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**ISSUES PAPER**

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Property Resources  
Management: A Case  
Study of the Nyaminyami  
District Council of  
Zimbabwe's Wildlife  
Management Programme**

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DECENTRALISING COMMON PROPERTY RESOURCES MANAGEMENT: A CASE STUDY  
OF THE NYAMINYANI DISTRICT COUNCIL OF ZIMBABWE'S WILDLIFE  
MANAGEMENT PROGRAMME

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## GLOSSARY

CAMPFIRE	Communal Areas Management Programme for Indigenous Resources
CASS	Centre for Applied Social Sciences
CL	Communal Land
CPR	Common Property Resource
DC	District Council
DDC	District Development Council
DNPWM	Department of National Parks and Wildlife Management
MOFEPD	Ministry of Finance, Economic Planning and Development
MOLGRUD	Ministry of Local Government & Rural and Urban Development
NDC	Nyaminyami District Council
NGO	Non-government organisation
NWMT	Nyaminyami Wildlife Management Trust
VIDCO	Village Development Committee
WADCO	Ward Development Committee
WINDFALL	Wildlife Industries New Development For All

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**Introduction**

The decentralisation of the wildlife resources of Zimbabwe's Communal Lands (CLs) has been occurring within the policy framework of the Communal Areas Management Programme for Indigenous Resources (CAMPFIRE). This is a programme designed by the government's Department of National Parks and Wildlife Management (DNPWM) to devolve the management and decision making regarding common property resources (CPRs) to those local communities who incur the costs of management (Martin 1986). Given its origins in the wildlife department, CAMPFIRE necessarily focuses primarily on the management of wildlife resources of the communal areas. Since its inception, however, the CAMPFIRE concept has increasingly been applied to the management of other CPRs, particularly grazing and forest resources and to a lesser extent fisheries, which are for a variety of reasons in a state of ecological decline.

The implementation of CAMPFIRE has taken different forms in different CLs, the major difference between the various CAMPFIRE initiatives being the degree of devolution to the district or sub-district levels. This paper examines the implementation and problems of CAMPFIRE in one District Council (DC) and concludes with a discussion of the various policy implications of this particular model of decentralised CPR management.

**The Decentralisation of Local Government**

A 1984 Prime Minister's directive to decentralise the local government structure resulted in the creation of sub-district units of local government from the village to district council level explicitly designed to facilitate local level participation in decision making. It was envisaged that this new system of decentralised local government would stimulate and facilitate bottom-up as opposed to top-down initiatives in development planning and administration. Studies of the resultant system have demonstrated that while in some cases the new sub-district units of local government have led to increased local participation in decision making, this is not always the case (Dewalk and Wekwek, 1990).

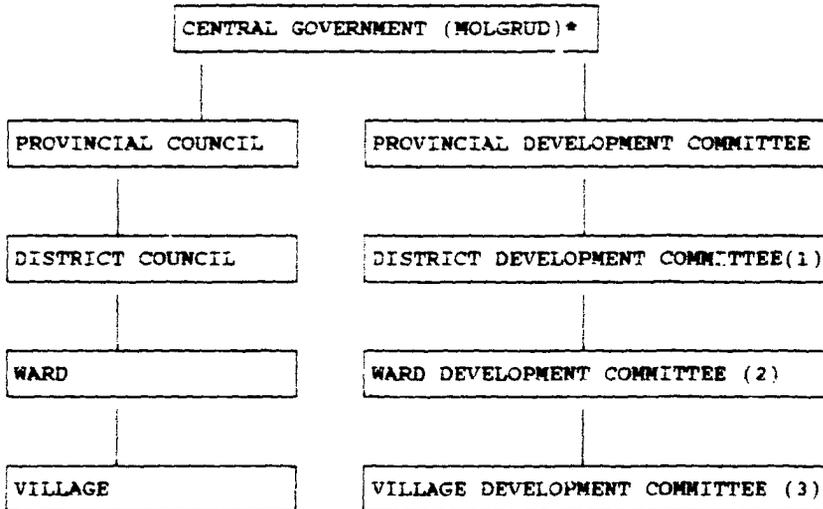
It has also been suggested that in some instances the new structure has actually strengthened top-down planning by creating convenient fora for development planners and administrators to mobilize local participation in development programmes/projects envisaged and implemented in a top-down fashion. Nhira (1990) argues that this

is a desirable development because it leads to a convergence of top-down and bottom-up initiatives, rather than to a contradiction between the two approaches.

The structures of local government for the CLs are as follows resulting from the decentralisation programme are presented in Figure 1 below:

FIGURE 1

**DECENTRALISED LOCAL GOVERNMENT STRUCTURE OF ZIMBABWE**



\* Ministry of Local Government, Rural and Urban Development.

1. A District Council consists of Councillors democratically elected from all the wards in the district.

2. A Ward is a unit area of population approximately 6,000 people, represented on development matters by a Ward Development Committee (WADCO) elected from among the adult population of the ward.

3. A village is a unit of 100 households represented on development matters by a Village Development Committee (VIDCO) elected from among the adult residents of the village. 6 villages constitute a ward.

The actual functioning of these decentralised units of local government has been hampered by the fact that central government planning remains sectoral, with the central planning authority, the

Ministry of Finance, Economic Planning and Development (MCFEPD), still centralised and unrepresented at the District level. Most government departments do not have operations at the district level and are thus not represented in the District Development Committee (DDC). Consequently, and given that development is financed sectorally, the DDC has remained largely ineffective as a planning committee.

Thus although development plans have been produced at all levels of the new hierarchy, these have not been implemented because of financing and sectoral coordination problems. Hence development planning has remained centralised and any potential that the decentralised local government institutions might have had has been stymied.

Decentralised development planning has also been rendered ineffective by the fact that the generation of revenue, particularly at the district and sub-district levels, is difficult. Most District Councils depend on grants from central government to finance their development activities. VIDCOs, WADCOS and DDCs do not have budgets. Most DCs have attempted to supplement their grants by levying a tax, referred to as a 'Development Levy', on their constituencies. This has not been successful in most instances because of collection problems and also because of the low incomes of most communal lands populations. Moreover, in some districts, incomes are so low that this tax was never imposed.

Decentralised local government institutions have, however, been very valuable for Non-Government Organizations (NGOs). Typically, NGOs have implemented their community development programmes at the district and sub-district levels and thus have tended to use these institutions as the principal fora for organization and implementation. Hence much of the 'empowerment' of local level institutions has come from this sector.

### A Brief Outline of CAMPFIRE

The CAMPFIRE programme, under which the Nyaminyami DC was granted "appropriate authority" to manage the wildlife resources of the district, was designed within the context of the decentralisation policy. Appropriate authority refers to the status conferred upon a local authority (in this case a DC) under the Parks and Wildlife Management Act amendment of 1982 to manage the CPRs of that area subject to certain rules and regulations by the DNPWM. DCs with appropriate authority are empowered to manage the wildlife resources in their areas for the benefit of their residents.

The CAMPFIRE programme constitutes the DNPWM's decentralisation of wildlife management from the centre. As Pangeti (1990:1) points out: "The department's [DNPWM] policy of advocating the conferment of appropriate authority status over wildlife under certain conditions is consistent with Government's policy of decentralised self management and self sufficiency...".

The CAMPFIRE programme inter alia seeks to:

".. obtain the voluntary participation of communities in a flexible programme which incorporates long term solutions to resource problems:

- introduce a new system of group ownership and territorial rights to natural resources for the communities resident in the target areas:

- provide the appropriate institutions under which resources can be legitimately managed and exploited by the resident communities for their own direct benefit

- provide technical and financial assistance to communities which join the programme to enable them to realize these objectives." (Martin 1986).

In setting-up these objectives for the programme, the DNPWM was guided by the recognition that wildlife management is a viable land use form particularly in natural regions 4 and 5, constituting semi-arid land, usually with very poor soils and rugged terrain, that is least suitable for agricultural activity.

However, because of the colonial policy of land expropriation, a significant percentage of Zimbabwe's communal lands are also situated in these regions. Wildlife is abundant in some of these marginal communal areas, particularly in the Zambezi Valley. Most of the Zambezi valley was, until recently, tsetse fly infested, thus precluding pastoralism. Because agriculture is severely restricted by low rainfall and poor soils, and animal husbandry is precluded by tsetse fly, wildlife has come to be seen as the most economically viable land use system in these fragile ecosystems.

Moreover, the Parks and Wildlife Act of 1975, targeted at the 'owners and occupiers of alienated land', gave such owners and occupiers the right to utilise the wildlife resources on their land subject to residual control by the DNPWM. Alienated land refers to large scale and small scale commercial farmland held under freehold and leasehold tenure and excludes all communal land. Since CLs are excluded by this Act from the right to utilise their wildlife resources, wildlife in such areas has tended to constitute a great cost to CL residents in the form of crop and livestock destruction and the killing and injury of people, while not producing any economic benefit for the people incurring such costs. Hence wildlife did not become an economically viable land use in CLs.

An amendment to the Act in 1982 made provision for the Minister of Natural Resources to designate DCs as the Appropriate Authority for wildlife for lands under their jurisdiction and thus granting them the "rights and responsibilities accorded to the owners or occupiers of alienated lands..." (Pangeti 1990:3)

Pangeti (1990) also outlines the criteria for the conferment of appropriate authority on District Councils. Thus the DC must

present "a management policy and plan to indicate that councils have considered the relevant range of issues and reached a consensus on major goals and policies". The return of benefits to producer communities is considered to be the cornerstone of the programme. "The key mechanism for the effective custodianship of wildlife resources is to give it focused value for those who are its *de facto* managers. These managers are those communities, typically wards, who have the resources and pay for its existence." (Pangeti 1990:5)

However, while the conferment of appropriate authority grants CI populations "rights and responsibilities accorded to the owners and occupiers of alienated lands", usufruct rights are not recognised. This is a serious shortcoming of the CAMPFIRE programme that will be considered in a later section.

Because of the uneven distribution of wildlife, DNPWM also requires that benefits are returned to producer communities defined on a ward basis to ensure that levels of benefit reflect production levels. DNPWM also recommends that DCs levy a service charge that should not exceed 10-15% of revenue. DCs however retain control over the use and distribution of wildlife revenues by the wards.

" The use and distribution of wildlife revenues in producer communities is legally a determination to be made by district councils, but it is expected that councils will delegate increasing responsibility to producer communities for this function" (DNPWM, 1991:5).

In this connection DNPWM prescribes a "formula for the distribution of revenues and compensation for livestock and crop damage". According to this formula:

- 15% of gross revenue will be paid to the District Council as a levy.
- a maximum of 35% will be retained for resource management (i.e. payment of Game Guards' salaries, provision of game water supplies, setting-up of tourism infrastructure etc.) by the DC or its designated wildlife management agency.
- a minimum of 50% distributed to the wards at the rate of the ward's contribution to the wildlife revenue. Payment of crop and livestock compensation will be subtracted from this dividend.

Thus while CAMPFIRE obviously attempts to devolve control over wildlife revenues to local authorities, several potential problems are evident. Firstly, CAMPFIRE assumes that producer communities are necessarily wards. However, the decentralisation process did not create the wards on the basis of access to common resources or of some existing resource use practices between communities. Rather, wards were arbitrarily set up mainly on a demographic basis. A ward simply constitutes six villages of approximately 100 households each. That it does not necessarily represent a 'community' of resource users is evidenced by the amount of

boundary renegotiation that characterised the implementation of decentralisation (Murombedzi, 1986).

CAMPFIRE does not, however, attempt to define a 'community'. In such a situation, it is likely to be difficult for the ward to evolve coherent user rights and obligations regarding access to and utilisation of wildlife revenues. Where such rights are evolved and defined by 'outsiders', a ward is not likely to have sufficient legitimacy to enforce them.

Moreover, while CAMPFIRE recognises inter-ward differences of endowment with wildlife resources, it does not recognise intra-ward differences, which may be crucial in determining benefits.

Secondly, while the programme clearly sets out the rights, duties and obligations of the DC to the resources, it does not define the rights of 'producer communities' to these resources *viz* the DC. By failing to define the process by which the DC should devolve management to producer communities, the programme runs the risk of prescribing 'centralization' at the district level with little scope for local participation in management.

Thirdly, CAMPFIRE explicitly devolves control over revenues generated from wildlife utilisation to the DC level. It does not, however, define the rights of local communities to the wildlife resource itself. It is my contention that such rights and obligations are crucial to the success of any devolved resource management programme.

These problems are discussed in a later section within the context of the implementation of CAMPFIRE in the study area, the Nyaminyami District.

### The Nyaminyami District

#### **Background**

The Nyaminyami District covers 367,000 ha and consists of three CLs: Omay, Kanyati and Gatshe Gatshe, situated in the north western Zambezi Valley, south of Kariba town. Matusadonha National Park, which is state land and therefore not under the jurisdiction of the DC, stretches for 137,000 ha. in the centre of the district. The population of the district is estimated at over 38,000 people in 1990 (*vide* e.g. Reynolds, 1991).

The majority of the Omay population are Tonga, although the vaShangwe constitute a significant proportion. Gatshe Gatshe is also predominantly Tonga while Kanyati has been settled mainly by Karanga immigrants from Masvingo province.

**TABLE 1**

**NYAMINYAMI DISTRICT: LAND CLASSIFICATION AND POPULATION \***

<b>CLASSIFICATION</b>	<b>AREA (HECTARES)</b>	<b>POPULATION</b>
Omay Communal Land	287,000	24,267
Gatshe Gatshe Communal Land	18,000	895
Kanyati Communal Land	62,000	12,995
Matusadonha National Park	137,000	+
<b>TOTAL</b>	<b>504,000</b>	<b>38,157</b>

\* This is an estimate based on the 1984 Central Statistical Office and an annual growth rate of 2.9%. It does not account for immigration into the district, which has been considerable following the eradication of tsetse fly.

+ The National Parks population consists only of employees of the department.

Agricultural production in Omay and Gatshe Gatshe CLs is very low, even in good years, and both CLs are chronically dependent on central government for food aid. Drought relief was first distributed in Omay in 1980 and has continued to be distributed annually since then. Kanyati CL, on the other hand, is better endowed with higher rainfall and more fertile soils. Agricultural production is considerable and although this CL was only recently settled, it is food self-sufficient in good years.

Omay CL is endowed with abundant wildlife resources as indicated in Table 2 below, while Gatshe Gatshe and Kanyati are less well endowed.

The Nyaminyami District Council (NDC) came into existence in August 1981, becoming the first DC for the Kariba district. Prior to this the district had been administered by a District Commissioner from the town of Kariba. DCs were created by an Act of Parliament in 1981 to provide for the representation and participation of the CL population in the government and development of their own areas. The act provided for the election of local representatives to a council serviced by civil servants employed by and accountable to the central government. The new DCs were explicitly required to strive for economic self-sufficiency. However, because of limited revenue generation facilities in the CLs, most DCs have remained dependent on grants from central government for both capital and recurrent expenditure.

**TABLE 2**

**SPECIES AND NUMBERS OF GAME ANIMALS IN ONYA, AND TROPHY FEES PAYABLE BY SAFARI OPERATORS**

Species	Numbers	Trophy fee (Z\$)
Rhino	12	25,000 *
Elephant	2,500	3,500
Lion	200	1,500
Sable	200	800
Leopard	150	700
Hippo	100	600
Buffalo	2,500	500
Eland	250	400
Zebra	800	400
Crocodile	150	300
Waterbuck	600	300
Kudu	1,250	250
Bushbuck	1,050	150
Hyena	150	150
Reedbuck	150	150
Klipspringer	300	100
Impala	5,000	50
Warthog	1,200	50
Bushpig	1,000	40
Grysbok	700	20
Duiker	600	15

Adapted from The Wildlife Of Nyaminyami 1987

\* Rhino hunting is prohibited.

**The Economic Role of Wildlife in Nyaminyami**

So as to administer one of the least developed districts in the country because of decades of colonial neglect, the council with the assistance of some NGOs set about trying to provide some very basic social infrastructure - schools, health facilities, communications networks etc. - of which there were virtually none in the district.

**TABLE 3**

**NDC: LOCAL AND GRANT REVENUES BY FINANCIAL YEAR (1982-1986)**

	1982/83	1983/84	1984/85	1985/86
Game Proceeds	14,346	73,200	37,000	109,707
Other Local Revenues	16,647	31,014	23,339	47,647
Total Local Revenues	30,993	104,214	60,339	157,174
Total Grant Revenues	30,693	46,881	50,217	55,164
<b>TOTAL REVENUE</b>	<b>61,629</b>	<b>151,095</b>	<b>110,556</b>	<b>212,338</b>
Game Proceeds as % of Total Revenue	23.3%	48.5%	33.5%	51.7%

Source: S.M. Hove (Senior Executive Officer) NDC 1988.

Table 3 above shows how wildlife revenues came to play an increasingly important role in financing the NDC in the 1980s. Wildlife revenues have constituted a significant proportion of the NDC revenue since its inception.

That wildlife revenue did not play a more significant role in local development prior to the time NDC was granted appropriate authority in 1989 was due mainly to the administrative bottlenecks imposed by the centralised system of wildlife revenue collection. By 1989, NDC had received from Treasury only 41.5% of its wildlife revenues in the Wildlife Industries New Development For All (WINDFALL) programme. Although not receiving full revenues, NDC realised the potential of using wildlife revenues to finance district projects during this time.

The following comparison of the expected (and hence budgeted) wildlife utilisation funds as against those funds actually received by NDC from central treasury highlights the frustrations of the WINDFALL programme and provides some useful insights into the expectations of NDC to finance recurrent expenditure with wildlife revenues.

**TABLE 4**

**NDC GAME UTILISATION FUNDS: BUDGETED VS ACTUAL FIGURES 1982-1986**

	1982/83	1983/84	1984/85	1985/86
Budgeted	130,000	140,000	125,000	150,000
Actual	14,000	73,000	37,000	109,000
Actual as % of Budgeted	11.04%	52.3%	29.6%	73.14%

Source: S.M. Hove (Chief Executive Officer) NDC 1988.

During this period, wildlife utilisation funds were used mainly to finance the Council's recurrent expenditure with the difference being made up for by central treasury grants as indicated in table 5 below.

**TABLE 5**

**FINANCING NDC RECURRENT EXPENDITURE: 1986-1989**

	1986/87	1987/88	1988/89
Local Revenue	275,173	192,641	341,753
Total Recurrent Exp.	169,488	186,692	235,614
Difference	106,000	5,549	106,139

Source: S.M. Hove (Senior Executive Officer) NDC 1989.

Given that wildlife utilisation revenue constitutes the larger percentage of local revenues, and given also that local revenues are crucial in financing the recurrent expenditure of council, it is hardly surprising that the NDC was the first DC to set in motion the process of acquiring Appropriate Authority from central government to manage its own wildlife resources and thereby circumvent central treasury. The motivation at this stage was not to institute participatory local management and utilisation of resources but rather to capture wildlife utilisation funds at the local level to finance district level recurrent expenditure.

Thus from the outset the objective of NDC in applying for Appropriate Authority never was in order to involve local people in decision making. The minimum requirements for qualifying for Appropriate Authority are however such that NDC had at some stage in the development of its application to start seriously considering ways of involving local people in management and decision making, if only as a way of getting the application granted. Moreover, the negotiation process with NGOs operating in the area, particularly the Zimbabwe Trust (Zimtrust) which eventually financed the first year of the NDC wildlife management programme (by financing all the capital expenditure and the general manager's salary and budget), ensured that provision for local

participation was made. It is significant to note, however, that the local population did not in any significant way participate in the process leading up to application for Appropriate Authority.

Having thus decided that wildlife revenues were vital to financing the NDC's programme for the development of Nyaminyami, the NDC set up a steering committee in October 1985 to draw up a management programme for the district's wildlife resources that would entail the direct payment of wildlife revenues to the Council. Differences regarding the nature of local participation led to the resignation of two prominent members of the steering committee. Concessions were made and the steering committee's work culminated in the establishment of the Nyaminyami Wildlife Management Trust (NWMT) in 1988. Jansen (1990) observes that while community participation was an integral component, the motivation for the Trust's formation was mainly economic.

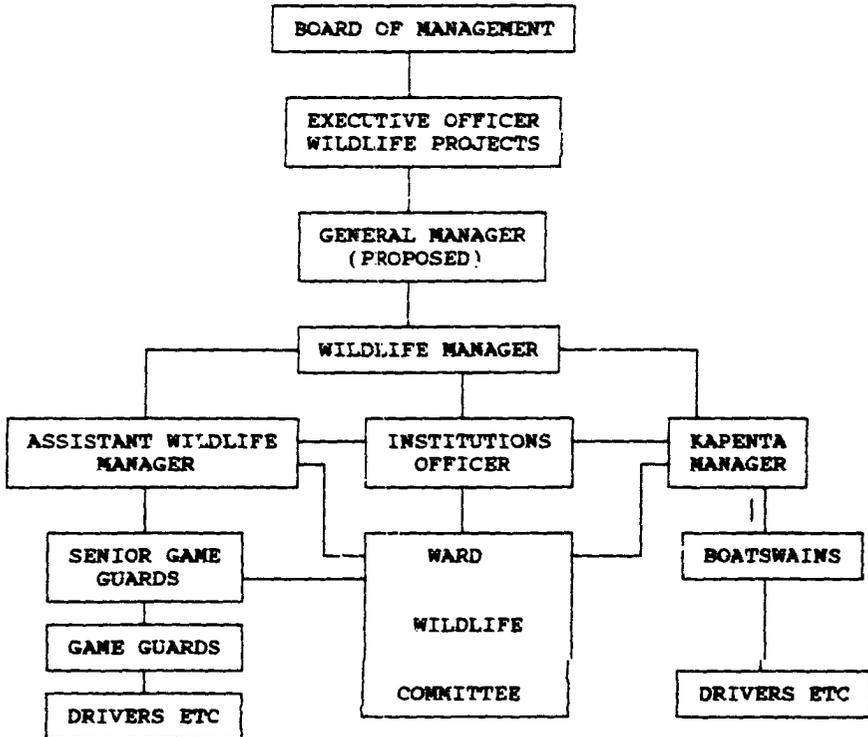
#### The Nyaminyami Wildlife Management Trust

The Trust was set up as an arm of the DC responsible for the sustainable management of its wildlife resources. Membership of the Trust includes all councillors from the district's 13 wards, the 4 Chiefs from Omay's 4 chieftaincies, the Senior Executive Officer of the DC, the District Administrator (representative of central government at the local level) representatives of NGOs operating in the district (i.e. WWF Multispecies Project, Save The Children Fund U.K, Centre for Applied Social Sciences (CASS)), representatives of the commercial interests operating in the district (i.e. the hotel and holiday resorts and the Kapenta fisheries on the shores of Lake Kariba), and a representative of the cooperative organizations operating in the district. The organizational structure and membership of the NWMT is presented in appendix I.

The hierarchical administrative structure of the Trust at this time is presented as figure 2. It emerges from this organization diagram that the NWMT from the outset is developing a very hierarchical structure based on the employment of some very specialised cadre to implement its wildlife management programme. The Ward Wildlife Management Committees are democratically elected and are not employed by the trust. Area Managers have not yet been recruited though this idea is still being actively considered.

FIGURE 2

ORGANISATIONAL STRUCTURE OF THE NYANINYANI WILDLIFE MANAGEMENT TRUST



This top heavy management structure was principally a result of the implementing agency's (Zitrust) insistence on developing council capacity to manage wildlife. Capacity building was considered to be synonymous with the recruitment of outside skill. This is reflected in an increase of recurrent expenditure from Z\$66,488 in 1989 to Z\$214,725 in 1990.

Between 1989 and 1990, wildlife recurrent expenditure increased by 37.2% of which 17.4% was due to labour related expenses. This demonstrates that the managerial structure being developed by the NWMT is negatively affecting the net wildlife revenue and hence reducing the funds available for disbursement to the individual wards. Jansen (1990:17) notes that "The NWMT's first year of operation [1989] as appropriate authority over the wildlife resource can be termed a success, with a strong

ecological/management performance. It scores less well from a local participation point of view".

The fact that NDC had a surplus of Z\$252,865 (c.Z\$5:1US\$) for disbursement to the wards in 1989 is, however, largely due to the fact that the council received substantial support from a local NGO, Zimtrust, to get the wildlife management programme off the ground. According to Jansen (1990:14), in 1989 "Zimtrust financed Z\$20,093 of recurrent expenditure as well as Z\$191,683 of capital expenditure".

Zimtrust continued to finance capital and recurrent expenditure in 1990 under the auspices of a proposed agreement with the NDC. Thus in 1990 NWMT received funds to purchase two Kapenta fishing rigs and employ a Kapenta Manager from Zimtrust. This is another highly capitalised venture which is yet to produce any satisfactory returns on investment. The problems of reliance on subsidies, high recurrent costs and investment in highly capitalised ventures are discussed in the following section.

It is also evident from the NWMT's financial statements 1989 and 1990 that the NWMT relies on safari hunting for most of its revenue. Safari hunting's contribution to net wildlife revenue increases from 85.23% in 1989 to 90.16% in 1990. Thus safari hunting and grants from the Zimtrust account for nearly all of the NWMT's revenues from wildlife management thus far.

The crucial question that emerges here is whether, especially given the high subsidies, household level revenues are sufficient incentive for local participation in wildlife management.

#### The Nyaminyani Wildlife Management Programme: Local Participation or Recentralization at the District Level?

Being the first district council to be granted Appropriate Authority, the NWMT wildlife management programme is very much a pilot programme. It is inevitable in such a situation that mistakes will have been made. It is also inevitable, given the pilot nature of the programme, that decisions will have been taken and implemented that do not facilitate the achievement of the objectives of CAMPFIRE but rather detract from it.

In order to evaluate the NWMT programme thus far, and the CAMPFIRE programme generally, this paper will now consider the economic viability, the extent of local control/devolution and the nature and extent of institutional development in the NWMT programme in turn.

#### 1. Economic Viability : The Problem of Incentives

CPR management theory suggests that the degradation of CPRs, and for that matter resources held under other property regimes, is usually a result of insufficient incentives for efficient resource utilisation. Runge (1986) argues that strong incentives are

required for collective action in the 'village economy', which is characterised by interdependent decision making regarding resource use. Bromley and Cernea (1989) have developed a model which demonstrates that due to poverty, poor resource endowments and a fragile ecosystem, and insufficient incentives to the household for efficient resource use lead to resource degradation.

Lawry (1989) cautions that the changing nature of the 'village economy' is such that individuals have alternative income sources to declining CPRs. Moreover, the natural resources used by individuals are both private and communal in character. Agricultural income, which constitutes the principal source of income, is gained from crop production on individual holdings. Remittances also constitute a significant source of income as villagers seek alternative non-agricultural sources of income. Lawry concludes that "these circumstances can lead to greater competition, and not cooperation, in the use of communal resources" (*ibid.*, p.6). The availability of alternative sources of income to declining CPRs leads to what Lawry (1989) calls "the problem of incentives".

Citing a body of case study literature on the problems of community management of common resources, Lawry concludes that there are two major policy lessons to be learned from these experiences regarding the problem of incentives:

- a). "Collective action is more likely to result where the common resource is critical to local incomes and is scarce.
- b). "Collective action will be more difficult to achieve where interest in the resource as a source of income varies, or where resource use strategies differ significantly" (Lawry, 1989:9).

## 2. Is Wildlife Critical to Household Incomes in Nyaminvami?

The CAMPFIRE programme attempts to give villagers a share of the revenues generated from the utilisation of wildlife in their areas. CAMPFIRE is based on the basic tenet that "the key mechanism for the effective custodianship of wildlife resources is to give focused value for those who are its de facto managers" (Pangeti 1990:5). These managers are recognized as the communities who incur the costs of management.

The problem of turning wildlife into a critical resource in the communal areas of Zimbabwe is not one of improving existing common property management arrangements because these do not exist and are only now being implemented, but one of replacing an inefficient state management system with new local management. Wildlife as a resource has been alienated from the communal populations since the promulgation of the "King's Game" laws at the turn of the century. Consequently, CL populations have come to see wildlife as a cost rather than a benefit. CAMPFIRE attempts to institute local management at the same time that it changes this perception of wildlife. Given such a scenario, it is necessary for wildlife to

demonstrate its ability to earn incomes for rural households that are in excess of their meagre incomes from other sources.

In the case of Nyaminyami, these revenues have amounted to Z\$99.00 per household in 1989 and Z\$24.25 per household in 1990. It is, however, interesting to note that the number of households recognised in the NWMT's financial statements doubled from 2,000 in 1989 to 4,000 in 1990. It is not clear why this is so since there was never any renegotiation of what constitutes a household during this time. A probable explanation would be that the council is imposing its own definition of household on the communities. The figure of 4,000 households is more likely to be accurate if it is assumed that average household size is 10, in which case the total population of the district would be around 40,000. If there were 4,000 households in 1989, then per capita income from wildlife revenues in that year was Z\$49.50, and not the Z\$99.00 suggested in the financial statement.

It must also be borne in mind that this dividend has been made possible by a loan to the local authority from Zimtrust. Without this loan, the dividends would certainly have been much lower or not even available. The question that then arises is does this dividend represent a sufficient economic incentive for individuals households to participate in community management of wildlife? Alternatively, the question might be posed: "is the level of income such that wildlife constitutes a critical resource to the household economy"?

The answer to this is that wildlife income is definitely not critical to the household economy. A study of land use strategies and household incomes carried out in the Omay CLs in 1990/91 (Murobedzi, forthcoming) suggests that a significant proportion of household cash incomes in Nyaminyami are from wage labour in the form of remittances earned as casual labourers on commercial farms or other communal areas during the peak agricultural season. Many individuals also earn cash incomes from agricultural and other forms of wage labour within the district (such as constructing houses or clearing fields for those who can afford to pay for the service).

The majority of households in the study also had access to income from livestock sales (typically goats) and these are sold when there is a need for the cash, usually to pay school fees, to buy seed, to get a field ploughed or to travel.

The study also shows that most of the cash income earned by the household is invested in crop production, in the form of purchases of inputs (mostly seed and some animal draught machinery as well as hand implements) and mechanical draught power. About 60% of the households in the survey had hired a tractor to plough at least 1 acre of their land during 1988/89 and 1989/90 agricultural seasons. The cost of ploughing 1 acre is Z\$32.00, while the cost of a 20 kilogram bag of seed maize (sufficient for 1 acre) is about Z\$25.00 locally. Hence the revenue earned from wildlife is already much less than what the average household invests in 1 acre of its land per season.

The study also established that the majority of households (about 90%) do not consider wildlife as being of any benefit to them. Instead it still constitutes a cost and the typical solution suggested is that wild animals should simply be driven away from the CL and fenced-off in nearby Matusadonha National Park. The majority of those households that perceive some benefit in wildlife typically see it as some aesthetic rather than economic benefit.

However, the study also demonstrates that the level of cash incomes of the majority of households is low. As such wildlife can still constitute a future critical economic resource to the household income if revenues increase and per capita dividends rise significantly. However, the levels of incomes appear to be greatly uneven. The amount of differentiation calls for different strategies which are considered in the next section.

### 3. Household Differentiation and Resource Use Strategies

Lawry (1989:11) observes that "when groups of households vary in their economic interests in the communal resource, and in their management practices generally, so too they may vary in their willingness and ability to adopt certain aspects of any communal management scheme. The dilemma is one of achieving coordinated, common behaviour in an environment characterised by producer diversity".

The problem of household differentiation as it affects the value of wildlife is a crucial one in the Nyaminyami case and one that has not been given the attention it deserves by the local authority and their advisers (including CASS). The distribution of benefits has been on an equal basis to all wards in the Omay, Kanyati and Gatshe Gatshe CLs without any regard to differences in the contribution of each ward to revenue. However, more than 90% of all wildlife revenue is earned from the Omay CL, which also has the lowest agricultural income and the highest incidence of crop and livestock destruction by wild animals. It follows from this that wildlife income is likely to be more critical to Omay households than to those in the other CLs in the district and as such Omay's benefit from the wildlife revenue should be proportional to its contribution.

Secondly, following the eradication of tsetse fly, there has been an influx of migrants into the Omay CL. Typically, these immigrants are enterprising individuals from other CLs outside the district whose main aim is to open up large tracts of land to engage in cash crop production, or to bring in large herds of cattle to graze on the vast unexploited pastures of the Zambezi Valley. The local authority has found it difficult to stop this in-migration, principally because it is supported by the long term residents of the Omay who see advantages in a larger population base. The advantage of in-migration for the Omay population is twofold: Firstly, in-migrants increase the range of human settlement and thus peripheralize wildlife (and hence also reduce the amount of crop and livestock destruction). Secondly, the migrants bring in

livestock and hence draught power to which the long term residents of Omay have access (Murombedzi, forthcoming).

The NDC has attempted to exclude these households from the benefit of wildlife revenue by not compensating them for crop and livestock destruction. However, the ward revenues are being invested in ward projects from which the migrants will no doubt benefit even though they are not dependent on this CPR for their livelihood.

Thirdly, because of differential access to non-agricultural forms of income, the population of Omay itself is very differentiated and is thus very likely to have different aims regarding common property resources. The survey of land use strategies (Murombedzi, forthcoming) shows that those households with high incomes are typically investing in livestock and see wildlife as potential competition for grazing. Their typical solution is once again that wildlife should simply be driven out of the CL as it does not benefit anyone. Such households do not perceive any economic value in wildlife because incomes are so low compared with their other incomes as to be insignificant.

Thus it is necessary for the NWMT programme to pay attention to differentiation in the distribution of benefits if it is to facilitate collective action in local level wildlife management and if wildlife is to become critical to the incomes of those households whose livelihoods depend on access to the commons. As Lawry (1989:4) observes: "Local common property management will not emerge simply by giving greater official reign to local action. Policy initiatives will have little impact unless an important array of incentives supportive of common property management are operating at the local level".

CAMPFIRE assumes that wildlife is necessarily viable wherever it occurs in commercially exploitable densities, i.e. where it is attractive for the tourist/safari industry. Very little scope is given for local management strategies that might not involve commercial exploitation to create revenues for investment in other programmes/projects. There is an urgent need to give local communities capacity to actually utilise the wildlife resources rather than to simply accept existing utilisation patterns on the basis of economic viability for safari operators. The NDC has not considered investing in the safari industry and thus localising all wildlife revenue. Ultimately, this might prove the only viable solution for instituting a NDC/community co-management arrangement which would not only guarantee local participation in the actual exploitation of the resource but would generate considerable local employment.

#### 4. Decentralising CPR Management: The Extent of Local Control in Nyaminyami

In implementing CAMPFIRE, DNPWM circumvented other line ministries, particularly the Ministry of Local Government and Rural and Urban Development (MOLGRUD), by negotiating with individual local authorities and 'communities' through an NGO. This has hampered the

participation of some government departments whose participation is otherwise vital for the successful implementation of the Programme.

This is particularly true of the MOLGRUD which has been slow in recognising Appropriate Authority and hence in giving local authorities sufficient scope to decentralise resource management to local communities.

CAMPFIRE also assumes that district councils are willing and will be able to further devolve management to wards and villages. The literature on decentralisation suggests that this is neither a simple process nor one that can be put in motion by outsiders (de Valk and Wekwele 1990). Moreover, devolution to the ward or district level does not represent the best management solution for common properties, in most cases the most viable institutional options involve some co-management between different levels each with clearly defined rights and obligations both to the resource and with regards to other co-managers. (Berkes and Favar, 1988; Lawry 1989, Murphree 1990).

The NWMT is in the process of setting-up ward wildlife management committees. These committees are elected by universal adult suffrage and have the task of planning and managing the investment of wildlife utilisation funds. They are not asked to make any decisions regarding the earning of the revenue itself. Moreover, the new institutions do not decide on the projects in which they are to invest their ward dividends. This decision is typically made by the DC, upon submission by the ward committees of a number of different project proposals. NDC retains the right to veto any proposal or suggest one that it deems more "viable" or "sustainable".

The fact that wards have to submit project proposals for ratification by council, while it can be defended on the grounds of a need to coordinate development and provide expertise that is lacking within the communities, is reminiscent of the relationship that existed between DCs and central treasury under the WINDFALL Programme. Under WINDFALL, development funds to DCs on the basis of development plans had to be approved by Treasury.

It is also worthwhile to note here that the decision to disburse funds to the ward for investment in ward projects was not taken by the wards themselves, but rather by the NDC.

The question of administrative accountability is also crucial to CAMPFIRE implementation. Because of the structure of local government, DC employees are accountable to the government rather than to the Council and their actions are thus designed to conform to the requirements of their departments than to council policy. Moreover, DCs are themselves not accountable, in practice, to the constituencies they purport to represent. This raises a whole series of questions about the nature and extent of local participation in CAMPFIRE.

NDC seems to have retained all control over wildlife revenues, and the skill and capital intensive structure that has been developed to manage wildlife is likely to be difficult to replicate at the community level. It would appear that the programme runs the risk of centralising at the level of the DC, as indicated by the following observations on the distribution of revenue.

Discussing the decision-making process by which wildlife revenues were allocated for various purposes, Jansen (1990:14) observes:

"The fact that only 10% of the funds were retained by the district council as a levy and only 12% retained in a reserve fund was the result of "countervailing forces" within NWMT. ... The district councillors, representing the wards, required the support of outside members of the board of management meeting to assist them in making a strong case for a sizeable "immediate" benefit to each ward. They argued against the need to retain funds for capital expenditures..."

The fact that NDC is interested in maintaining the bulk of wildlife revenues for capital expenditure seems to suggest that local control over the resources is limited. A typical response to the question: "who in your opinion owns the wildlife resources of this communal area?" is either the district council or the wildlife manager (Murombedzi, forthcoming). Local people argue that they do not even participate in making decisions about wildlife and therefore cannot consider the resource to be their own.

##### 5. Institutional Development in CPR Management in Nyaminyami

The problem of developing appropriate common property resource management institutions at the local level is obviously part of the wider CPR problem which includes the issues of incentives and control. In the CAMPFIRE case, the creation of local institutions to replace inefficient state control assumes that the ward, created at local level, is not an appropriate institution for CPR management, is at least an appropriate basis on which to build such a desired institution. It is also assumed that the ward will be able to develop some enforceable rights to the resource in relation to other interest groups. Consequently, most CAMPFIRE efforts at institutionalising local management of wildlife have focused on developing ward capacity.

CAMPFIRE assumes further that communities can be defined simply as wards or villages and that they are amorphous. However, some very serious conceptual and practical problems constrain most definitions of community and the level of differentiation in most seems to suggest that the target populations may not have similar objectives regarding the resource in question (Cousins 1989, Scoones and Wilson 1989).

The CAMPFIRE focus on the ward is relevant in so far as the ward, being a creation of central government, already has some political legitimacy as well as a defined place in the development planning process. It also has the advantage that it would not create other

institutions that would compete with existing local institutions in establishing authority and control over CPRs.

However, the creation of local institutions necessarily has to consider other more crucial issues if such institutions are to be of any value in mobilising the participation of those whose incomes depend on the commons in their management.

Firstly, the WADCO as an institution of local government is not necessarily representative of those members of the community whose livelihood is critically linked to access to commons. It is more likely to be representative of those members of the community whose interest in local government is to secure their incomes from other sources.

Secondly, the ward as a unit of local government is not necessarily a community. It rather represents a divergence of interests and use rights in the common property resources. It is therefore possible that some groups within the ward can capture this institution for interests which exclude the sustainable management of common property.

A more fundamental shortcoming is that CAMPFIRE does not recognize customary usufructuary rights and the processes by which they are defined as being crucial in implementation or definition of "appropriate local institution", yet this may ultimately determine the extent of local participation in the programme (vide e.g. Berkes and Farar 1990; Murombedzi 1990; Lawry 1989; 1990).

While state control over wildlife resources for well over a century may well have eroded such usufructuary rights in the resource as may have existed, it is also possible that local responses to state control consisted of redefining such rights. One of the major problems faced by DNPWM was to control "poaching" or "informal cropping" by local residents of the communal areas. It is not clear whether poaching was a coordinated response of people against state control of the wildlife resources or whether it was an individual enterprise.

Indications are that poaching is more extensive than is officially recognised and that it is also possibly organised around groups of hunters. In this case, it is also possible that there is a system of distributing the proceeds of poaching among clearly defined beneficiaries. To the question: "Do you know of anyone who hunts or traps wild animals for meat?", the typical response has been "Yes". The answer to the question that seeks to establish the existence of any network for distributing the meat has been more evasive, perhaps because of the legal implications. However, most respondents say that meat is usually sold or exchanged for grain in other districts to avoid detection (Murombedzi, forthcoming).

It is thus not clear whether there is any organised off-take of animals in the Nyaminyami. The point, however, is that the very existence of illegal off-take might imply some underlying institutional arrangement which defines rights etc. and which may prove a valuable starting point in identifying local usufructuary

rights in the wildlife resource. It is necessary for research to identify any such rights and make policy recommendations on how they can best be built into the policy process.

In addition to defining usufructuary rights, CAMPFIRE must recognise legitimate local interests in the resource. The current focus on hunting as the most viable method of generating revenue from wildlife may have the effect of curtailing the development of other local interests in the resource, such as local hunting. If they are not recognised and given full scope to develop, such interests may yet again be driven underground and thus act to undercut the authority of local institutions. Thus while state interests in wildlife are clearly defined, CAMPFIRE does not define local interests in the same resource.

## Conclusions and Policy Recommendations

The following major conclusions can be drawn from the foregoing discussion of the Nyasinyami experience.

- There is an urgent need to ensure that sufficient incentives exist for individual households to participate in local management of wildlife.
- It is necessary that local authorities avoid investment in high capital projects as these can easily become self perpetuating, with the result that the bulk of wildlife revenues are used to finance recurrent expenditure rather than to become an important part of household incomes.
- Benefits should include improved crop and livestock protection, employment opportunities, better access to the wild animals themselves, and local control or influence in the decision making process.
- Local authorities, as well as other institutions developed to manage wildlife resources, should be more accountable to the people for whom that resource is managed.
- It is also necessary, in this connection, for the distribution of benefits to take account of differential resource endowments, interests in and contributions to the management of the resource.
- Rights in wildlife, particularly customary usufructuary rights, need to be more clearly defined if local institutions are to become viable units of local level CPR management. The right of communities to certain minimum benefits from wildlife should also be specified. In this connection, differences in resource endowments as well as differentiation within the communities concerned should be considered.
- The co-management relationship between the local communities and councils should also be clearly defined and given a legal basis in order to preempt the possibility of recentralization at council level.
- All government departments at all levels with an interest in CPRs should be involved at all stages of programme implementation to prevent competition and misunderstanding.

MEMBERSHIP OF NWNT

NYAMINYAMI DISTRICT COUNCIL (Chair)	13 Councillors
NYAMINYAMI DISTRICT COUNCIL	S.E.O. <sup>1</sup>
MOLGRUD	District Administrator
GOVERNMENT MINISTRIES	4 representatives <sup>2</sup>
DISTRICT DEVELOPMENT FUND	Senior Field Officer
NON-GOVERNMENT ORGANIZATIONS	2 representatives <sup>3</sup>
COMMERCIAL SECTOR	1 representative
"TRADITIONAL" AUTHORITIES	All 4 Chiefs in Omay
DNPWN	1 representative

<sup>1</sup> Senior Executive Officer of Council.

<sup>2</sup> Representatives of ministries actually operating at the district level, in this case the ministries of Natural Resources and Tourism, Lands Agriculture and Rural Settlement, Community and Cooperative Development, and Manpower Planning and Social Welfare.

<sup>3</sup> Representatives of NGOs actually operating in the District. However, the trust board now constitutes representatives of two NGOs (WWF Multispecies Project and the University of Zimbabwe's Centre for Applied Social Sciences).

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