal*, 75(3): 61-63.
- Cheater, Angela (1990) The Ideology of 'Communal' Land Tenure in Zimbabwe: Mythogenesis Enacted? *Africa*, 60(2): 188-206.
- Chenje, M; L. Sola and D. Palecnzy (1998) *The State of Zimbabwe's Environment*. Ministry of Mines, Environment and Tourism, Government of Zimbabwe.
- Child, G. and R. Heath (1989) *Outdoor Recreational Patterns and Preferences among the Residents of Harare, Zimbabwe*. University of Zimbabwe Publications, Harare.
- Child, G. (1995) *Wildlife and People: the Zimbabwean Success*. Harare and New York: The Wisdom Foundation.

- Chitsike, L.T. (2000) *Decentralisation and Devolution of CAMPFIRE in Zimbabwe*. Centre for Applied Social Sciences (CASS), University of Zimbabwe, Harare.
- Chitsiku, I.C. (1981) *Nutritive Value of Foods of Zimbabwe*. Bulletin No. 104, Department of Food and Nutrition, Home Economics Research Institute, College of Home Economics, Iowa State University, Ames, Iowa.
- Clarke, J.M., W. Cavendish and C. Coote, (1996) Rural Households and Miombo Woodlands: Use, value and management. In: B.M. Campbell (Ed.), *The Miombo in Transition: Woodlands and Welfare in Africa*, Center For International Forestry Research (CFOR), Bogor, Indonesia, pp 101-135.
- Clayton, A. and P. Woodhouse (2000) Modernising Communal Lands. Evolving Resource Use in the Shoshong Hills, Botswana, In: Woodhouse, P. H. Bernstein and D. Hulme (Eds.) *African Enclosures? The Social Dynamics of Wetlands in Drylands*. Oxford: James Currey pp. 119-153.
- Cousins, B. (1989) *People, Land and Livestock*. Proceedings of a Workshop on the Socio-economic Dimensions of Livestock Production in the Communal Lands of Zimbabwe, held at Great Zimbabwe, Masvingo' 12<sup>th</sup> to 14<sup>th</sup> September 1998. Centre for Applied Social Sciences (CASS), University of Zimbabwe.
- Cousins, B. (1990) *Livestock Production and Grazing Rights in Communal Lands and Resettlement Schemes in Zimbabwe*, CASS Occasional Paper Series, University of Zimbabwe, Harare.
- Cousins, B. (1992) *Room for Dancing On: Grazing schemes in the communal lands of Zimbabwe*. Centre for Applied Social Sciences (CASS), University of Zimbabwe, Harare.
- Cousins, B., Weiner, D. and N. Amin, (1990) *The Dynamics of Social Differentiation in Communal Lands of Zimbabwe*, CASS Occasional Paper Series, University of Zimbabwe, Harare.
- Cumming, D.H.M. and T. Lynam (1997) *Land Use Changes, Wildlife Conservation and Utilisation, and the Sustainability of Agro-ecosystems in the Zambezi Valley*. (7 Volumes). Harare: World Wildlife Fund (WWF).
- Cumming, D.H.M. (2001) "Ecology and Land Use in Southern Africa: Some Implications for Agriculture in the Future." Address to the Annual Congress of the CFU, Harare, 1 August. 6pp.
- Cunliffe, R. N. (1998) *Natural Resources and Tourism within Nyanga District*. WWF Project Paper No. 57, Project No. ZW0025. Harare.

Cunningham, A.B. (1993) *African Medicinal Plants: Setting priorities at the interface between conservation and primary health care*. People and Plants Working Paper 1, pp. 1-50. UNESCO, Paris.

Cutshall, G.C.R. (1990) *Kanyemba/Chapoto Ward: A socio-economic baseline survey of community households*. CASS Occasional Paper Series, University of Zimbabwe, Harare.

## D

---

Deweese, A.P. (1994) *Social and Economic Aspects of Miombo Woodland Management in Southern Africa: Options and opportunities for research*. CIFOR Occasional Paper 2. 299 p.

Derman, W. (1991) *Recreating Common Property Management: Government projects and land use policy in the mid-Zambezi Valley, Zimbabwe*. Paper presented for the Second International Association for Common Property Management conference, 26-29 September, Winnipeg, Manitoba.

Derman, W. (1995) Environmental NGOs, Dispossession, and the State: Ideology and Praxis of African Nature and Development, *Human Ecology*, 23(2): 199-215.

DICE (1997) *Tourism, Conservation and Development, Volume IV, The South-East Lowveld, Zimbabwe*. Final Report to the Department for International Development by the Durrell Institute of Conservation and Ecology (DICE) and the Institute of Mathematics and Statistics (IMS) of the University of Kent.

Dimbi, L.R. (1998) *The Role of Leadership in the Structure and Functioning of Community Based Natural Resource Management Organizations: A Zimbabwean case study*. M.Sc. Thesis, School of Environment and Development, University of Natal, Pietermaritzburg.

Dix, A. (1996) *CAMPFIRE: An Annotated Bibliography, 1985-1996*. Centre for Applied Social Sciences (CASS), University of Zimbabwe, Harare.

DNPWLM (1989) *Policy for Wildlife*. Department of National Parks and Wild Life Management, Harare (DNPWLM). Approved by the Minister of Environment and Tourism, 22<sup>nd</sup> September 1989.

Dore, D. (1993) *Land Tenure and the Economics of Rural Transformation: A study of strategies to relieve land pressure and poverty in the communal areas of Zimbabwe*.

D. Phil Thesis, University of Oxford.

Drinkwater, M. (1989) Technical Development and Peasant Impoverishment: Land use policy in Zimbabwe's Midlands Province. *Journal of Southern African Studies*, Oxford University Press, 15: 287-305.

Du Toit, R.F., B.M. Campbell, R.A. Haney, and D. Dore (1984) *Wood Usage and Tree Planting in Zimbabwe's Communal Lands*. Report produced for the Forestry Commission of Zimbabwe and the World Bank.

Dzingirayi, V. (1994) *Campfire, politics and immigration in Binga: Co-management as a solution to the immigration problem*, CASS Occasional Paper Series, University of Zimbabwe, Harare.

Dzingirayi, V. (2000) Migration and the Future of CAMPFIRE in the Zambezi Valley, Zimbabwe, *Commons Southern Africa* (University of the Western Cape, South Africa), 2(1).

## E

---

Eilerts, G. (1994) *An Assessment of Vulnerability in Zimbabwe's Communal Lands*. Famine Early Warning System (FEWS), Harare, Zimbabwe.

Eilerts, G. (1997) *Zimbabwe Food Security and Vulnerability Assessment 1996/97*. Famine Early Warning System (FEWS), Harare, Zimbabwe.

Elliot, J. (1987) Soil Conservation in Zimbabwe: Past, policies and future directions. *Geographical Journal of Zimbabwe*: 18: 53-67.

Elwell, H.A. (1983) The Degrading Soil and Water Resources of the Communal Areas. *Zimbabwe Science News*, 17(9/10): 145-147.

Elwell, H.A. (1985) An Assessment of Soil Erosion in Zimbabwe. *Zimbabwe Science News*, 19(3/4): 27-31.

Emerson, C. (2000) *Natural Resources Management and Sustainable Livelihoods: Compatibility or Conflict*. [A summary of processes and evidence with three supplementary briefing sheets.] London: DFID

## F

---

Fiedler-Conradi, S. (1999) Poverty in Zimbabwe. (Chapter 1), In: *The Contribution of*

*German Development Co-operation towards Poverty Reduction in Zimbabwe*,  
March. Harare: GTZ

Fortmann, L. (1995) Talking claims: Discursive strategies in contesting property. *World Development*, 23: 1053-1063.

Fortmann, L. and J. Bruce (1992) *You've got to know who controls the land and trees people use. Gender, Tenure and the Environment*. CASS Occasional Paper Series, University of Zimbabwe, Harare.

Fortmann, L. and N. Nabane (1992) *Fruits of their Labours: Gender, property and trees in Mhondoro District*. CASS Occasional Paper, NRM Series, No. 7. Centre for Applied Social Sciences (CASS), University of Zimbabwe, Harare.

Foy, T (2001) *Forest, Conflict, Governance and Livelihoods: Making forest policies and institutions work for poor people*. DFID, South Africa.

## G

---

Gelfand, M., S. Mavi, R.B. Drummond, and E.B. Ndemera (1985) *The Traditional Medical Practitioner in Zimbabwe*. Gweru, Zimbabwe: Mambo Press.

Gomez, M.I. (1985) *A Resource Inventory of Indigenous and Traditional Foods in Zimbabwe*. University of Zimbabwe Publications, Harare.

Gore, C., Y. Katerere, S. Moyo, G. Mhone, D. Mazambani, P. Ngobese, D. Gumbo, and L. Leikvold (1992) *The Case for Sustainable Development in Zimbabwe. Conceptual problems, conflicts and contradictions*. ENDA – Zimbabwe and ZERO, Harare.

Grant, P.M., (1967) "The Fertility of Sandveld Soil Under Continuous Cultivation: The effect of manure and nitrogen fertilizers on the nitrogen status of the soil", *Rhodesia Zambia Malawi Journal of Agricultural Research*, No 5: 71-79.

Grundy, Isla and Gus Le Breton (1997/8) *The SAFIRE MITI Programme – a New Approach to Natural Resource Management in Communal Areas of Zimbabwe*, *Rural Development Forestry Network* (Overseas Development Institute, London), Network Paper 22, pp. 15-28.

Gumbo, D.J. (1993) Is there traditional management of indigenous forest resources in communal lands in Zimbabwe? In: G.D. Pierce and D. Gumbo, (Eds.), *The Ecology of Management of Indigenous Forests in Southern Africa*, Proceedings of an



International Symposium, Victoria Falls, Zimbabwe, 27-29 July 1992, pp. 83-97.

Gwaai Working Group (1997) *Local Valuation of Village Woodlands and State Forests: Cases from Matabeleland North in Zimbabwe*. IES Working Paper, Harare.

## H

---

Hancock, D. (1989) *Rural Household Energy Systems and their Relationship with Relative State of Woodland Cover*. Mimeo. Harare: ZERO.

Hasler, R. (1993) *Political Ecologies of Scale and the Multi-tiered Co-management of Zimbabwean Wildlife Resources under CAMPFIRE*. Centre for Applied Social Sciences (CASS), University of Zimbabwe, Harare.

Hawkes, R. (1995) *The Socio Economic Base of Communities in the NRMP Area*. Centre for Applied Social Sciences (CASS), University of Zimbabwe, Harare.

Hill, Kevin A. (1996) Zimbabwe's Wildlife Utilization Programs: Grassroots Democracy or an Extension of State Power? *African Studies Review*, 39(1): 103-121.

Hobane, P.A. (1994) *The Effects of the Commercialisation of the Mopane Worms*. CASS Occasional Paper Series. Centre for Applied Social Sciences (CASS), University of Zimbabwe, Harare.

Hobane, P. (2000) *The Commercialisation of Gonimbrasia belina in the Bulalimangwe District. Problems and Prospects*. M. Phil. Thesis, Centre for Applied Social Sciences (CASS), University of Zimbabwe, Harare.

Hot Springs Working Group (1995) *Local-level Economic Valuation of Savanna Woodland Resources: Village cases from Zimbabwe*. IIED Research Series, 3. Sustainable Agriculture Program, IIED, London.

Hughes, David McDermott (1999) Refugees and Squatters: Immigration and the Politics on Territory on Zimbabwe-Mozambique Border, *Journal of Southern African Studies*, 25(4): 533-552.

Hughes, David McDermott (2000) *To Spread Opportunity Across Space: Smallholder-Led Resettlement in Eastern Zimbabwe*. Harare: Southern Alliance for Indigenous Resources.

Hulme, D. and P. Woodhouse (2000) *Governance and the Environment*. Politics and Policy.

In: Woodhouse, P., H. Bernstein and D Hulme (Eds.) *African Enclosures? The Social Dynamics of Wetlands in Drylands*. Oxford: James Currey pp. 195-213.

Hulme, D. and M.W. Murphree (Eds.) (2001) *African Wildlife and Livelihoods: The promise and performance of community conservation*. Oxford: James Currey.

Hutton, J. and B. Dickson (2001) *Endangered Species, Threatened Convention. The Past, Present and Future of CITES*. London: Earthscan.

## I

IES (1997) *Local – Level Valuation of Village Woodlands and State Forests: Cases from Matabeleland South in Zimbabwe. Gwaai Working Group*. IES Working Paper 7. Institute of Environmental Studies (IES), University of Zimbabwe.

IFAD (1995) *Common Property Resources and the Rural Poor in Sub-Saharan Africa*. International Fund for Agricultural Development and the Centre for Development Services (CDCS) of the Free University, Amsterdam. Co-ordinator: S.D. Turner.

IUCN (2001) *Principles of Sustainable Use*. IUCN Workshop on Tools to Assess Sustainability of Uses of Wild Natural Resources, White Oak, Florida, 20-24 January 2001. 2pp.

## J

Jackson, J, P. Collier and C. Conti (1987) Rural Development Policies and Food Security in Zimbabwe: Part II, *Rural Employment Policies*, ILO, Geneva.

Jacos, Susie (1983) Women and Land Resettlement in Zimbabwe, *Review of African Political Economy*, 27/28: 33-50.

Jones, B. and M.W. Murphree (2001) The Evolution of Policy on Community Conservation in Namibia and Zimbabwe, In: Hulme, D. and M.W. Murphree (Eds.) (2001), *African Wildlife and Livelihoods: The promise and performance of community conservation*. Oxford: James Currey, pp. 38-58.

## K

---

Katerere, Y. (1985) The Fuelwood Crisis in Zimbabwe – and Some Possible Solutions. *Zimbabwe Science News*, 19(5/6): 71-73.

Katerere, Y, S. Moyo and L. Mujakachi (1993) The National Context: Land, agriculture and structural adjustment, and the Forestry Commission, In: P.N. Bradley and K. McNamara (Eds.), *Living with Trees: Policies for forestry management in Zimbabwe*. World Bank Technical Paper, No. 210. The World Bank, Washington, D.C.

Keeley, J. and. I. Scoones (2000) *Environmental Policy Making in Zimbabwe: discourses, science and politics*. University of Sussex, Institute of Development Studies. IDS Working paper 116.

Kinsey, B.H. (1999) Land Reform, Growth and Equity: Emerging Evidence from Zimbabwe's Resettlement Programme, *Journal of Southern African Studies*, 25(2): 173-196.

Kokwe, M. (1995) Land Use Practices in Dambos and Policy Implications for their Sustainable Utilization in Southern Africa. In: F. Ganry and B.M. Campbell (Eds.) *Sustainable Land Management in African Semi-Arid and Sub-humid Regions*, Proceedings of the Scope Workshop, 15-19 November, 1993, Dakar, Senegal, Montpellier, France, CIRAD, pp 29-33.

Koziell, I. (2001) *Diversity not Adversity. Sustaining Livelihoods with Biodiversity*. IIED, London.

Kumwenda, J.D.T., Waddington, S.R., Snapp, S., Jones, B. and Blackie, M. (1995) 'Soil fertility management research for the smallholder maize-based cropping systems of Southern Africa: a review', Network Research Working Paper, Harare:CIMMYT.

## L

---

Leach, M. and Mearns, R. (eds.) (1996) *The Lie of the Land: challenging received wisdom in African environmental change*. Londo: James Currey/International African Institute.

Lee, K.N. (1993) *Compass and Gyroscope: Integrating Science and Politics for the Environment*. Washington, D.C.: Island Press.

LTC (1994) *Land Tenure Commission, Report of the Commission of Inquiry into Appropriate Agricultural Land Tenure Systems*. Government Printers, Harare. M. Rukuni, Chairman.

Lunga, S.L. (1999) 'Migrants and Experienced Impacts to the CAMPFIRE Programme.'

Paper presented to the *International Conference on Natural Resources Management*, University of Zimbabwe, Harare, 26-29 January.

Lynam T., B. Campbell and S. Vermeulen (1995) *Contingent Valuation of Multipurpose Trees Resources in the Smallholder Farming Sector, Zimbabwe*. EEU Working Paper, 1994: 8, Gothenburg University, Gothenburg, (Sweden).

Lynam, T.J.P. (1996) *Anchored Scoring and Contingent Valuation: Estimating the value of multipurpose tree resources in Zimbabwe's Communal Areas*. Unpublished Masters Thesis, Dept. of Agricultural Economics, Michigan State University, East Lansing, Michigan, USA. 49p.

Lynch, O.J. and J. Alcorn (1994) Tenurial Rights and Community-based Conservation, In: D. Western, M. Wright and S. Strum (Eds.), *Natural Connections: Perspectives in Community-based Conservation*, Washington, D.C.: Island Press, pp. 373-392.

## M

---

MacGarry, B. (1998) *A Rural Poverty Datum Line in Zimbabwe, Measured in Hurungwe, February 1996*. Published by the Commission for Justice and Peace in Zimbabwe. Gweru: Mambo Press.

Makuku, J.S. (1993) Community Approaches in Managing Common Property Forest Resources: The case of the Norumedzo Community in Bikita. In: G.D. Pierce and D.J. Gumbo (Eds.), *The Ecology and Management of Indigenous Forests in Southern Africa*. Proceedings of an International Symposium, 27-29 July, 1992. Forestry Commission, Harare.

Mandondo, A. (1998) *The concept of Territoriality in Local Natural Resource Management and its Implications on Livelihood in Nyamaropa Communal Land*. Institute for Environmental Studies, University of Zimbabwe, Harare.

Marks, S.A. (1973) Prey Selection and Annual Harvest of Game in a Rural Zambian Community. *East African Wildlife Journal*, No. 11, pp 113-126.

Martin, R.B. (1986) *Communal Areas Management Programme for Indigenous Resources (CAMPFIRE)*. Revised version, Branch of Terrestrial Ecology, Department of National Parks and Wild Life Management, Harare.

Martin, R.B.(2001) Unpublished field data on cooperative wildlife management the Chizvilizvi Resettlement Area.

- Mashirigwani, N.A. (1983) The Present Nutrient Status of the Soils in the Communal Farming Areas of Zimbabwe. *Zimbabwe Agricultural Journal*, 80(2): 73-75.
- Masst, M. (1994) *Exploring Differentiation Among the Zimbabwean Peasantry*. CASS Occasional Series – NRM. Centre for Applied Social Sciences (CASS), University of Zimbabwe.
- Matose, F. (1992) Villagers as Woodland Managers. In: G.D. Pierce and P. Shaw, *Forestry Research In Zimbabwe*. Proceedings of the Anniversary Seminar: Forestry Research Advances in Zimbabwe, Zimbabwe College of Forestry, Mutare, pp 173-176.
- Matose, F. (1997) Conflicts Around Forest Reserves in Zimbabwe: What prospects for community management? *IDS Bulletin* 28(4): 69-79.
- Matose, F. and L. Wily (1996) Institutional Arrangements Governing the Use and the Management of Miombo Woodlands. In: B. Campbell (Ed.), *The Miombo Woodlands in Transition: Woodlands and Welfare in Africa*, CIFOR, Bogor, pp 195-219.
- Matowanyika, J.Z.Z. (1995) *Indigenous Knowledge Systems and Natural Resource Management in Southern Africa*. Report of the Southern African Regional Workshop, Harare, 20-22 April 1994. IUCN-ROSA, Harare.
- Matowanyika, J.Z.Z. and A. Mandondo (1996) *In the Shadow of Mount Muodzi: Indigenous knowledge systems, as ecological prudence, in the sustainable management of a local common property resource comprising terraced mountain slopes in Inyanga district in Zimbabwe*, IUCN-ROSA, Harare.
- Matzke, G. and D. Mazambani (1993) *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*. Occasional Paper Series, No. 54. Centre for Applied Social Sciences (CASS), University of Zimbabwe, Harare.
- Mazambani, D. (1993) Aspects of the use of Indigenous Wood Biomass Resources in Zimbabwe's Communal Lands: Case studies from Chivi and Zvishavane districts, Zimbabwe, In: *The Ecology and Management of Indigenous Forests in Southern Africa*, 292-300. Zimbabwe Forestry Commission and SAREC, Harare.
- Mazambani, D. (1995) Landuse in Sadziwa Ward: Manyika Communal Land. Paper

presented at the *Final International Session, Second Cohort of the Leadership for Environment and Development Program*. Harare: April 20 – May 3.

- Mazambani, D. (2001) *Social Acceptability of the Nyatana Wilderness Project*. Report of a Workshop held at Chibanguza Hotel, Harare: June.
- Mberengwa, I. (2000) *Small-scale Indigenous Rural Communities and Community Based Natural Resource Management Programmes in Marginal Areas of Zimbabwe*. Centre for Applied Social Sciences (CASS), University of Zimbabwe, Harare.
- McFarlane, M.J. and R. Whitlow (1990) Key Factors Affecting the Initiation and Progress of Gullying in Dambos in Parts of Zimbabwe and Malawi. In: *Land Degradation and Rehabilitation*, John Wiley and Sons Ltd, 2: 215-235.
- McGregor, J. (1991) *Woodland Resources: Ecology, policy and ideology – An historical case study of woodland use in Shurugwi Communal Area, Zimbabwe*. PhD Thesis, Loughborough University, UK.
- McGregor, J. (1995) Gathered Produce in Zimbabwe's Communal Areas: Changing resource availability and use. *Ecology of Food and Nutrition*, 33: 163-193.
- Moyo, S, P. Robinson, Y. Katerere, S. Stevenson and D.G. Gumbo (1992) *Zimbabwe's Environmental Dilemma: Balancing resource inequalities*. Harare: ZERO.
- Moyo, S. (1995) *The Land Question in Zimbabwe*. Southern Africa Regional Institute for Policy Studies. Harare: SAPES Books
- Mugabe, P.H., H. Hamudikuwanda and K. Marovanidze (2001) *Governance of Grazing Lands and Schemes in Zimbabwe with Emphasis on Schemes in Masvingo Province*. Commons Southern Africa Occasional Paper Series, Centre for Applied Social Sciences, University of Zimbabwe and Programme for Land and Agrarian Studies, University of Western Cape. 19pp.
- Muir, A. (1993) *Livelihood Strategies and the Household Economy in Binga District, Zimbabwe*. Save the Children Fund, U.K., published in Harare.
- Mukamuri, B.B. (1992) Ecological Religion: Local politics and conservation in south central Zimbabwe. In: P. Virtanen (Ed.), *Management of Natural Resources in Zimbabwe*. Report of the Research and Training Program on Energy, Environment and Development, University of Tampere, Unit of Peace Research and Development Studies, pp 46-166.
- Mukamuri, B.B. and W. Kozanayi (1999) *Commercialization and Institutional Arrangements Involving Tree Species Harvested for Bark: The case of Warburgia salutaris*,

- Berchemia discolor* and *Adansonia digitata* in Zimbabwe. Institute of Environmental Studies (IES), Harare.
- Mundy, V. S. (1995) *The Urban Poverty Datum Line in Zimbabwe*. Catholic Commission for Justice and Peace in Zimbabwe, Harare.
- Murindagomo, F. (1988) *Preliminary Investigations into Wildlife Utilization and Land Use in Angwa, Mid-Zambezi Valley, Zimbabwe*. M.Phil. Thesis, University of Zimbabwe, Harare.
- Murindagomo, Felix (1990) *Zimbabwe: WINDFALL and CAMPFIRE*, in: *Living with Wildlife: Wildlife Resource Management with Local Participation in Africa*, Edited by Agnes Kiss, 123-139. Washington, DC: The World Bank.
- Murombedzi, J.C. (1991) *Decentralising Common Property Resource Management: A case study of the Nyaminyami District Council of Zimbabwe's wildlife management programme*. IIED Drylands Network Programme, Issues Paper No. 30, December. International Institute for Environment and Development, London.
- Murombedzi, J.C. (2001) Committees, Rights, Costs and Benefits: The question of natural resource stewardship and community benefits in Zimbabwe's CAMPFIRE programme, In: Hulme, D. and M.W. Murphree (Eds.) (2001), *African Wildlife and Livelihoods: The promise and performance of community conservation*. Oxford: James Currey, pp. 244-255.
- Murphree, M.J. (1999) *SADC NRMP Peer Exchange Programme: Assessment Report*. Harare: SADC/NRMP.
- Murphree, M.W. and D.H.M. Cumming (1993) Savanna Land-use: Policy and Practice in Zimbabwe. In: M.D. Young and O.T. Solbrig, (Ed.) *The World's Savannas: Economic Driving Forces, Ecological Constraints and Policy Options for Sustainable Land Use*. UNESCO and the Parthenon Publishing Group, Paris.
- Murphree, M.W. (1994) The Role of Institutions in Community-based Conservation, In: D. Western and M. Wright, (Eds.) *Natural Connections: Perspectives in Community-based Conservation*. Washington, D.C.: Island Press, pp 59-61.
- Murphree, M.W. (1996) Approaches to Community Participation, In: *African Wildlife Policy Consultation, Final Report*. London: ODA, pp. 155-188.
- Murphree, M.W. (1997a) Common Property, Communal Property and Open Access Regimes. In: G. Borrini-Feyerabend, (Ed.) *Beyond Fences: Seeking Social Sustainability in Conservation*, IUCN, Switzerland, pp 59-61.

- Murphree, M.W. (1997b) 'Congruent objectives, competing interests, and strategic compromise: concept and process in the evolution of Zimbabwe's CAMPFIRE programme.' Paper presented at the conference on '*Representing Communities*' Helen, Georgia, USA, 1-3 June 1997. Reprinted as paper 2 in the Community Conservation Research series, Institute for Development Policy and Management, University of Manchester 1997. 51 pp.
- Murphree, M.W. (2000a) Community-Based Conservation: Old Ways, New Myths and Enduring Challenges. Paper presented to the conference on *African Wildlife in the New Millennium*, College of African Wildlife Management, Mweka, Tanzania, 13-15 December.
- Murphree, M.W. (2000b) "Boundaries and Borders: The Question of Scale in the Theory and Practice of Common Property Management." Paper presented at the Eighth Biennial Conference of the International Association for the Study of Common Property (IASCP). Bloomington, Indiana, June. 18 pp.
- Murphree, M.W. (2001a) Community, Council and Client: A case study in ecotourism development from Mahenye, Zimbabwe, In: Hulme, D. and M.W. Murphree (Eds.) (2001), *African Wildlife and Livelihoods: The promise and performance of community conservation*. Oxford: James Currey, pp. 177-194.
- Murphree, M.W. (2001b) Confronting Perversity: Surmounting Stalemate in Environmental Governance. Paper presented to the ERCC Seminar on "Governance, Property Rights and Rules for Woodland and Wildlife Management in Southern Africa, Harare.
- Mutepfa, F. (2001) *Perceptions and Practices on Land and Natural Resource Management in Zimbabwe*. Harare: ZERO.

## N

- Nabane, N. (1997) Gender Dimensions in the Communal Areas Management Programme for Indigenous Resources: A Zambezi Valley Community Case Study. M. Phil. Thesis, Centre for Applied Social Sciences (CASS), University of Zimbabwe, Harare.
- Neumann, Roderick P. (1998) *Imposing Wilderness: Struggles over Livelihood and Nature Preservation in Africa*. Berkeley: University of California Press.



- Nhira, C. (1992) Integrated Natural Resource Management in Rural Areas: Problems and opportunities in Kanyati Communal Area. In: B. Cousins (Ed.), *Institutional Dynamics in Communal Grazing Regimes in Southern Africa*. Proceedings of a workshop held in Harare, December 1990, Zimbabwe, pp 25-134.
- Nhira, C. (1992) *Local Control and Management of Forests and Environmental Resources in Zimbabwe*. CASS Occasional Paper – NRM Series. Centre for Applied Social Sciences (CASS), University of Zimbabwe, Harare.
- Nhira, C. and L. Fortmann (1993) *Local Control and Management of Forests and Environmental Resources in Zimbabwe: Institutional capacity*. Background paper for the Zimbabwe Forest Sector Review. Washington DC, World Bank Technical Paper, 210: 139-155.
- Nhira, C., Baker, S., Gondo, P., Mangoro, J. J. and Marunda, C. (1998) *Contesting Inequality in Access to Forests. Policy that works for forests and people*. Series No. 5, Zimbabwe. Centre for Applied Social Sciences and Forestry Commission, Harare and IIED, London.
- Nyamapfene, K.W. (1986) The Use of Termite Mounds in Zimbabwe Peasant Agriculture. *Tropical Agriculture (Trinidad)*, 63: 191-192.
- Nyamapfene, K.W. (1987) *A Short History and Annotated Bibliography on Soil and Water Conservation in Zimbabwe*. SADCC Soil and Water Conservation and Land Utilisation Programme Report No. 12, Maseru, Lesotho.
- Nyambara, Pius S. (1999) 'A History of Land Acquisition in Gokwe, Northwestern Zimbabwe, 1945-1997'. Ph.D. Dissertation, Northwestern University, Evanston, Illinois.
- Nyathi, P. (1991) 'The Use of Woodland Litter by Small-Scale Farmers in Masvingo Province, Zimbabwe.' Unpublished manuscript, University of Zimbabwe.

## P

- Peterson, J.H. (1981) *A Proto-CAMPFIRE Initiative in Mahenye Ward, Chipinge District: Development of a Wildlife Programme in Response to Community Needs*. Centre for Applied Social Sciences (CASS), University of Zimbabwe.
- Price Waterhouse (1994) *The Lowveld Conservancies: New opportunities for productive and sustainable land use*. Harare, Price Waterhouse Wildlife, Tourism and Environmental Consultancy.

## R

Rhodesia, Government of (1969) *Census of Population 1969*. Salisbury: Central Statistical Office.

## S

Schroeder, Richard A. (1999) *Livestock Populations and the Household Economy: a Case Study from Southern Zimbabwe*. PhD. Thesis, University of London.

Schumacher, E. (1973) *Small is Beautiful: Economics as if people mattered*. London: Bland and Briggs.

Scoones, I. (1990) Wetlands in Drylands: Key resources for agricultural and pastoral production in Africa. *Ambio*, 20: 366-371.

Scoones, I. (1991) Wetlands in Drylands: Key resources for agricultural and pastoral production in Africa. *Ambio*, 20: 366-371.

Scoones, I (1995a) Exploiting Heterogeneity: Habitat use by cattle in dryland Zimbabwe. *Development and Change*, 29: 221-237.

Scoones, I (1995b) Investigating difference: Applications of wealth ranking and household survey approaches among farming households in southern Zimbabwe, *Development and Change*, 26: 67-88.

Scoones, I. and B. Cousins (1994) Struggle for Control over Wetland Resources in Zimbabwe. *Society and Natural Resources*, 7: 579-594.

Scoones, I. and F. Matose (1993) Local Woodland Management, Constraints and opportunities for sustainable resource Use. In: P.N. Bradley and K. McNamara, (Eds.), *Living with Trees: Policies for Forestry Management in Zimbabwe*. World Bank Technical Paper, 210: 157-1988. World Bank, Washington DC.

Scoones, I. and K. Wilson (1989) Households, Lineage Groups and Ecological Dynamics Issues for Livestock Development in Zimbabwe's Communal Lands. In: B. Cousins (Ed.), *People Land and Livestock*. Proceedings of a Workshop on The Socio-Economic Dimensions of Livestock Production in Communal Lands of Zimbabwe. 12-14 September 1988, Masvingo. Centre for Applied Social Sciences (CASS), University of Zimbabwe, Harare.

Shivji, I.G., D. Gumby, S. Moyo, W. Ncube (1999) *National Land Policy Framework Paper*.

Discussion Paper produced under the auspices of the Ministry of Lands and Agriculture, Harare. Drafting team: I.G. Shivji (Team Leader), D. Gunby, S. Moyo and W. Ncube

Sithole, B. (1995) *Access To and Use of Dambo Resources in Mutoko and Chiduku Communal Lands in Zimbabwe*. SEI, Stockholm.

Sithole, B. and P.N. Bradley (1995) *Institutional Conflicts over the Management of Communal Resources in Zimbabwe*. Stockholm Environment Institute (SEI), Stockholm. 24 pp.

Sithole, B. (1996) Are Dambos Drying Out? Farmers' perceptions in Zimbabwe. In: B.M. Campbell (Ed.), *The Miombo in Transition: Woodlands and Welfare in Africa*. CIFOR, Bogor, pp 75-76.

Sithole, B. (1999) Use and Access to Dambos in Communal Lands in Zimbabwe: Institutional Considerations. D.Phil. Thesis, Centre for Applied Social Sciences (CASS), University of Zimbabwe, Harare.

Songsore, J. (1992) *The Decline in Common Property Resources in Rural Africa: The case of northern Ghana*. Notes for Common Property Workshop, Stockholm Environment Institute (SEI), Stockholm.

Southern Africa Sustainable Use Specialist Group, IUCN (1998) *Sustainable Use Issues and Principles*. Harare: SASUSG.

Southern Rhodesia, Govt. of (1931) *Land Apportionment Act*. Salisbury: Government Printer.

Southern Rhodesia, Govt. of (1942) *The Natural Resources Act*. Salisbury: Government Printer.

Southgate, C. and Hulme, D. (2000) Uncommon Property. The Scramble for Wetland in Southern Kenya. In: Woodhouse, P.,H. Bernstein and D. Hulme (Eds.) *African Enclosures? The Social Dynamic of Wetlands in Drylands*. Oxford: James Currey pp. 73-117.

Stockil, C. (1987) Ngwachumene Island: the Mahenye Project. *The Hartebeest* (Magazine of the Lowveld Natural History Society), 19: 7-11.

Swift, M., (1998), 'Ten years of soil biology and fertility research: where next?' in L.

## T

Taylor, R.D. (1996) 'Wilderness and the CAMPFIRE Programme: The Value of Wildlands and Wildlife to Local Communities in Zimbabwe.' Paper presented to the Wilderness Symposium, Waterberg National Park, Namibia, 24-27 June.

Thomas, S.J. (1991) *The Legacy of Dualism and Decision-making: The prospects for local institutional development in Campfire*. ASS/UZ and DNPWM Joint Working Paper Series, Harare.

Turner, S. and S. Meer (2001) *Conservation by the People in South Africa: Findings from TRANSFORM monitoring and evaluation, 1999*. Programme for Land and Agrarian Studies, University of Western Cape, Research Report No.7.

## U

Uphoff, N. (1986) *Local Institutional Development: An Analytical Sourcebook with Cases*. West Hartford, (Conn., USA): Kumarian Press.

## V

Vermeulen, S. (1994) *Consumption, Harvesting and Abundance of Wood Along the Boundary Between Mafungabusi State Forest and Gokwe Communal Area, Zimbabwe*. TREP (Tropical Resource Ecology Programme) Dept. of Biological Sciences, University of Zimbabwe, Unpubl. MSc. Thesis.

Vincent, V. and R.G. Thomas (1961) *An Agricultural Survey of Southern Rhodesia, Part 1 – Agro-ecological Survey*. The Government Printer, Salisbury.

## W

Wehmeyer, A.S. (1966) The Nutrient Composition of Some Edible Wild Fruits Found in the Transvaal. *South African Medical Journal*, 40: 1101-1104.

- Whitlow, J.R. (1979) *The Household Use of Wood Resources in Rural Areas*. Salisbury: Natural Resources Board.
- Whitlow, J.R. (1980) Agricultural potential in Zimbabwe. A factorised survey. *Zimbabwe Agricultural Journal*, 77(3): 97-106.
- Whitlow, J.R. (1984) A Survey of Dambos in Zimbabwe. *Zimbabwe Agricultural Journal*, 81: 129-138.
- Whitlow, J.R. (1987) A National Soil Erosion Survey for Zimbabwe. *Journal of Soil and Water Conservation*, 42(4): 239-241.
- Whitlow, J.R. (1988a) Soil Erosion and Conservation Policy in Zimbabwe: Past, present and future. *Land Use Policy*, October.
- Whitlow, J.R. (1988b) Soil Erosion – A History. *Zimbabwe Science News*, 22(7/8): 83-85.
- Wilson, K.B. (1989a) Trees in Fields in Southern Zimbabwe. *Journal of Southern African Studies*, 15: 369-383.
- Wilson, K.B. (1989b) The Ecology of Wild Resource Use for Food by Rural Southern Africans: Why it remains so important. Paper presented to the conference: *The Destruction of the Environment and the Future of Life in the Middle East and Africa*, 14-17 July 1989, Swansea, University of Wales, Swansea.
- Wilson, K.B. (1990) *Ecological Dynamics and Human Welfare: A case study of population, health and human welfare in Southern Zimbabwe*. Ph.D. Thesis, University of London, London.
- Wily, L.A. (2001) (Forthcoming in CASS Proceedings), "Democratising the Commonage: The changing legal framework for natural resource management in eastern and southern Africa with particular reference to forests." Paper presented to Second Regional Meeting of CASS/PLAAS on Legal Aspects of Governance in Community-Based Natural Resource Management (CBNRM), 16-17 October 2000, School of Government, University of Western Cape, Cape Town.
- Worby, Eric (1998) Tyranny, Parody, and Ethnic Polarity: Ritual engagements with the State in Northwestern Zimbabwe, *Journal of Southern African Studies*, 24(3): 561-578.

## Z

---

- Zimbabwe, Government of (1982) National Parks and Wildlife Act of 1975, as amended in 1982. Government Printers, Harare.
- Zimbabwe, Government of (1982) The Communal Lands Act. Government Printers, Harare.
- Zimbabwe, Government of (1985) The Communal Lands Act, SI 166 to Act 20 of 1982. Government Printers, Harare.
- Zimbabwe, Government of (1987) The Communal Lands Forest Produce Act. Government Printers, Harare.
- Zimbabwe, Government of (1988) Rural District Councils Act. Government Printers, Harare.
- Zimbabwe, Government of (1992) *Census 1992. Zimbabwe. Preliminary Report*. Central Statistical Office, Harare.
- Zimbabwe, Government of (1995) *1995 Poverty Assessment Study Survey Main Report*. Ministry of Public Service, Labour and Social Welfare. Government Printers, Harare.
- Zimbabwe, Government of (1996) The Forest Act: Chapter 19:05, Revised Edition. Government Printers, Harare.
- Zimbabwe, Government of (1996) *Draft Environmental Management Bill*. Ministry of Lands, Environment and Tourism. Harare: Government Printers.
- Zimbabwe, Government of (1998) Traditional Leaders Act (Chapter 29:17). Government Printers, Harare.
- Zimbabwe, Government of (2000) [Gazette Notices]. Government Printers, Harare.
- Zimbabwe, Government of (2001a) "Integrated Conservation Plan for Fast Track Land Resettlement." Ministry of Environment and Tourism, August. 14pp.
- Zimbabwe, Government of (2001b) (Second) *Draft Environmental Management Bill*, August. 90pp.
- Zinyama, Lovemore and Richard Whitlow (1986) Changing Patterns of Population Distribution in Zimbabwe, *GeoJournal*, 13(4): 365-384.
- Zinyama, L.M., T. Matiza, and D.J. Campbell (1990) The Use of Wild Foods During Periods

of Food Shortage in Rural Zimbabwe. *Ecology of Food and Nutrition*, 24: 251-265.

## APPENDIX A

# COMMON POOL RESOURCES MANAGEMENT: COMMUNITY EXPERIENCES AND PERCEPTIONS

Report on Workshop Held at Chilo Safari Lodge in Mahenye Ward

Chipinge District, Zimbabwe

**September 17, 2001**

**Hosted by the Centre for Applied Social Sciences,  
University of Zimbabwe**

**Compiled by  
David Mazambani**

This workshop was an output from a project funded by  
the UK Department for International Development  
(DFID) for the benefit of developing countries.  
The views expressed are not necessarily those of DFID.



## TABLE OF CONTENTS

	<b>Pages</b>
1. Background to the Workshop	94
2. Workshop Objective	94
3. Workshop Process	94
4. Highlights from Research Projects	95
5. Community Experiences	98
6. Crosscutting Issues	100
7. Concluding Remarks	103
 <b>ANNEXES</b>	
I List of Participants	104
II Workshop Programme	105

## **1. BACKGROUND TO THE WORKSHOP**

This workshop was held at Chilo Safari Lodge in Mahenye Ward, Chipinge District, as part of a one-year research Policy Research Project, which seeks to establish a common framework for the analysis of Common Pool Resource (CPR) issues. The research is funded by the British Government's Department for International Development (DFID) and conducted by a team of scholars from Cambridge University, India, Tanzania and Zimbabwe. The Zimbabwe component of the project involves the preparation of a CPR Country Paper based on reviews of literature on woodlands, rangeland and wildlife.

The Mahenye meeting was a "ground-truthing" exercise intended to enrich the research process by including community inputs. The CPR Policy Project collaborated with two other DFID funded projects during the planning for the Mahenye meeting. These are the Sustainable Livelihoods in Southern Africa Project and the Micro-Catchment Management Project. These projects are being implemented in Chiredzi and Chivi Districts, respectively. As part of the planning for the meeting, invitations were extended to community members, traditional leaders, elected councilors and officials of Rural District Councils (RDCs).

The workshop was attended by three Council Executive Officers, two chiefs, two councilors, seven community members; Dr. W. Adams from Cambridge University; Professor, M. W. Murphree, Mr. Alois Mandondo, and Mr. Sobona Mtisi from the University of Zimbabwe; and Dr. David Mazambani who facilitated the workshop (see Annex I).

## **2. WORKSHOP OBJECTIVE**

To learn from the community "experiences and perceptions" regarding the management of common pool resources.

## **3. WORKSHOP PROCESS**

This one-day workshop was held in a very relaxed atmosphere at the Chilo Safari Lodge overlooking the Save River, across from the Gonarezou National Park. The workshop deliberations were in Shona in order to ensure full and uninhibited participation by the community representatives.

The workshop convener, Professor M. W. Murphree of CASS at the University of Zimbabwe, opened the meeting at 0900 hours. He welcomed everyone present and thanked the delegates from Chipinge, Chiredzi and Chivi districts for coming to share their experiences in conserving and utilizing Common Pool Resources. He informed the participants that although CASS was hosting the workshop on behalf of the CPR Policy Project, preparations were done in collaboration with two other projects funded by DFID, namely, the Sustainable Livelihoods in Southern Africa and the Micro-Catchment Management Projects. He also announced that there was going to be a follow-up CPR workshop in Harare, on Friday 21 September 2001, to which donors, state agencies and NGOs had been invited. Participants representing the three districts were requested to identify four individuals from among

themselves who would represent them at the Harare workshop.

After the opening remarks, the workshop facilitator explained the workshop objective and expected outputs. He then invited each presenter for Session I to explain briefly the focus and preliminary findings of their projects. Session II comprised plenary presentations of community experiences and very lively debate of the issues raised. After the lunch break, participants were asked to write on cards issues that they felt needed further debate. A number of crosscutting issues were identified and synthesized into discussion topics for group work (Session III). Group recommendations for addressing various CPR management issues were presented and further debated during the final session (Session IV).

During the concluding session of the meeting participants from the districts selected Mrs. Faith Makaza, Mr. Caiphos Chauke, Mr. James Mundoma and Mr. Abraham Sithole to represent them at the Harare workshop.

Annex II shows the programme followed at the Mahenye meeting.

#### **4. HIGHLIGHTS OF RESEARCH PROJECTS**

Project presentations were confined to the first session. Each presenter was allowed only 15 minutes to give a very brief summary as outlined below.

##### **The CPR Policy Project – *Dr. W. Adams***

Dr. Adams introduced the project from a synoptic three-country perspective emphasizing the following points.

- ◆ This project seeks to establish a common framework for the analysis of common pool resource issues in semi-arid regions of three countries, India, Tanzania and Zimbabwe.
- ◆ Its aim is to help decision-makers and stakeholders to understand the issues and the choices involved in their policy decisions affecting common pool resource use.
- ◆ The project is funded under the DFID Natural Resources Systems Programme Semi-Arid Production System.
- ◆ The key contact persons in India, Tanzania and Zimbabwe are a:
  - Professor Marshall W. Murphree, Centre for Applied Social Sciences, UZ, Box MP 167, Harare
  - Professor Kanchan Chopra, Institute of Economic Growth, Delhi 110007, India.

- Professor Issa Shivji, Department of Law, University of Dar-es-Salaam, P. O. Box 35093, Dar-es-Salaam, Tanzania.

### **The Zimbabwe CPR Draft Country Report – Professor Murphree**

Professor Murphree briefly summarized the Executive Summary of the Zimbabwe Country report focusing on the following major conclusions from the research project.

- ◆ Devolution to localized units of governance over CPRs is necessary, on the grounds of both equity and efficiency. In the current context, this should include resettlement areas.
- ◆ Planning is needed to motivate devolution and to enhance the strength and resilience of local regimes of CPR use and management.
- ◆ Intra-communal equity in access to the value of CPRs varies according to the type of resource concerned.
- ◆ Commoditisation has the potential to enhance CPR values but carries with it the danger of marginalizing access by the poor.
- ◆ Legislative reform is required supporting devolution and integrating currently fragmented and sometimes inconsistent legislative and administrative instruments and structures.

### **The Sustainable Livelihoods in Southern Africa Project – Mr. S. Mtisi**

Mr. Sobona Mtisi informed participants that the project is a three-year research programme, which started in November 2000 and is being carried out in collaboration with partners in South Africa, Mozambique and the Institute of Development Studies at Sussex in the United Kingdom. In Zimbabwe Dr. Solomon Mombeshora of the Sociology Department, University of Zimbabwe coordinates the programme. Mr. Mtisi outlined the three themes being explored during the research as follows:

- ◆ How do poor people gain access to and control over land, water and wild resources and through what institutional mechanisms?
- ◆ How do emerging institutional arrangements in the context of decentralization affect poor people's access to land, water and wild resources?
- ◆ What institutional overlaps, complementarities and conflicts enable or limit access? What new governance arrangements are required to encourage a livelihood approach to decentralized rural development?

- ◆ How do the livelihood concerns and contexts of poor people get represented in policy processes concerning land, water and wild resources in local, national and international arenas? What are the challenges for participation in the policy process?

### **The Micro-Catchment Management Project - Mr. A. Mandondo**

The objective of the project is to develop and promote appropriate catchment management strategies in semi-arid areas in order to improve rural livelihoods. This is done through enhancing institutional arrangements and improving technical options for the management of catchments. The project is being implemented in Chivi district, which is a semi-arid region in Masvingo Province. The Institute of Environmental Studies, University of Zimbabwe, and Care International are spearheading project implementation.

The project recognizes water as being at the heart of semi-arid production systems, and hypothesizes that it can be used as an entry point to the broader management of common property and other resources. The purpose of the project is to develop and validate innovative approaches to natural resources management that benefit the poor in representative micro-catchment sites in Mutangi and Romwe communal lands.

Initial project findings are summarized below:

- The studied systems appear not to be CPR systems but mixes of state, common and private property, that is, communal lands are largely state lands in which at practical level communities have traditional freehold tenure over residential and arable plots, and usufructuary rights over resources in surrounding “common”.
- Multiple rules (state, RDC, local) drawing from multiple legitimization bases (state, local government, customary) and different enforcement structures and processes often resulting in confusion.
- Empowerment initiatives continue to be undertaken, but these are supply-led and not demand-driven.
- There are no clear user groups and resource boundaries, so do we open or close the boundaries and on what basis?
- Administrative, social and resource boundaries do not match. So do we need distinct management units, if so on what basis can they be constituted?
- Resource values appear to be insufficient to justify formalized CPR systems with higher transaction costs, so is “do nothing” the best scenario or is “degradation” unavoidable anyway.

- People appear to be claiming that traditional leadership is more “legitimate” but at the local level there are easily discernible undercurrents of disgruntlement – with charges of nepotism, cronyism, dictatorial tendencies and lack of accountability. What do we do – leave as it is or blend with democratic infusions, and why?
- Newly constituted structures also appear not to be faring well either; no report backs after look and learn and other visits; committees not being responsive enough to members’ needs; committees often turning out to be life-long rather than being constantly renewed. So who shoulders the blame – should we absolve the leaders because “leadership corrupts” or do we blame the followers because “each people gets the form of government that it best deserves?”

## **5. COMMUNITY EXPERIENCES**

### **Mahenye Ward, Chipinge District**

Mahenye was the first ward to implement the CAMPFIRE approach in the country. Key lessons from the presentation and plenary discussion were as follows.

- ◆ The ward has by-laws that have been gazetted in terms of the CAMPFIRE programme and in accordance with the Rural District Council Act.
- ◆ Community members were actively involved in discussing, adopting and enforcing the by-laws even before they were gazetted.
- ◆ The CAMPFIRE Committee works in consultation with the chief to enforce the by-laws. The committee refers to the chief any cases that it cannot resolve.
- ◆ Revenue generated from fines is shared among the RDC, the chief and the community.
- ◆ Community awareness of the importance of CAMPFIRE is reinforced through:
  - Awareness meetings such as their annual general meetings.
  - Implementing social projects that benefit the community. For example, the CAMPFIRE project funded the construction of the clinic, teachers’ houses primary school, the community-grinding mill, ZRP sub-offices, piped water and electrification of the clinic.
  - Jobs created at the Chilo and Mahenye Lodges, and Natural Resources Monitors who work for the community.
  - Offering jobs to poachers some of who are clerks or waiters at the lodges.

- Legalizing bow and arrow hunting at specific times during the year. This hunting is done as part of a strategy to manage wildlife numbers.

### **Sangwe Communal Land, Chiredzi District**

- ◆ Two villages have been selected to be “test cases” for the devolution exercise.
- ◆ There is no coordination between the RDC, traditional leaders and community in the collection and sharing of revenue from fines.
- ◆ By-laws were gazetted under Statutory Instrument 119 of May 1998. However, the by-laws are not yet effective because the setting of the “orders” has not been done.
- ◆ There are instances when management of CPRs is adversely affected when RDC employees and officials of line ministries “turn a blind eye” to the poaching of resources. In Chitsa Ward, for example, fences for grazing schemes were vandalized and nothing was done to address the situation.
- ◆ Cross border poaching by residents of Chipinge district is rife. They cross to Chiredzi to get firewood and sometimes game from Gonarezou National Park. This has resulted in serious conflicts involving fist fights and police arrests.
- ◆ Councilors, DNR and RDC officers turn a blind eye to stream bank cultivation and selling of game meat.
- ◆ Politicians (MPs) prevent civil servants from enforcing laws because they want to be popular among voters in their constituencies.
- ◆ Management of CPRs is being adversely affected by power struggles between Councilors and traditional leaders (*Development yave kudhonzeranwa pakati pe vatungamiri vekuvhoterwa ne vemadzinza, meaning development has become a tug of war between elected and traditional leaders*). This is partly a result of the post 1980 superimposition of the ‘modern/ elected’ leadership onto existing leadership structures in the communal lands.

### **Romwe Micro-Catchment Area, Chivi District**

- ◆ Unlike Mahenye, in Chivi timber is now very scarce and the search for firewood is now a real struggle for women.
- ◆ The fine for starting veld fires is a goat, which is paid to the chief.
- ◆ Chivi does not have large wildlife, and the smaller ones are hard to come by.

- ◆ Care International and the IES Project have helped to improve attitudes towards CPR management. Some of the initiatives encouraged by these organizations are:
  - Planting vertiver grass in catchment areas
  - Tree nurseries
  - Woodland management through planting exotic and indigenous trees
  - Consolidated community gardens
- ◆ One community in Sese has managed to protect their hardwood trees against wood carvers.
- ◆ Wood carvers in Chivi get timber illegally from Chiredzi and Mwenezi districts.
- ◆ Some of the large artifacts are destined for international markets where the type of timber but not necessarily the products are in demand.
- ◆ The RDC does not get anything from the wood carving industry. As a result, it has little interest in regulating the activities of wood carvers. The RDC is, however, prepared to cooperate with other councils in any effort aimed at stamping out timber poaching.

## **6. CROSS-CUTTING ISSUES**

### **Key Issues**

- CPRs, poverty, and wealth/benefit sharing.
- Devolution of management powers and responsibilities from RDCs to communities
- Politics versus management of CPRs
- CPR management and the resettlement programme
- Inter-district conflicts in CPR use
- Linkages between the state, RDCs and traditional leadership in CPR management



- Poaching of CPRs by stakeholders

These issues set the agenda for group discussion.

## **Workshop Recommendations**

### **CPRs and Poverty Reduction**

- This is an equity issue.
- User charges should be levied on commercial uses of CPRs.
- Management institutions should be created and/or strengthened. A Trust Fund should be created whose primary objective would be to strengthen CPR management institutions.

### **Devolution**

RDCs should have action plans for devolving to community institutions powers and responsibilities for collecting and distributing revenue derived from CPRs. Such plans should accommodate activities aimed at building the capacities of the communities.

### **Politics and CPR Management**

These are closely linked because elected politicians at all levels (e.g. Councilors, MPs and Government Ministers) do not want to antagonize potential voters even when the latter are involved in the mismanagement of CPRs. Such politicians should be targeted for awareness workshops. Traditional leaders should be allowed to play their role in CPR management.

### **CPRs and Resettlement**

*Observations:*

Careful planning of the use of CPRs has not preceded most resettlements. As a result:

- The pattern of use of CPRs is the same as in the communal lands;
- Residents of some communal lands adjacent to resettlement areas and the new settlers themselves, have free access to CPRs in resettlement areas;
- Traditional leaders in many resettlement areas do not have responsibilities to control management of CPRs;

- In the new resettlement areas, some of the settlers are clearing large tracts of woodland and selling wood to traders.
- Most settlers do not have access to adequate resources especially water.

*Recommendations:*

- Communities in resettlement areas should be consulted in planning for CPRs management.
- Land and other resources should be allocated on a household lease basis and there should be no sharing of grazing resources. This will be a good incentive for improved management of woodland and grazing resources in resettlement areas. The Chizvilizvi Resettlement Area is a good example where improved management of these resources was experienced when grazing areas were sub-divided and allocated to households on a leasehold basis.
- RDCs and Central Government should prioritize the issue of access to water for resettled farmers.
- District Administrators should be allocated resources to enable them to move in resettlement areas to explain the new responsibilities of traditional leaders.

**Inter-district conflicts in CPRs Use**

- Commodification (trade) in CPRs must be formalized and controlled by legalizing it.
- Periodic consultations are needed involving neighbouring RDCs and traditional leaders.
- Neighbouring RDCs, chiefs and other local leaders should consult and adopt common policing systems, fines for poaching CPRs, and mechanisms for inter-district trade in CPRs.
- There should be joint committees that will orchestrate CPRs management awareness in the districts.
- Inter-district co-operation will enhance coordinated planning involving RDCs and traditional leadership.

**Linkage between the state, RDCs and traditional leaders in the management of CPRs**

- Pieces of legislation that deal with CPRs e.g. the Forestry Act (1982), the Rural District Councils Act (1988), the Wildlife Act (1975) and the Traditional Leaders Act (2000)

should be harmonized, and the roles of different sectors and stakeholders should be clearly defined. The major advantages will be:

- Better coordination in CPR management;
- Enhancing the ability of institutions to enforce by-laws and laws;
- Reducing conflict situations between the traditional and elected leaders; and
- Ensuring quick responses from central government.

The anticipated bottlenecks are: conflict of interests and the fact that those who have power do not want to let go.

### **Poaching of CPRs by Stakeholders**

This is an unsustainable approach to the utilization of resources, and those who are bent promoting self-interests and personal gains practise it. Problems associated with poaching include over-harvesting resulting in the extinction of some species, and mistrust and conflict among stakeholders. Suggestions for dealing with poaching are:

- Enforcing by-laws, rules and regulations by all stakeholders.
- Education campaigns focusing on the need for sustainable management of all natural resources.
- Equitable distribution of benefits – ensuring that all community members (including the poachers) benefit from CPR management.
- Communities should be urged to guard CPRs in their areas jealously.

## **7. CONCLUDING REMARKS**

In his concluding remarks Professor Murphree thanked all the participants for a wonderful and fruitful workshop. He urged RDCs and communities to be very purposeful when dealing with CPR issues, especially the need to devolve management responsibilities to communities. Noting that CAMPFIRE started as an experiment, which was later widely adopted countrywide, he encouraged Chiredzi district to continue with their “test case” with regard to devolution to village level. He then thanked Chief Mahenye for gracing the meeting by coming in person to participate in the deliberations, and for the hospitality of the Mahenye community. He noted that Chilo was a real blessing for the community and they should be proud of it.

## ANNEX I

### LIST OF PARTICIPANTS

<b>Name</b>	<b>Organization/Ward/ District</b>	<b>Contact Address</b>
Mr. James Mundoma	Chipinge RDC	P. O. Box 19 Chipinge (027-5631-5)
Ms. Shylet Mhango	Mahenye Ward, Chipinge	Bag 7111, Chiredzi
Mr. Elisha Chagondah	Chivi RDC	Bag 527 Chivi
Ms. Faith Makaza	Romwe Catchment, Chivi	Bag 9109 Masvingo
Mrs. Esther Uza	Mahenye Ward, Chipinge	Bag 7111, Chiredzi
Cllr. Semende Chauke	Mahenye Ward, Chipinge	Mahenye CAMPFIRE Box 610 Chiredzi
Chief Mahenye	Mahenye, Chipinge	Box 610 Chiredzi
Mr. Solomon Sambo	Chiredzi RDC	Box 128 Chiredzi
Mrs. Rosemary Mundoma	Chipinge RDC	Box 19 Chipinge
Chief Tshovani	Sangwe, Chiredzi	Box 128 Chiredzi
Mr. Caiphaz Chauke	Mahenye Ward, Chipinge	P. O. Box 610, Chiredzi
Mr. Tinarwo Mateko	Chiredzi RDC	Box 128 Chiredzi
Mr. Edward Matsilele	Chiredzi RDC	Bag 7082 Chiredzi
Cllr. Abraham Sithole	Chiredzi RDC	Bag 7061 Chiredzi (011-613 899)
Mr. Alois Mandondo	Institute of Environmental Studies, University of Zimbabwe	Box MP. 167 Mt. Pleasant, Harare
Dr. Bill Adams	Dept. of Geography, University of Cambridge	Downing Place, Cambridge, CB2, 3EN, UK
Prof. M. W. Murphree	CASS, University of Zimbabwe	Box MP. 167 Mt. Pleasant, Harare
Mr. Sabona Mtisi	Dept. of Sociology, University of Zimbabwe	Box MP. 167 Mt. Pleasant Harare (091-326 453)
Dr. David Mazambani	Facilitator, Edit Trust	Box A1444, Avondale, Harare (091-369 154) or 263-04-494694 <a href="mailto:mazdavid@africaonline.co.zw">mazdavid@africaonline.co.zw</a>

**WORKSHOP PROGRAMME:**

**Chilo Lodge, Mahenye Ward, Chipinge District : 17 September 2001**

0700 – 0830

Breakfast

0830 – 1000

Session I: Introduction and background

**Chair – M. W. Murphree**

- Welcome and general introduction
- Introduction of participants
- The CPR Project
- The Sustainable Livelihoods Project
- The Chivi Project
- Discussion

1000 – 1030

Tea/Coffee Break

1030 – 1230

Session II: Community experiences in building the management of CPRs

*Chair – S. Mtisi*

- Mahenye
- Sangwe
- Chivi
- Discussion

1230 – 1400

Lunch Break

1400 – 1600

Session III: Issues and Problems:

*Chair A. Mandondo*

- Identification of issues in plenary
- Group discussions
- Group reports in plenary

1600 – 1630

Tea/Coffee Break

1630 – 1700

Session IV: Way Forward and Closing Remarks

*Chair – M. W. Murphree*

- Way forward
- Closing remarks

**END OF WORKSHOP**

**APPENDIX B**

**COMMON POOL RESOURCES**

**Proceedings of a Workshop Held at Mandel Training Centre**

**Marlborough, Harare**

**September 21, 2001**

**Hosted by the Centre for Applied Social Sciences**

**University of Zimbabwe**

Compiled by

**David Mazambani**

This workshop was an output from a project funded by the UK Department for International Development (DFID) for the benefit of developing countries. The views expressed are not necessarily those of DFID.

## Table of Contents

	<u>Page</u>
1. <u>Background to the Workshop</u>	108
2. <u>Workshop Objectives</u>	108
3. <u>Workshop Process</u>	109
4. <u>Project Introductions</u>	109
4.1 The CPR Policy Project	109
4.2 The Zimbabwe CPR Draft Country Report	110
4.3 The Sustainable Livelihoods in Southern Africa Project	112
4.4 The Micro-Catchment Management Project	113
4.5 Mahenye Workshop Findings	115
5. <u>Group Work</u>	
5.1 Issues that were discussed in groups	117
5.2 Group Reports	118
6. <u>Discussion of Key Issues Arising From Group Presentations</u>	123
7. <u>Concluding Remarks</u>	126
ANNEXES	
I List of Workshop Participants	127
II Workshop Programme	128

## 1. BACKGROUND TO THE WORKSHOP

This workshop is part of a one-year research project, which seeks to establish a common framework for the analysis of Common Pool Resource (CPR) issues. The project objective is to enable decision-makers and stakeholders to shape informed policy and implementation directions about CPR regimes that enhance the sustainable livelihoods of the poor. The research is funded by the British Government's Department for International Development (DFID) and conducted by a team of scholars from Cambridge University, India, Tanzania and Zimbabwe. The final product will be directed in particular to donors, relevant government agencies, NGOs and other development practitioners.

Prior to the workshop a draft CPR Zimbabwe Country Paper was prepared by Marshall Murphree and David Mazambani who reviewed literature on woodland, rangeland and wildlife CPR's. Two weeks before the workshop, copies of the draft report were distributed to workshop participants, requesting them to read the document and prepare written editorial and other comments.

The Harare workshop was preceded by a similar workshop on September 17, 2001 at Chilo Lodge in Chipinge District, where community representatives, chiefs, councillors and Chief Executive Officers from Chipinge, Chiredzi and Chivi districts met to share experiences and ideas on the management of common pool resources.

The CPR Policy Project collaborated with two other DFID funded projects during the planning and carrying out of the two workshops. These are the *Sustainable Livelihoods in Southern Africa Project* and the *Micro-Catchment Management Project* (see Sections 4.3 and 4.4).

## 2. WORKSHOP OBJECTIVES

The purpose of this one-day workshop was three-fold:

- a) To receive comments on the Draft Zimbabwe Country Paper and suggestions for improvement to make the final report one of general relevance and utility to planning agencies, donors and NGOs in Zimbabwe.
- b) To collate experiences and ideas that can be shared with other countries (India, Tanzania and the UK) that are participating in the CPR Project.
- c) To stimulate the development of a network of NGOs, government agencies and donors for further collaboration on CPR management issues in Zimbabwe.



### **3. WORKSHOP PROCESS**

The workshop started at 0930 hours with opening remarks from the convener, Professor M.W. Murphree of the Centre for Applied Social Sciences at the University of Zimbabwe. He thanked participants who included representatives of state agencies, NGOs, donor agencies and the academia for their positive response to CASS's invitation. He specifically acknowledged the presence of four delegates who had travelled from Chipinge, Chiredzi and Chivi districts. The four had participated in the earlier workshop on September 17, 2001 at Chilo Lodge in Chipinge District. Annex I shows the full list of delegates to the workshop.

Professor Murphree reminded those who had written comments on the Draft Country Report to pass them to David Mazambani during the course of the day. He extended apologies from two presenters, Dr. Solomon Mombeshora and Mr. Alois Mandondo who could not leave the University of Zimbabwe campus that morning because of student unrest there.

The rest of the workshop was divided into three sessions (see Annex II). Session I consisted of brief plenary presentations of summaries of projects being undertaken on CPRs. A presentation of the key outputs of the Mahenye Workshop and discussion of emerging issues followed this. In Session II participants went into three groups to deliberate on important issues (see Section 5.1) from the earlier presentations and discussions. After lunch the three groups reported in plenary the major ideas and conclusions from group discussions. This final session ended with some fruitful exchange of ideas on possibilities for continued collaboration on CPRs issues within Zimbabwe.

### **4. PROJECT INTRODUCTIONS**

#### **4.1 The CPR Policy Project – Dr. W. Adams**

Dr. Adams presented the following background information of the CPR Project.

Common pool resources in the semi-arid regions of Africa and India are widely seen as critical to poverty alleviation. They are also subject to multiple, often-competing claims from resources users. These range from local consumption and sale, to the interests of international stakeholders (including donors) over issues such as habitat for wildlife. Regimes for effective common pool management are faced with the challenge of resolving and reconciling the competing claims of these stakeholders. Some literature has suggested that such claims can be mutually compatible, but it is increasingly being recognized that such "win-win" scenarios may be relatively rare. Where needs conflict analyses of legitimate use (and as a corollary, exclusion) need to examine these processes: the social process of legitimisation and justification, the legal process of recognition and protection, and the political process of actual realization.

The challenge is to define resource management regimes that are able to secure the claim of the poorest over the flows of benefits that emerge from common pool resources effectively in the face of competitive pressures from other users.

This project seeks to establish a common framework for the analysis of common pool resource issues in semi-arid regions of three countries, India, Tanzania and Zimbabwe. Its aim is to help decision-makers and stakeholders to understand the issues and the choices involved in their policy decisions affecting common pool resource use. Its particular focus is on issues of exclusion and exploitation, and the potential of CPRs to provide sustained livelihood opportunities for the very poor.

The project is funded under the DFID Natural Resources Systems Programme Semi-Arid Production System (Project R7973, 'Policy Implications of CPR Knowledge in India, Zimbabwe and Tanzania').

The project is run jointly by the following people:

Dr. W. M. Adams, Department of Geography, University of Cambridge, Cambridge CB2 3EN; email<[wa12@cam.ac.uk](mailto:wa12@cam.ac.uk)>

Mr. Bhaskar Vira, Department of Geography, University of Cambridge, Cambridge CB2 3EN; email<[bv101@cam.ac.uk](mailto:bv101@cam.ac.uk)>

Dr. Dan Brockington, Department of Geography, University of Cambridge, Cambridge CB2 3EN; email<[db261@cam.ac.uk](mailto:db261@cam.ac.uk)>

Ms. Jane Dyson, Department of Geography, University of Cambridge, Cambridge CB2 3EN; email<[jpd32@cam.ac.uk](mailto:jpd32@cam.ac.uk)>

Professor Marshall W. Murphree, Centre for Applied Social Sciences, University of Zimbabwe, Box MP 167, Harare; email<[idzvova@cass.org.zw](mailto:idzvova@cass.org.zw)>

Professor Kanchan Chopra, Institute of Economic Growth, Delhi 110007, India;

email<[kc@ieg.ernet.in](mailto:kc@ieg.ernet.in)>

Professor Issa Shivji, Department of Law, University of Dar-es-Salaam, P. O. Box 35093, Dar-es-Salaam, Tanzania; email<[ishivji@ud.co.tz](mailto:ishivji@ud.co.tz)>

## 4.2 The Zimbabwe CPR Draft Country Report – Prof. M. W. Murphree

Professor Murphree started his presentation by making a distinction between Common Pool Resources and Common Property Resources. Common Pool Resources refer to resources from which exclusion in their use is difficult, and their use involves subtraction. The term Common Property Resources refers to proprietorial use or regime characteristics. He then presented a synopsis of the Zimbabwe CPR Draft Country Report, which he and David Mazambani have produced, based on a review of a broad range of research studies and government documents.

The report examines the use and value of woodland, rangeland/grazing and wildlife resources for household livelihood strategies in the communal and resettlement areas of agro-ecological Regions IV and V, which are characterized by semi-arid production systems. These regions comprise 64 percent of Zimbabwe's land surface and exhibit high degrees of poverty.

Key findings from the literature review are:

- a) CPR usage by households is very high. This is particularly true in regards to woodland products, which provide over 80% of the energy demands of households, as well as being used for construction, agricultural and consumption needs. Most use is for local consumptive needs with some evidence indicating higher dependencies in poorer households.
- b) Commercial use, in the form of sales of wood and bark finished products, appears to be on the increase. Commercial logging of valuable hardwood is in the hands of Rural District Councils (RDCs) and the Forestry Commission, with little value being returned to localities.
- c) Use of rangeland resources is ubiquitous, but values accruing to households are highly skewed, determined by household ownership of livestock.
- d) Use of "small" wildlife (such as rodents, hares, and birds) is widespread but under-researched. Commercially valuable species are marketed under the CAMPFIRE system. Where this is implemented as designed, distribution of benefits is relatively equitable at local levels. However, it is noted that in practice a large proportion of revenues (more than 40% nationally) is captured by RDCs, and it is noted that this resource is unevenly distributed and unlikely to make significant contributions to households in most contexts.
- e) The status of most of the CPRs is found to generally be deteriorating due to increasing demographic pressures, the national macro-economic climate leading to over exploitation of CPRs as "resources of last resort", and inadequate managerial regimes at local levels. Under current production regimes, the capacity of local

biophysical resources to support human population needs at minimum subsistence levels will have been exceeded in many areas in the next 10-30 years, and in some cases has already reached this stage.

- f) Policy and legislation on CPRs is characterized by “state custodianship and communal/resettlement land wardship”, with a technicist approach, bureaucratically segmented planning and implementation, and a reliance on prescription to effect conformity. The ability of local institutions to manage effectively is highly constrained by their marginalisation in planning, and lack of formalized entitlements to act as de jure local proprietors of land and natural resources, including the right to act as collective economic enterprises. Local communities find themselves in a position where they are responsible for environmental management, but without the necessary authority to do so.

The report suggests that the following key issues must be addressed by policy, which seeks to enhance the sustainable contribution of CPRs to the livelihoods of the poor.

- Devolution to localized units of governance over CPRs, on the grounds of both equity and efficiency. In the current context, this should importantly include resettlement areas.
- The planning and processes needed to motivate devolution and to enhance the strength and resilience of local regimes of CPR use and management.
- Intra-communal equity in access to the value of CPRs, which is likely to vary according to the type of resource concerned.
- The impacts of commoditisation, which has the potential to enhance CPR values but carries with it the danger of marginalizing access by the poor.
- Legislative reform supporting devolution and integrating currently fragmented, and sometimes inconsistent, legislative and administrative instruments and structures.

#### **4.3 The Sustainable Livelihoods in Southern Africa Project – Sobona Mtisi**

Mr. Sobona Mtisi presented the summary of this project. He informed participants that the project is a three-year research programme, which started in November 2000 and is being carried out in collaboration with partners in South Africa, Mozambique and the Institute of Development Studies in Sussex, United Kingdom. In Zimbabwe Dr. Solomon Mombeshora of the Sociology Department, University of Zimbabwe coordinates the programme.

Through work in southeastern Zimbabwe, this research programme is exploring the challenges of institutional, organizational and policy reform around land, water and wild resources in particular locations. The case study sites are Sangwe and Mahenye communal lands. The three themes being explored during the research are:

- How do poor people gain access to and control over land, water and wild resources and through what institutional mechanisms?
- How do emerging institutional arrangements in the context of decentralization affect poor people's access to land, water and wild resources? What institutional overlaps, complementarities and conflicts enable or limit access? What new governance arrangements are required to encourage a livelihood approach to decentralized rural development?
- How do the livelihood concerns and contexts of poor people get represented in policy processes concerning land, water and wild resources in local, national and international arenas? What are the challenges for participation in the policy process?

#### **4.4 The Micro-Catchment Management Project**

The objective of the project is to develop and promote appropriate catchment management strategies in semi-arid areas in order to improve rural livelihoods. This is done through enhancing institutional arrangements and improving technical options for the management of catchments. The project is being implemented in Chivi district, which is a semi-arid region in Masvingo Province. The Institute of Environmental Studies, University of Zimbabwe, and Care International are spearheading project implementation.

The project recognizes water as being at the heart of semi-arid production systems, and hypothesizes that it can be used as an entry point to the broader management of common property and other resources. The purpose of the project is to develop and validate innovative approaches to natural resources management that benefit the poor in representative micro-catchment sites in Mutangi and Romwe communal lands. The anticipated outputs are:

**Institutions:** Existing institutional arrangements to manage common property resources critically appraised, and innovative approaches to strengthening the capacity to manage CPRs investigated and promoted, As a target, two approaches to community-based management of CPRs are expected to be developed.

**Biophysical linkages:** Key biophysical linkages amongst components of the micro-catchments identified, quantified, and made accessible to CPR

management, and options for more efficient and extensive use of water resources identified and promoted in these micro-catchments.

**Livelihoods components:** Robust screening of options for improving livelihoods in target micro-catchments together with the identification and promotion of options for markedly improving livelihoods in the target micro-catchments.

Initial project findings are summarized below:

- Strictly speaking, the studied systems appear not to be CPR systems but mixes of state, common and private property, that is, communal lands are largely state lands in which at practical levels communities have traditional tenure over residential and arable plots, and usufructuary rights over resources in surrounding “common”.
- Multiple rules (state, RDC, local) drawing from multiple legitimisation bases (state, local government, customary) and different enforcement structures and processes pertain, often resulting in confusion.
- Empowerment initiatives continue to be undertaken, but these are supply-led and not demand-driven.
- There are no clear user groups and resource boundaries, so do we open or close the boundaries and on what basis?
- Administrative, social and resource boundaries do not match. So do we need distinct management units, if so on what basis can they be constituted?
- Resource values appear to be insufficient to justify formalized CPR systems with higher transaction costs, so is “do nothing” the best scenario or is “degradation” unavoidable anyway.
- People appear to be claiming that traditional leadership is more “legitimate” but at the local level there are easily discernible undercurrents of disgruntlement – with charges of nepotism, cronyism, dictatorial tendencies and lack of accountability. What do we do – leave as it is or blend with democratic infusions, and why?
- Newly constituted structures also appear not to be faring well either; no report backs after look and learn and other visits; committees not being responsive enough to members’ needs; committees often turning out to be life-long rather than being constantly renewed. So who shoulders the blame – should we absolve the leaders because “leadership corrupts” or do we blame the followers because “each people

gets the form of government that it best deserves?”

## **4.5 Mahenye Workshop Findings – Abraham Sithole**

### **4.5.1 Issues That Should Be Addressed**

- ❑ CPRs, poverty, and wealth/benefit sharing;
- ❑ Devolution of management powers and responsibilities from RDCs to communities;
- ❑ Politics versus management of CPRs;
- ❑ CPRs and the resettlement programme;
- ❑ Inter-district conflicts in CPR use;
- ❑ Linkages between the state, RDCs and traditional leadership in CPR management; and
- ❑ Poaching of CPRs by stakeholders.

These issues set the agenda for group discussion.

### **4.5.2 Recommendations for Dealing with These Issues**

#### **CPRs and Poverty Reduction:**

- This is an equity issue.
- User charges should be levied on commercial uses of CPRs.
- Management institutions should be created and/or strengthened. A Trust Fund should be created whose primary objective would be to strengthen CPR management institutions.

#### **Devolution**

RDCs should have action plans for devolving to community institutions powers and responsibilities for collecting and distributing revenue derived from CPRs. Such plans should accommodate activities aimed at building the capacities of the communities.

#### **Politics and CPR Management**

These are closely linked because elected politicians at all levels (e.g. Councillors, MPs and Government Ministers) do not want to antagonize potential voters even when the latter are

involved in the mismanagement of CPRs. Such politicians should be targeted for awareness workshops. Traditional leaders should be allowed to play their role in CPR management.

### **CPRs and Resettlement**

Observations:

Careful planning of the use of CPRs has not preceded most resettlements. As a result:

- The pattern of use of CPRs is the same as in the communal lands.
- Residents of some communal lands adjacent to resettlement areas and the new settlers themselves, have free access to CPRs in resettlement areas.
- Traditional leaders in many resettlement areas do not have responsibilities to control management of CPRs.
- In the new resettlement areas, some of the settlers are clearing large tracts of woodland and selling wood to traders.
- Most settlers do not have access to adequate resources especially water.

What needs to be done?

- Communities in resettlement areas should be consulted in planning for CPRs management.
- Land and other resources should be allocated on a household lease basis and there should be no sharing of grazing resources. This will be a good incentive for improved management of woodland and grazing resources in resettlement areas. The Chizvilizvi Resettlement Area is a good example where improved management of these resources was experienced when grazing areas were sub-divided and allocated to households on a leasehold basis.
- RDCs and Central Government should prioritise the issue of access to water for resettled farmers.
- District Administrators should be allocated resources to enable them to move in resettlement areas to explain the new responsibilities of traditional leaders.

### **Inter-district conflicts in CPRs Use**

- Commoditisation (trade) in CPRs must be formalized and controlled by legalizing it.
- Periodic consultations are needed involving neighbouring RDCs and traditional leaders.
- Neighbouring RDCs, chiefs and other local leaders should consult and adopt common policing systems, fines for poaching CPRs, and mechanisms for inter-district trade in CPRs.
- There should be joint committees that will orchestrate CPR management awareness.



Inter-district co-operation will enhance coordinated planning involving RDCs and traditional leadership.

### **Linkage between the state, RDCs and traditional leaders in CPR management**

All pieces of legislation that deal with CPRs e.g. the Forestry Act, the Rural District Councils Act and the Traditional Leaders Act should be harmonized, and the roles of different sectors and stakeholders should be clearly defined. The major advantages will be:

- Better coordination in CPR management;
- Enhancing the ability of institutions to enforce by-laws and laws;
- Reducing conflict situations between the traditional and elected leaders; and
- Ensuring quick responses from central government.

The anticipated bottlenecks are conflicts of interests and the fact that those who have power do not want to let go.

### **Poaching of CPRs by Stakeholders**

This is an unsustainable approach to the utilization of resources, and those who are bent on promoting self-interests and personal gains practise it. Problems associated with poaching include over-harvesting resulting in the extinction of some species, and mistrust and conflict among stakeholders. Suggestions for dealing with poaching are:

Enforcing by-laws, rules and regulations by all stakeholders.

- Education campaigns focusing on the need for sustainable management of all natural resources.
- Equitable distribution of benefits – ensuring that all community members (including the poachers) benefit from CPR management.
- Communities should be urged to guard CPRs in their areas jealously.

## **5. GROUP WORK**

### **5.1 Issues that were Discussed in Groups**

Group 1: Issues that relate to local institutional capacity and incentive mechanisms for the sustainable management of CPRs.

- Local institutional capacity in CPR management
- Inter-district and inter-communal land conflicts in the management of CPRs

- Devolution in the management of CPRs and benefits that accrue from them

Group 2: Issues that relate to equity, ownership, benefit sharing at the community level.

Equity in access to CPRs

- What is “ownership”? – this needs further disaggregation
- Resource sharing at the community level and how this should be managed

Group 3: Different forms of utilization of CPRs

- Non—commoditized CPRs such as water and grazing land
- Non-consumptive uses and values of CPRs
- Markets for and commoditisation of CPRs

## 5.2 Group Reports

### 5.2.1 Group 1: Local Institutional Capacity and Incentive Mechanisms in CPR Management

#### a) Institutional capacity

The group examined local governance structures at district and sub-district levels. It identified two vertical structures, namely, the elected leadership structure comprising elected individuals and committees, and the traditional leadership structure comprising chiefs, headmen and sabhukus. Under the elected leadership structure, the Rural District Council is the coordinating point for line ministries of central government. Below the RDC and of importance for CPR management are the Natural Resources Conservation Committee (NRCC), special sub-committees of the NRCC, the Ward Development Committees (WADCO) and Village Development Committees (VIDCO). The functions of these committees are clearly spelt out in the Rural District Council Act (1988). The Traditional Leaders Act (2000) spells out the responsibilities and functions of traditional leaders who now preside over the village assemblies that have replaced VIDCOs .

Observations:

- At the village level, prior to 2000, there were serious overlaps resulting in conflicts in the functions performed by village heads (sabhukus) and VIDCO chairpersons. These overlaps have been addressed by the Traditional Leaders Act, which makes the traditional village head the

chairperson of the village committee.

- Cases of ward boundary disputes are common, especially in areas where there are two adjacent communal lands under different traditional leaders.
- There are also overlaps of functions between elected councilors and headmen/sabhukus.
- Sometimes councillors are not willing to enforce CPR related regulations for fear of losing popularity within their constituencies. Instead traditional leaders tend to be more effective. For example, it was noted that the CAMPFIRE programme is more successful where traditional leaders have played an active role.

Recommendations:

- Councillors require capacity building and greater awareness of the relevance of their functions in CPR management.
- RDCs must take cognisance of the importance of their mandate as the local planning authorities. They constitute the lowest legally accountable units in CPR management. They should, therefore, ensure that benefits from CPRs are distributed to communities equitably.

## **b) Devolution**

Observations:

- Central government and RDCs are clearly not keen to devolve CPR management authority and responsibilities to lower sub-district levels. They do not want to give away authority as well as the benefits that accrue to them under the status quo.
- Ward and village level institutions do not have the necessary authority because the Rural District Councils Act (1988) and the Wildlife Act (1975) make the RDCs the lowest legally accountable planning units.

Recommendations:

- Legislation, particularly the Rural District Councils Act (1988) and Wildlife Act (1975) should be amended so that authority to manage wildlife and other CPRs is devolved to sub-district governance structures, that is, the

ward or the “producer communities” depending on the CPR in question. This should go hand in hand with institutional capacity building below the RDC.

- Current practices within the CAMPFIRE programme where “community trusts” are being formed and trained to manage their own affairs should be encouraged.
- The RDCs should still retain their coordination responsibilities at district level after their authority has been devolved.

### **c) Inter-district and inter-communal land conflicts**

Recommendations:

- The micro-catchment area approach (see Section 4.4) should be adopted in managing CPRs.
- Councillors and traditional leaders should be involved in learning processes regarding CPR management.
- CPR ownership should be conferred to recognized communities. This will enhance effective policing and CPR management.

### **5.2.2 Group 2: Ownership, Equity and Benefit Sharing in CPR Management**

#### **a)What is ownership?**

Legal definition:

Ownership means legal title to a resource. Levels of ownership include community, state and private. Private ownership can be further categorized to individual and corporate. There are interconnections between all these levels of ownership. It should be noted that ownership is sometimes resource and gender specific.

Community definition:

Ownership derives from who you are, that is, it depends on your gender, the household or family where you belong, and your position in the community.

## **b) How should resource sharing be managed at the community level?**

The objective of sharing should be to achieve equity in the distribution of resources or benefits that accrue from them. Forms of sharing depend on the resources and the levels of the beneficiaries (households, community and traditional leaders).

**Land** – Both the arable and grazing lands have to be considered. Some uses are time specific, for example, use of CPRs on arable land may be shared during the dry season, but not in summer.

**Wildlife** - The CAMPFIRE approach represents sharing between and among different stakeholders, namely, the households, the community, the RDC and the private sector. Access to small wildlife is shared outside the CAMPFIRE model of CPR utilization.

**Trees** - These produce a range of benefits that can be shared e.g. carbon, timber, fuelwood, fruits, medicines, and shade.

**Water** - Consideration should be given to the needs for domestic and commercial uses.

## **c) How can we ensure equity of access to Common Pool Resources**

- Appropriate institutional, legal and governance issues must be addressed.
- Incentive mechanisms must be designed.
- Stakeholder/community empowerment.
- Developing and implementing a variety of resource-sharing strategies e.g. leasing and co-management.

### 5.2.3 Group 3: Different forms of utilizing CPRs

#### **a) Framework of analysis of non-commoditised CPRs**

- For each CPR, identify its selling points, that is, how much should be sold, to who and how?
- What is the non-commercial demand for the CPR?
- Is there a surplus?

- What system(s) can be used to access the CPR (e.g. permits or licenses)?
- Who are the stakeholders? Are they individuals or groups, and what incentive system is needed for CPR management?
- How can institutions or groups involved in the management of the CPR be formalized?
- Is the utilization of the CPR demand driven or is it dependent on perceptions of its scarcity?
- Are there differences in access to the CPR? If so, what are the equity issues? What index of equity can be used?
- Can rights be traded? E.g. grazing rights.
- What are the different ways of taxing non-commoditised CPRs?

The group noted that placing values to non-tradable CPRs is very complicated. It also noted that boundaries between commoditised and non-commoditised CPRs are often not clear.

## **b) Markets**

Markets are inevitable in dealing with CPRs, given the growing importance of commoditisation of CPRs. Markets raise issues of sustainability as well as equity. There, is therefore, need for mechanisms for governing entrepreneurship in the commoditisation of CPRs.

Pertinent issues that must be considered are:

- Types of markets (local, regional, national and international).
- Access of CPRs to markets.
- Need for partnerships with the private sector.
- Impact of marketing CPRs on the local community. In this regard, the community must be differentiated because of the obvious gender bias in access to CPRs.
- Entrepreneurship should not be promoted to the detriment or exclusion of others. There is need to recognize the “ethos” of fairness and social justice.

- Commoditisation of CPRs depends on the management regime for the CPRs. It also depends on the entrepreneurship, that is, the individual entrepreneurship, collective entrepreneurship, or mixture of collective and individual entrepreneurship.

### **c) Non-Consumptive Use and Value of CPRs**

The gamut of non-consumptive uses of CPRs includes the following.

- Aesthetic and religious uses;
- Cultural (traditional) importance;
- Importance of and for local knowledge systems;
- Inter- and intra-community differentiation in values and use; and
- Existence value of the CPRs.

Note: Non-consumptive uses of CPRs are dynamic and can sometimes yield conservation benefits. There may be conflictual perceptions of CPRs, for example between different gender groups and between urban and rural scenarios.

## **6. DISCUSSION OF KEY ISSUES ARISING FROM GROUP PRESENTATIONS**

Plenary presentations by the three groups raised a number of important issues, which are presented below.

### **a) CPRs and household welfare**

Poor households and individuals within rural communities are the ones who are dependent on common pool resources. The dilemma, however, is that these households and individuals are the least capable in terms of gaining access to CPRs. The challenge for development practitioners and other interested stakeholders, therefore, is to identify appropriate ways and means of increasing the capability of the most vulnerable social groups to gain access to CPRs and derive more benefits from them.

### **b) Devolution**

Devolution of authority and responsibility to manage CPRs from RDCs to sub-district levels is a complex matter, which requires careful consideration. Among the strong arguments in favour of devolution is that it enhances opportunities for addressing

equity issues. Also, it ensures that there is a positive correlation between effort and benefits in CPR management and when properly implemented, it will cause producer communities to be empowered. A major concern discussed was that devolution to wards below the RDC level could create too many units for line ministries to deal with effectively, hence the reluctance by both RDCs and central government to devolve below the RDC level. In addition, some RDCs that are implementing the CAMPFIRE programme argue that the RDC is in a better position to ensure that CPR benefits are distributed equitably within the district than if the responsibility to management CPR (CAMPFIRE) funds is devolved to the wards.

Professor Murphree drew the attention of the meeting to some facts and possibilities. First is the fact that thousands of farmers were given appropriate authority to manage wildlife when the Wildlife Act (1975) was passed. Therefore, there should be no reason why the same authority cannot be extended to wards. Secondly, under the former Rural Councils, what were then Intensive Conservation Areas had the responsibility to coordinate and arbitrate conflicting practices by farmers in a given geographic area. Based on these experiences, there are lessons/possibilities for implementing devolution. First, a number of wards with appropriate authority could come together and form a conservancy or a body that is accountable to them, and to which they delegate the responsibility (up-scaling) to deal with central government. There is also the possibility that RDCs would continue to provide services to the wards and levy taxes for services provided.

### **c) Traditional leaders and their role in CPR management**

Traditional leaders play a very critical role in the management of CPRs. This can be explained by the legitimacy of their leadership, hence, they enjoy a lot of respect in their constituencies. The traditional leadership in Mahenye Ward, for example, was reported to have played a pivotal role in the success of the ward's CAMPFIRE programme. The important role of traditional leaders is also evident in some resettlement areas where chiefs were allowed to exercise their influence over the management of common pool resources. Chiefs delegate authority to headmen and sabhukus, as a result their authority is felt even in those areas where they are not based physically.

It was noted, however, that the effectiveness of traditional leaders varies between localities. Not all traditional leaders are "up to scratch", therefore, they should not be regarded as the panacea for CPR management.

### **d) Lessons from CAMPFIRE**

- CAMPFIRE has enhanced a strong sense of community ownership of CPRs. It has shown that when ownership is strengthened, resources will be managed sustainably.



- Resource sharing can be achieved to the benefit of many stakeholders. In many situations where CAMPFIRE is implemented, beneficiaries from the utilization of wildlife revenue are communities, the RDCs, and the private sector.
- There is need for mutual support among stakeholders to ensure success in the management of common pool resources.
- CPRs can constitute an engine for rural development. The community in Mahenye ward, for example, has been able to build a clinic, a secondary school, teachers' houses and a grinding mill. The community also enjoys other benefits such as employment for some of the young people, electricity supply, piped water supply at the clinic and access to telephone communication.
- Training and enhanced capacity for communities to manage common pool resources through the enforcement of by-laws, the establishment of committees and employing natural resource monitors.
- Equitable sharing of benefits and employment can be used as a strategy for discouraging potential and real poachers.

It was noted that CAMPFIRE should do more to address poverty through the utilization of smaller wildlife and non-wildlife resources. It was also noted that communities should be prepared to make investment in CPR management. In Mahenye ward, the community had to forego some of their traditional and cultural rights in order to enjoy benefits related to modern development.

#### **e) Inherent weaknesses in Resettlement Areas with respect to CPR Management**

- Under the pre-2000 resettlement models land cannot be inherited when the original settler dies. Instead, the land reverts back to the state. This condition discourages long-term planning and investment on land resources.
- Poaching and encroachment from communal lands are rife as there are no strong institutional controls. Up to 2000, traditional leaders did not have any authority over natural resources management in the settlement areas.
- In the new "fast track" resettlement areas, there seems to be a free-for-all "open access" attitude with regard to resources such as trees.

#### **f) Markets and marketing of CPRs**

Commoditisation is inevitable. The value of CPRs is enhanced when there is a demand for

the resources. In this regard consideration should be given to the following.

- Communities and other stakeholders need to have negotiating skills.
- Collective efforts or joint ventures should always be explored.
- It is very important to be able to identify the appropriate market for the resources.

## **7. CONCLUDING REMARKS**

In his closing remarks, Professor Murphree promised the participants that a report reflecting the workshop deliberations will be produced and copies will be distributed to participants within a few weeks time. He noted that the workshop had provided lively debate on CPR issues as currently experienced in Zimbabwe. Issues and ideas discussed in the meeting will help to design a framework for continued collaboration on CPR management issues. He also emphasized the need to have a host institution or agency that will ensure that the debate on CPRs is sustained. After some deliberations, the meeting agreed that the Association of Rural District Councils (ARDC) is an appropriate candidate for this role. Its membership and countrywide coverage makes the ARDC the best forum for nurturing collaboration on CPR issues.

Professor Murphree then invited Dr. Bill Adams to also make some closing remarks. Dr. Adams clarified that Cambridge University and its partners in India, Tanzania and Zimbabwe were, through the project, reviewing and synthesizing knowledge on CPRs in order to come up with ideas on how CPRs can contribute towards poverty reduction. The donor agency (DFID) is interested in knowing whether and how CPRs are in fact central to development in semi-arid areas; and how knowledge and experiences on CPRs can be shared within and among the three countries.

The meeting ended at 1600 hours.

\*\*\*\*\*

**LIST OF PARTICIPANTS**

<b>Individuals</b>	<b>Institutions</b>	<b>Position</b>	<b>Contact Address</b>
	<b>State Agencies</b>		
Mrs. Mutsa Chasi	Department of Natural Resources	Director	P. Bag 385, Causeway, Harare
Mrs. Jeanette Manjengwa	Ministry of Environment and Tourism	PAO	14 <sup>TH</sup> Floor, Karigamombe Centre, Harare - 777027
Mr. Maxwell Mukwekwerere	Forestry Commission	Resource Economist	Box HG 595, Highlands, Harare 496878; 091359710
Mr. Godfrey Nehanda	Agritex	Chief Irrigation Specialist	Box CY 639, Causeway, Harare
Mr. Nelson Marongwe	ZERO	Research Fellow	158 Fife Avenue, Box 5338, Harare 091-347 115
Dr. Russell Taylor	WWF- SARPO	Programme Director	Box. CY 409, Causeway , Harare
Mr. Stanley Vombo	CASS, University of Zimbabwe	Teaching Assistant	Box MP 167, Mt. Pleasant, Harare
Mr. Andrew Francis	Development Associates	Programme Manager	Mukuvisi Woodlands, Box 661, Harare
Ms. Nyarai Maturure	GTZ – Social Forestry	Project Coordinator	No. 1 Orange Groove Drive, Highlands, Harare
Mr. Caesar Chidawanyika	World Bank	Senior Programme Officer	Box 2960, Harare. 729611
Mr. James Mundoma	Chipinge RDC	Chief Executive Officer	P. O. Box 19 Chipinge
Mr. Abraham Sithole	Chiredzi RDC	Councilor	Box 128 Chiredzi, 011-613 899
Mr. Caiphas Chauke	CAMPFIRE Committee, Mahenye Ward, Chipinge	Chairman	Box 610 Chiredzi
Mrs. Faith Makaza	Romwe Micro-Catchment Project, Chivi	Community Mobilizer	Bag 9109, Masvingo
Ms. Lucy Welford	Cambridge University	Student	University of Cambridge, CB2 3EN UK.
Prof. M. W. Murphree	CASS, University of Zimbabwe	Professor Emeritus	Box MP 167, Mt. Pleasant, Harare
Mr. Sobona Mtisi	Centre for Population Studies University of Zimbabwe	Researcher	Box MP 167, Mt. Pleasant, Harare
Dr. Bill Adams	Dept. of Geography, Cambridge University	Lecturer	University of Cambridge, CB2 3EN UK.
Mr. Isaac Malasha	CASS, University of Zimbabwe	Research Fellow	Box MP 167, Mt. Pleasant, Harare
Dr. David Mazambani	Edit Trust	Trustee	Box A 1444, Avondale, Harare

## WORKSHOP PROGRAMME

**POLICY IMPLICATIONS OF (CPR) KNOWLEDGE IN INDIA, TANZANIA AND ZIMBABWE**

**Mandel Training Centre  
Corner Adylinn & Melton Road  
Marlborough  
Harare  
21 September 2001**

---

**PROGRAMME**

- 0900 – 1030    **Session I: Project Introduction**  
*Chair – Prof. Murphree*
- ◆ Welcome and Introduction of Participants (10 min)
  - ◆ Project Introductions (35 min)
    - a) The CPR Policy Project
    - b) The Zimbabwe CPR Draft Country Report
    - c) The Livelihoods Project
    - d) The Micro-Catchment Management Project
  - ◆ Mahenye Workshop Findings (25 min)
  - ◆ Questions and Discussion (20mins)
- 1030 – 1100    **Tea/Coffee Break**
- 1100 – 1230    **Session II: Issues and Group Work**
- ◆ Identification of issues for Group discussions (30 min)
  - ◆ Group work (60 min)
- 1230 – 1400    **LUNCH**
- 1400 - 1545    **Session III: Group Reports**  
*Sobona Mtisi*
- Group Reports
  - Discussion
  -
- 1545 - 1600    **Closing Remarks** – *Prof. Murphree*
- 1600            **Tea**

\*\*\*\*\*