

**CAMPFIRE - A STRATEGY TO BIODIVERSITY
CONSERVATION IN ARID AND SEMI-ARID AREAS OF
ZIMBABWE**

Thematic Area: Biodiversity and Forestry

by

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July 2002

Abstract

OVER half of southern Africa is semi-arid to arid rangelands, which evolved under indigenous multi-species systems. They were exposed to multi-species (domestic and livestock) pastoral systems about 2000 years ago. Only in recent times have monospecies (domestic livestock) production systems come to predominate. There is nothing inherent in monospecies production systems that make them more economically effective. In fact, multi-species systems have a comparative advantage at the economic and ecological level. However, legal, political, social, technical and trade constraints have been operating to negate the efficient and effective utilization of wildlife and its complementarity with domestic species.

The Communal Areas Management Programme for Indigenous Resources (CAMPFIRE), and other similar initiatives in southern Africa, attempt to realize a rediscovery of multi-species rangeland utilization in modern times. A structure for community ownership and a system of economic incentives is essential. A case study of CAMPFIRE and specific examples from Masoka village in Guruve and Sinansengwe area of Binga, provide insights into what it will take if modern African governments are to foster this opportunity both to enhance development and conserve biodiversity. A warning is sounded that external factors concerning policies and conventions on international trade in wild species may negatively impact on this opportunity. A joint effort is needed between developed and developing countries, and between modern African governments and modernizing but still largely customarily organized rural communities.

This report will also demonstrate that CAMPFIRE is a viable land-use option in combating desertification and enhancing biodiversity conservation. The programme is being implemented in the marginal rainfall areas of Zimbabwe characterized by poor fragile soils and severe seasonal dry spells. The case study will highlight that success in biodiversity conservation in southern Africa is dependent on the creation of dynamic institutions that assume formal ownership, decision making regarding policing, monitoring and sustainable harvesting of resources in their areas of jurisdiction. Clarification of land tenurial rights, decentralizing and community empowerment through resources sharing will also be discussed. Conventions such as the Framework Convention on Climate Change (FCCC), the Convention on Biological Diversity (CBD) and Convention on Desertification will be informed about the Zimbabwean CAMPFIRE experience in community-based natural resource management through lessons drawn from the programme implementation.

The case study will look at biodiversity and the closely related issue of sustainable communal land use in the arid and semi-arid rangelands of southern Africa through the ecological and economic integration of wildlife and domestic animals. The paper will argue that communal agro-pastoralists, as the effective managers of the land they occupy, are the best placed to take responsibility for rangeland biodiversity. They are, however, seldom consulted on the matter because wildlife and biodiversity are usually seen as national or global resources, which belong to nobody in particular. Farmers, worldwide, generally lack adequate legal, institutional, economic and technical resources to conserve biodiversity. Fundamentally, they lack the incentives to do so.

Acknowledgements

1. The introduction and background sections for this case study draw substantially from papers by David Cumming (1993 and 1994), Director of the WWF Zimbabwe Office
2. The rest of the study draws substantially from two papers by Simon Metcalfe
 - 2.1: "The CAMPFIRE Programme: Community-based Wildlife Management in Zimbabwe commissioned by Professor Norman Uphoff, Director Cornell International Institute for Food, Agriculture and Development (CIIFAD)
 - 2.2 "Community-based Conservation and Community Self-governance: Whose Resource are at Stake" commissioned by Ed Barrow-Community Conservation Coordinator (African Wildlife Foundation-East Africa) for Reading University Extension Bulletin

Background

Almost half of southern Africa is semi-arid to arid and gets less than 750 mm of rainfall in a single rainy season, which normally falls between October and April. These rangelands evolved under indigenous multispecies systems typically carrying 15-25 ungulates species. They were first exposed to multispecies pastoral systems about 2000 years ago. Only within the last 150 years have they been largely replaced by single species ranching systems. In southern Africa today more land is under domestic livestock production than any other land use. Far more research, extension and investment have been put into single species (domestic) production systems than multispecies (wildlife), or mixed systems.

The economic viability, productivity and sustainability of single species is declining in the arid and semi-arid areas of southern Africa. In addition to population growth, declining per capita food production and land degradation, there is a great need to closely examine current development and land use policy. The development of sustainable, extensive animal production systems, for both livestock and wildlife, demands that attention is given to ecological, legal, social, cultural and political factors in addition to the financial and technical production criteria, which usually drive policy prescriptions.

The viability of multispecies production systems has been proven under commercial ranching conditions in southern Africa (Jansen, Child and Bond, 1992). The viability of wildlife management in communal rangelands management is far more complex. About 90% of wildlife revenues presently earned through the communal lands programme, CAMPFIRE, in Zimbabwe, are generated from safari hunting (consumptive use) with 64 % being generated by elephant hunting alone. The elephant is paying the bulk of the rent that is conserving habitat for all wildlife. Removing elephant hunting would be removing the incentives for multispecies production systems altogether. In addition, for every dollar the CAMPFIRE programme earns through consumptive wildlife use, the country earns a further two dollars, all of it in hard currency.

Under commercial management, the farmer as the owner/manager, given utilization of wildlife rights, can assess the risks individually and make decisions timeously. In the communal setting it is still rare in southern Africa to find authority over, and management of, wildlife and other natural resources, in the same hands. In addition, communal decision-making involves painstaking consensus building that can result in high transactions costs. Though the economic and financial considerations of commercial and communal production systems are comparable to the socio-economic, cultural, legal and institutional arrangements, they are both different and more complex.

CAMPFIRE: Community-based Natural Resources Management in Zimbabwe –a solution to biodiversity conservation.

THE Communal Areas Management Programme for Indigenous Resources, well known by the acronym CAMPFIRE, evolved as an undertaking to reconcile the different interests of government and community authorities control over wildlife resources. In the 21st century Zimbabwe, the ascendancy of bureaucratic rules over traditional conventions is real but not always very deep. Nowhere is this more obvious than when reviewing the relationship of African governments to the natural resources in their domain.

The CAMPFIRE programme began as a uniquely Zimbabwean initiative, responding purely to a unique set of historical conditions. The initial concept of the programme was conceived as early as 1982 by the Department of National Parks and Wildlife Management (DNPWM) out of concern to arrest the rapid decimation of wildlife species within and outside National Parks and to correct the colonial imbalances in dealing with conservation issues.

Specifically, the programme is about conservation and rural development. It seeks to promote natural resource utilization as an economic and sustainable

land use option in the interest of both the conservation of natural resources and the relief of human poverty.

In this regard, the programme represents a conservation ethic based on the premise that for local communities to appreciate the value of natural resources there must be a deliberate policy to give them tenure of resources and benefits accruing from wise use. The rationale is simply that flora and fauna management is a cost to communities in terms of land use (opportunity cost), crop destruction, livestock predation and often, loss of human life.

CAMPFIRE therefore is about devolution, empowerment and co-management of indigenous resources. By devolving powers to local communities to manage their indigenous resources, CAMPFIRE not only re-unites communities with their tradition after 90 years of colonial rule, but also enables them to blend traditional knowledge systems with modern scientific skills such as aerial and ground surveys necessary to decide off-take levels for sustainable utilization of natural resources.

CAMPFIRE's main principles can be summarized as follows:

Principle 1: Allow benefits accruing from wildlife and other indigenous resources to be retained by communities as follows:

- Rural District Council (RDC) to retain no more than 15% of total income from the projects as a levy to cover overheads;
- Council to spend no more than 35 % of total revenue generated from wildlife and other natural resources;
- 3 percent of revenue to go to CAMPFIRE Association as levy; and
- The rest of the money to go to communities.

Principle 2: Producer communities must be given the full choice of how to spend their money, including both cash dividends and decision to embark on infrastructural development projects they see fit.

Principle 3: Producer communities should be small and homogeneous

Principle 4: Councils should involve community representatives on all key decisions albeit planning, project formulation, among others, and be accountable to national government, CAMPFIRE Association and the grassroots people on all financial, ecological and social issues surrounding CAMPFIRE

Principle 5: Marketing and engagement of safari operators should be based on open competition through auctions or tenders, which must be advertised.

It is worth noting that before the white settlers came to Africa, Zimbabweans had developed a cultural linkage with their environment which worked well to allow for sustainable harvesting of natural resources be it trees, forests, game or insects. With the use of force, white settlers appropriated large tracts of land and forced the majority of African people into the most denuded areas called reserves. A lot of animals were shot and killed by the settlers in a bid to clear land for cultivation and most of the sacred forests and trees were ploughed down, thus dealing a heavy blow to the cultural practices, which linked African people with their environment.

The lucky species that survived the onslaught were driven into protected areas and commercial farms. Wildlife became the property of the Queen and hunting by the indigenous people became *ipso facto* illegal. In fact, it was made a capital punishment offence in practice as any villager seen with dogs in commercial farms or protected areas risked being greeted with bullets. As the wildlife population increased, much of it could be seen spilling into communal areas where they destroyed crops and killed people. This, to the locals, was seen as a symbol of oppression and inevitably led to great resistance to all government efforts to preserve wildlife, which, in the eyes of communities had become mere pests that had to be eliminated through poaching or other means.

The Government of Zimbabwe was quick to realize that its protectionist method of conservation was unsustainable in view of increasing population and thus sought to change legislation with a view to allowing sustainable hunting to landholders.

LEGISLATIVE CHANGES

The two major legislative instruments which were key to the establishment of CAMPFIRE were:

- (a) The 1975 Parks and Wildlife Act (amended in 1982) which forms the basis for wildlife Management policy through the granting of Appropriate Authority (AA) to landowners; and
- (b) The Rural District Councils Act which creates and defines various structures and powers of local government units in communal areas.

- (a) The 1975 Parks and Wildlife Act

The 1975 Parks and Wildlife Act is widely regarded as the cornerstone of Zimbabwe's conservation. It established a Parks and Wildlife Board mandated to provide for the protection, utilization and conservation of fish and wildlife and the

preservation of the natural landscape. The Act also called for the designation of national parks, sanctuaries and safari areas.

However, the most significant passage of the Act concerned the rights of landowners to use wildlife to their own advantage with minimal interference from the government. But, the immediate effect of the Act was only beneficiary to the largely white commercial farmers. The land tenure system in the communal areas made it difficult to confer the same rights to communities who had no secure tenure of land. It was only after independence that the Act was amended to allow communities to enjoy the fruits of wildlife conservation through the Rural District Councils Act.

(b) Rural District Council Act 1982

The rural District Council Act came in force as a directive of the Prime Minister in 1982. The Act, which is administered by the Ministry of Local Government and National Housing, sets up local government institutions which are the RDC itself, the Ward and Village Committees. The Ward also provides for the creation of conservation committees as sub-committees under the RDC. The powers of the RDC are further enhanced by the Communal Lands Act, which gives them (RDCs) powers to control the occupation and the use of communal areas.

The period 1982-1987 saw intensive consultations between the DNPWM and non-governmental organizations in an effort to refine the CAMPFIRE concept. In 1988, an agreement on the implementation of CAMPFIRE was mooted between DNPWM, the Zimbabwe Trust (a local rural development NGO), the World Wide Fund For Nature (WWF) and the Centre for Applied Social Sciences (at the University of Zimbabwe) who established a loose coalition to form the CAMPFIRE Collaborative Group (CCG). This group worked closely to encourage RDCs to apply for AA.

Two districts, Nyaminyami and Guruve were granted AA in 1988. In 1989 the districts increased to 12 and a steering committee comprising of 12 RDCs was formed in the same year to explore ways of forming an Association that would co-ordinate CAMPFIRE activities and lobby effectively for the sustainable utilization of natural resources. A year later, a draft constitution establishing the CAMPFIRE Association established its secretariat. Since then, the CAMPFIRE programme has expanded rapidly in terms of both size and focus. To date, CAMPFIRE Association boasts of a membership of 49 RDCs out of the country's 57 administrative districts. The range of activities in these districts include sport hunting, non-consumptive eco-tourism, and the exploitation of other natural resources such as forestry, minerals, aquatic resources, river sand and others.

IMPLEMENTATION OF CAMPFIRE

Local Level Institutions

The key institution for the implementation of the CAMPFIRE programme at grassroots level is the RDC whose power to control occupation and the use of communal areas is well enshrined in the Communal Areas Act of 1982.

It needs stressing that while the responsibility for wildlife management is conferred to the RDC through the granting of AA Status, CAMPFIRE principles and guidelines established by the Department of National Parks and Wildlife Management encourage further devolution of responsibility to producer communities usually a village. Such devolution follows existing government administrative structures, from the RDCs Wildlife Management Committee to the Ward Development Committee (WADCO) and ultimately to the Village Development Committee (VIDCO), thereby vesting control at the lowest possible tier at grassroots level. This confers a legal status upon the CAMPFIRE Committee while also enabling the representation of locally recognized authorities such as traditional leaders and other informal authorities.

It is also worth noting that the CAMPFIRE programme places high emphasis on the principle of producer community based on the cost benefit approach. What this means in the case of the programme is that while the whole district may be a member of the CAMPFIRE, only those wards or villages which have relevant natural resources will be involved in the respective CAMPFIRE committees and thus be entitled to benefit from the resources. So if a ward or village is embarking on unfettered agricultural activities and has no viable population of wildlife or other resources, such communities will not be expected to enjoy benefits arising from natural resources management. It is therefore clear that the role of the RDC as a planning authority is to facilitate community efforts in natural resource management and certainly not to own the programme. It is the communities who preside over the management of the programme and it is the communities themselves who should be the primary beneficiaries.

National Institutions

At the national level, the CAMPFIRE Association is the lead and accountable agency for CAMPFIRE activities. Registered as a Welfare Organisation or non-governmental organization, the Association is represented at the Board of Management by elected community representatives drawn from its General

Assembly of Rural District Councils who are able to steer the programme to the requirements of communities.

With a modest secretariat headed by a programme manager, the Association's major role is to lobby for policy framework supportive to the principles of sustainable utilization of natural resources both nationally and internationally. Another primary role is to co-ordinate a loose consortium of government and NGOs popularly known as the CAMPFIRE Service Providers (previously the CAMPFIRE Collaborative Group). These organizations provide critical services to communities ranging from capacity building; quota setting; legal Advice and several others. See table below: CAMPFIRE Service Providers:

Table 1

STATUS	AGENCY/DEPARTMENT	ROLE
Lead	CAMPFIRE Association	Programme co-ordination, policy communication, lobbying
Gvt	Department of National Parks and Wildlife Management	Policies for wildlife, quota setting
NGO	Zimbabwe Trust	Training, capacity-building, institution building
NGO	ACTION Magazine (a sub unit of Zimbabwe Trust)	Environmental education
NGO	World Wide Fund For Nature	Biological monitoring, training in quota setting
NGO	Africa Resources Trust	International advocacy, public relations
Gvt	Department of Natural Resources	Policy co-ordination, land use planning
Parastatal	Forestry Commission	Woodland Management, participatory approaches
NGO	Southern Alliance for Indigenous Resources	Participatory Rural Appraisal, woodland management

CAMPFIRE AND LAND USE PLANNING

Communities are involved in the systematic assessment of land and water potential, alternatives for land use and economic and social conditions in order to select and adopt the best landuse option. The process is long since it involves the identification of landuse problems and opportunities. The stakeholders discuss the pertinent issues in general community meetings and explore possible

alternatives to harmonise the use of resources without necessarily jeopardising the interests of other groups such as grazing committees. In Maitengwe Project Area of Bulilimamangwe District, in Matabeleland South, the community, with the assistance of experts adopted a landuse system that accommodates wildlife, arable, pastoral and settlement areas.

The Zambezi Valley, which is Zimbabwe's northern boundary, has long been infested with tsetse fly, with the result that cattle have high mortality. This means that wildlife, which have natural immunity, have not had to compete with domestic cattle for forage resources, as they have in the south of the country. The success of the government's tsetse eradication programme in the 1980s, combined with skewed incentives for beef production, threatens biodiversity through the loss of wildlife habitat.

The tsetse control debate has polarized opinion. Proponents justify the programme by claiming that enhanced cattle and farm production opportunities following the removal of the fly will enhance development. Groups supporting conservation of natural systems argue that the fly is the ally of conservation and its removal raises the possibility of adverse land uses and uncontrolled settlement, leading to habitat destruction and degradation of the land itself.

Land use planning without an enforceable tenure structure leads to an "open access" situation, which pits technocrats, elected local authorities, politicians, and traditional authorities, against one another. Local authorities accuse traditional leaders of allocating land unwisely. Traditional authorities say Councils are attempting to govern something that is not theirs. The Veterinary Department says that cattle in some areas must be removed, but politicians are generally not prepared to enforce evictions. This is part of the wider socio-political environment within which CAMPFIRE must operate. CAMPFIRE offers a tenure structure for wildlife and other natural resources that allows for their conservation and use by a community, alongside individual cropping and livestock production.

The DNPWM supported by the CAMPFIRE Association and collaborating NGOs, advocated that the rural village should be the responsible unit for managing wildlife. However, the local authority supported by its parent ministry was the legally-recognised authority for decisions governing land and natural resources, to which all sub-units of communal organization were accountable. The major issue was: who would actually pay the costs for and reap the benefits from natural resources management? And especially: what would be the relative and reciprocal rights and responsibilities between village, ward, and district units? Also, at issue was the relationship between modern and traditional authorities, and between them and technical agencies.

Against this background, a case study of CAMPFIRE's development and implementation in Guruve district will highlight particular aspects of the programme.

CAMPFIRE in Guruve district does not focus mainly on activities at the district level. Instead, from the outset there was a vigorous interactive negotiation between the community and district institutions. Wildlife, for example, is unevenly distributed in the district. The north-western part joins a protected safari area, which has a reservoir of wildlife. Prior to the district being given authority over wildlife resources, CAMPFIRE NGOs had visited Masoka village, in Kanyurira ward, and had helped raise their awareness both of wildlife's potential, and their rights to its benefits.

The Guruve District Council in the first year of CAMPFIRE, allowed the revenue from wildlife to be distributed according to the natural distribution of big game. Also, it gave Kanyurira, but not the other wards, a free choice of how benefits would be distributed. Kanyurira ward is quite large (400 sq. km) with a small population. The area is rich in wildlife and for many years has been utilized by professional safari hunters who paid central government. In 1988 a CASS study showed community attitudes toward wildlife that were generally negative; local residents were concerned mostly with gaining more community services from government, controlling tsetse fly, and encouraging new settlers.

Following distribution of direct benefits to the Kanyurira community, through CAMPFIRE, wildlife came to be seen as a community endowment and something of economic benefit, to be nurtured rather than eliminated. "We see now," said one elder, "that these buffalo are our cattle." The process had rekindled a proprietorial attitude toward the ward's wildlife. Living with dangerous wildlife is always a mixed blessing, but some form of "usufruct right" allows a local cost-benefit trade off to be made. Once people in Masoka decided that that their wildlife was worth having, its conservation status improved.

Kanyurira ward elect their own Ward Natural Resources Management to actively manage their involvement in the project and the revenues that resulted on behalf of their community. Clear entitlement to the natural resources meant that instead of community members having to be taught conservation awareness from the above, they were motivated to learn what they need to know. "Long back we had a distant relationship with the Guruve Rural District Council. Now, we have a close one because we have money in our pockets."

At first, the Council maintained that the community was not capable of administering the wildlife funds, which amounted to some US\$20 000. In 1991 a member of the Wildlife Committee said..."we wish to be fully in charge of the revenue which accrues to our village. We want to have autonomy from Guruve Council. But I think this will take time because we don't know how to go about it." In fact, within a year, the ward had requested, and had received, training in committee operation and fund management training from Zimbabwe Trust, and the Committee was able to maintain its double entry ledger book. Given an

enabling “ownership” structure, the community members were highly motivated and rapidly learned what they needed to know, to the point of tracking the US dollar rate of exchange with the Zimbabwe dollar.

At the first annual general meeting of the Kanyurira Ward Wildlife Committee in 1990, some women argued they had been left out of the dividend distribution. As heads of households, divorced or widowed, they claimed an entitlement right. The committee had to review its rules of participation. Households had been considered as the basic membership units of the community, but what qualified as a household? Masoka village decided that a household existed if it had its own kitchen and a family group ate together. This then meant, for example, that polygamous marriages were one household as they cooked and ate together, and they therefore received one dividend. It would have been possible to make the adult individual the basic unit of participation, but that was not what had been decided. Once given clear rights of resource tenure, economic incentives flowed in ways that encouraged communities to resolve problems for themselves.

At the request of the Masoka community, CASS and WWF provided assistance in developing a village-based land use plan, which delineated arable and settlement land, to be protected by a game fence from wildlife land. CASS also undertook a household survey, which helped the community monitor demographic changes in Kanyurira over time. The community also established rules for the inclusion or exclusion of potential new settlers.

Kanyurira villagers have aggressively defended their rights in the face of possible interference from the local authority. When it had developed its land use plan, the community charged its councilor and its Wildlife Committee Chairperson to take the plan to the District Council for approval with these words: “Tell them that these are our animals, and these are our plans. We will not accept any changes imposed by others.” The understanding and enforcement of accountability- of council to community and community leadership to their membership- is central to the success of CAMPFIRE in Kanyurira so far.

It is interesting to note how Kanyurira allocates natural resources benefits variably over time. In years when the crop harvest is bad, benefits are allocated to households as cash dividends, while in good years they have been invested in social infrastructure and production activities. One of the district’s- and the Ministry of Local Government’s objections to paying cash dividends is that household heads (men) may waste the funds on beer, and nullify any development benefit. In fact, community decision making has been very strategic, using resources from natural resources to assure food security in times of drought and to promote development in good harvest years, a truly complimentary land use.

As the community members have a vested interest now in conserving their wildlife, they have rapidly learned how off take quotas are set, and also how the safari operators run their business. Many of the safari operator's staff are community members, so the village is well informed of all the hunters' activities. The professional hunter for his part works closely with the village natural resources committee and pays respect to traditional leaders.

FACTORS TO ACHIEVING BIODIVERSITY CONSERVATION

To reduce desertification and score success in biodiversity conservation, it is important that land tenure and land use rights are clarified before people can be expected to adopt sustainable resource management methods and invest labour and money in natural resources. It is agreeable that land tenure systems are rudimentary for securing enduring, self-supporting and sustainable development. The CAMPFIRE Programme in Zimbabwe recognized the inappropriate tenure arrangements identified by the Biodiversity Convention as one of the major causes of desertification and sort to reverse the situation.

A national Land Tenure Commission in 1994 reviewed, among other things, the land tenure status of the communal lands. It said:

"The Commission concluded that the CAMPFIRE programme is a qualified success and demonstrates probably the most important recommendation of the Commission. That is, rural communities can own and utilize resources effectively and sustainably provided there are clear benefits to the community and that the community is empowered through local level institutions (Govt. of Zimbabwe, 1994)".

This is a major achievement that CAMPFIRE anticipated. The households in these areas were given some form of title to their arable land. The programme secured proprietorship of the biodiversity to rural communities by transforming communal tenurial systems into common property rights management regimes. This was accomplished by the amendment of the Parks and Wildlife Act of 1982, which delegates proprietorship and responsibility to Rural District Councils willing and capable of managing natural resources in their areas of jurisdiction. This status empowered the Rural District Councils subject to quota restrictions imposed by the government to determine schemes of utilization for their wildlife, set up their own enterprises or enter into contracts with private organizations for this purpose, receive all revenues directly and disburse these revenues at their own discretion.

In addition, a Transitional Development Plan was released by the Government in 1982 to create a democratic and egalitarian society. This was done through " an

acceptable fair distribution of land ownership and use which included wildlife.” This was done as the government realized that if wildlife remained state property, wild animals would remain nothing but a nuisance and competitor for scarce resources for livestock.

Through the CAMPFIRE Programme, efforts are also being made to secure the right to use mineral resources. Communities in Mutoko district in the northern part of the country have indicated their willingness to utilize the abundant granite resources along CAMPFIRE principles. Use of minerals is presently inhibited by the Mines and Minerals Act, which should be amended if communities are to realize full benefits from their mineral resource base.

The CAMPFIRE Programme has demonstrated that successful conservation depends upon full rights and control over lands, territories and resources. The communities in CAMPFIRE-implementing districts have the right of access to natural resources such as grazing for livestock, sand, wildlife, water, thatch grass, mopane worms, firewood and building materials. Secure proprietorship has been of vital importance in ensuring that individuals and communities use these natural resources in a sustainable manner. Communities are now able to make decisions and are better placed to conserve them.

As stated by the 1992 Charter of the Indigenous Tribal Peoples of the Tropical Forests “the best guarantee of the conservation of biodiversity is that those who promote it should uphold our rights to the use, administration, management and control of our territories. We assert that guardianship of the different ecosystems should be entrusted to us, indigenous peoples, given that we have inhabited them for thousands of years and upon which our very survival depends.”

Community Participation

The overall goal of integrating conservation and sustainable development is to conserve biological diversity in which specific project activities are focused on people and changing human behaviour. There is need for local participation where people know what they are participating in, who is participating and how and when to participate and for what. Clearly local participation has become indispensable in CAMPFIRE as a vehicle to conservation and sustainable use of natural resources. Communities in CAMPFIRE districts are participating in stakeholder analysis, determining land use, CAMPFIRE personnel administration, resource monitoring and management and community project implementation.

Key principles of CAMPFIRE according to Rowan Martin (1996) were summarized as follows:

- For rural communities to appreciate natural resources, benefits and appropriate incentives had to be established;
- Exploitation of natural resources must involve local communities through effective participatory mechanisms;
- Appropriate democratic institutions must be put in place through which locals can participate;
- Capacity building through appropriate demand driven training should be pursued to enhance local empowerment;
- A decentralized approach to management had to be pursued and this required a friendly policy environment

CAMPFIRE's principle of sustainable utilization of wildlife depends on quota setting where local communities participate. Quotas on various species are set by local people with technical inputs from the Department of National Parks and Wildlife Management and the World Wide Fund For Nature (WWF). The communities utilize their knowledge on movement of wildlife, their habitat in order to determine numbers. Technical officers assist rural communities with information on wildlife breeding rates, male/female ratios and quality of trophies. The breakdown of Hurungwe Rural District Council Quota for 1995 illustrates the range of species that were hunted. Elephants fetch up to US\$10 000 in trophy hunting.

In terms of marketing, CAMPFIRE Rural District Councils have improved their marketing skills. At the start of CAMPFIRE in 1989 districts such as Guruve and Nyaminyami earned 10 times less than they currently earn.

There has been no radical change in quotas, but the locals have been able to improve their marketing and hence increasing earnings from trophy hunting. Due to improved skills in marketing, districts are pushing up prices for their quotas.

By increasing revenues without drastically increasing quotas, the local communities are improving their economic returns while ensuring conservation of various species. This is the very basis of sustainable development.

The CAMPFIRE programme emphasizes the formation and development of democratic institutions from the household level to the village, the ward and district levels. In the Zimbabwean context a village has up to one hundred households while a ward formed of six villages has about six hundred households. A district will have any number of wards and population varies. Local people elect their CAMPFIRE or natural resources committees at the various levels. These committees are a fusion of civic and traditional structures, which makes them very inclusive. The committees represent the increases of the local community and to ensure that they perform their tasks efficiently, they are given

training in leadership skills, book-keeping and project management. The facilitators are from both government and non-governmental organisations.

The importance of democratic institutions is that decision-making becomes legitimate and locals are free to change their leadership.

Since the inception of the CAMPFIRE Programme, the Rural District Councils which have dramatically increased from two in 1989 to 49 in 2002, there have been various investments from CAMPFIRE funds.

BOX 1: CHUNDU FOLK ARE PUTTING THE PRESSURE ON POACHERS

By Johnson Siamachira

VILLAGE vigilantes in the Chundu communal lands, Hurungwe, are slowly curbing poaching, to the benefit of rural development in this vast remote area.

“The villagers’ efforts to rein-in poachers have been succeeding because of co-operation among the people,” says Boyeed Mashapure, the Chundu secretary for the natural resources management committee.

So far, the Chundu vigilante activities have far outpaced similar anti-poaching actions by the police and the National Parks and Wildlife Management rangers.

A natural resources management co-ordinator for the Hurungwe Rural District Council’s CAMPFIRE project says groups like this, which are entirely community-based and self-funded, could answer the Government’s call in curbing poaching in wildlife infested areas, such as Hurungwe.

This community participation is one among the country’s conservation efforts and we are happy to see it pay dividends, said Mashapure.

The vigilantes are enforcing anti-poaching by-laws passed by the district natural resources management committee and the rural district council.

Before the introduction of the CAMPFIRE programme in the district, poaching was rife in an area where agriculture meets resistance because of the poor soils, rugged terrain characteristic of most Zimbabwean communal lands.

“It was disheartening to find that villagers had no say in natural resources. When they reported cases of massive poaching to the police, there was often no action,” says the natural resources management committee secretary.

Some wild animals like elephant, wild pig, hyena and baboon continue to be a menace. They foray out of the woodlands and destroy crops or kill domestic animals belonging to the smallholder farmers, villagers say.

As a result, many of the people initially did not understand why the animals had to be protected. And the Government had problems in educating and convincing them on this point.

However, separate programmes to educate villagers on wildlife conservation have been undertaken by the local authority and CAMPFIRE Service Providers.

And Chundu's heavy emphasis on a wildlife-based economy has generated feed back from surrounding villagers. Communities say conservation must allow for human development, giving villagers room to prosper.

These people are seeking a symbiosis between them and their ancient enemies, wild animals.

The country's highly regarded CAMPFIRE Programme, which encourages locally controlled eco-tourism and hunting on communal land, is targeted at conserving both rural communities and game.

Rural villagers in arid marginal areas, where wildlife management makes more economic and environmental sense than cattle farming, are turning to game as a source of income.

Money is derived from trophy hunting, game viewing and photographic safaris.

This unusual conservation and sustainable rural development experiment currently covers 49 of the country's 57 administrative districts.

In CAMPFIRE, projects are run by elected local communities and district councils in a democratic way and with the belief that local people should receive the benefits of their natural resources, like in Hurungwe.

"It (CAMPFIRE) is about empowerment and access to resources," says Ivan Bond, a resource economist with the World Wide Fund For Nature's Southern Africa Regional Office, based in Harare, Zimbabwe.

He also says: "Where you put a value on natural resources, conservation measures can succeed. Where there is no value, natural resources disappear." He cites the endangered rhino, whose numbers had dwindled in the last few years, despite—or rather because of—a ban on hunting. Villagers gain nothing from preserving rhinos.

He says for poaching to be reduced, benefits must be greater than the costs incurred. In fact, benefits from natural resources, such as wildlife, must be competitive with alternative uses of that land.

“Money from wild animals, for example, should be more than that from cash crops like cotton.”

Every year, the people, in consultation with the Government, set the number of animals that can be shot (quotas). Local “producer” communities benefit from game meat and from selling sport hunting concessions to commercial safari operators.

Now, some districts have gone into joint ventures with other operators and diversified into non-hunting safaris.

“When we talk about empowering rural communities, it’s not just about money,” said Bond. “It’s also about development local skills and institutions to manage natural resources.....CAMPFIRE stimulates a lot of development activities.”

But the delicate balance between national conservation efforts and local self-direction has been put to test in spontaneous land settlements in the Mayamba area of Chundu. Some families squatting there say they are being deprived of CAMPFIRE dividends. This is a threat to anti-poaching and the whole programme as it disturbs hunting concessions. The people allegedly poach and destroy other resources, such as trees, and are much resented by long-standing residents.

“The choice,” says Dr Russel Taylor, also of WWF-SARPRO “is between losing a few individuals or risk losing them all. The reality is that if hunting is not conducted in an organised and controlled way, with benefits going to the local people, it would happen in the form of poaching.”

While CAMPFIRE is not a quick solution to community-based natural resources management, especially wildlife conservation, environmental ills and rural development, it has developed into a role model for environmental conservation in Africa.

Local Manpower Development

In all the districts, there is a process of training local manpower as game guards, scouts, problem animal reporters and bookkeepers. This is to ensure that the locals will look after their own resources. Skills also ensure sustainability when donor support is withdrawn. There has also been strengthening of women’s clubs and youths’ projects.

Infrastructure Development

All CAMPFIRE districts have embarked on construction of schools, clinics, water points and roads. These projects are selected by the rural communities

themselves on a demand driven basis. The projects have other spin –off benefits in the form of local employment.

This case study can only summarise the investments from CAMPFIRE funds, but the important point to make is that the investment projects represent choices that the local people make in order to improve their living standards. The chosen projects also represent a firm commitment by locals that can take their destiny in their own hands.

The areas where these projects are located are remote and central government extension services would not adequately cover these areas. In terms of capacity building, the training that communities receive reinforces local empowerment, which is crucial to sustainable communities. It is training they demand and which is relevant to their daily routine work.

Community Self-Regulation In Natural Resource Management/Legal Instruments

A fundamental requirement of an effective institution is a set of rules that establishes an authority whose legitimacy is recognized and accepted by those governed and by the State. Communities in CAMPFIRE implementing districts were assisted in drafting natural resources legal instruments that are being used in biodiversity conservation. The by-laws such as those in Bulilimamangwe district regulate the use of wildlife, cutting of trees, harvesting of mopane worms, harvesting of thatch grass and collection of ostrich eggs. The driving force being the fact that communities realized that if unchecked these factors could contribute towards land desertification.

Defined times for all activities have been set by communities. In one of the CAMPFIRE wards local women were taken to task for collecting thatch grass before the stipulated time. A community meeting was convened with the specific intent to mete out justice to the offenders. Community control also means that no outsider can exploit their natural resources without permission.

When outsiders who generally loot are blocked from wantonly exploiting natural resources, then the communities are in a better position to conserve, plan and redistribute these resources at a relative equal term. The extension workers who service the district were in the past year stopped from collecting firewood in truck loads to markets outside the beneficiary wards because communities were not gaining anything from the venture. The issue is that when communities decide to put policies, rules and regulations governing natural resources management utilization, they would have reached high organizational skills and consciousness of the value of their natural resources. Community self-regulation is indeed the

most effective way of controlling natural resource use, according to a study conducted by the Centre of Applied Social Sciences at the University of Zimbabwe.

Monitoring, Evaluation and Research

Natural resource inventories with biological and ecological characteristics, human conditions and baseline data is fundamental in monitoring and evaluating biodiversity trends. The CAMPFIRE districts in the arid and semi-arid areas of the country have, with the assistance of experts in the Department of Natural Resources and Forestry Commission developed and documented resource inventories. Communities that have oral inventories are being encouraged to document them with the purpose of noting changes that occur in the environment. The basic information provides the foundation for project monitoring and evaluation and a framework for management decisions.

In monitoring the CAMPFIRE Programme, a Process Oriented Monitoring System (POMS) was instituted in the implementing districts. This was carried out on a quarterly and half yearly basis by the Zimbabwe Trust Monitoring Department in conjunction with the local authorities and communities. Communities participate by answering precisely defined questions tabulated in survey sheets. These relate to the procedural functioning of the natural resource management institutions and their management capacities, community participation, natural resources management and Problem Animal Control Reporting systems where applicable.

National and International Trade and Markets

Southern African countries have few development opportunities. Though they have envisaged a growing tourism industry, there are numerous problems which they have to contend with such as high rate of crime, inadequate essential services, lack of security, lack of infrastructure and lack of financial resources. In this instance ecotourism will remain a "pie in the sky".

In addition, rural communities cannot make a decent living out of the arid land, some of which is largely infested by tsetse flies. Therefore, they have to resort to wildlife species and other natural resources found in their areas. If wild animals can be marketed regionally, nationally and internationally, southern Africa can economically compete with developed nations, which have large livestock populations.

For this situation to prevail international policy must be conducive to biodiversity conservation. Institution such as the Committee on Trade and Environment can contribute towards this goal by identifying trade policy actions which can enhance participation in world trade of developing countries and at the same time promote environmental protection in the interest of sustainability.

CAMPFIRE communities will benefit tremendously from the broadening of market access issues related to natural resources which could include wildlife products and by products such as marula butter and puree, tamarind fruit, silkworms, handicrafts such as ilala, sisal basketry and wood carvings, medicinal herbs, essential oils and mushrooms.

Cultural Factors and Intellectual Property Rights

Trade related issues and violation of intellectual property rights by developed nations is of major concern to southern African States. Communities have been relegated to “exotic footnotes in history” through failure to recognize the meticulous role of their traditions, indigenous and local knowledge. Cultural factors such as respect for traditions and religious dictates influence the way in which people manage their natural resources.

It is important to note that the basis of knowledge, norms and values of the local people are incorporated in the environmental planning and management processes and given high status. Further, cultural and intellectual property rights are central to their right of self-determination.

Although traditional leaders have worked closely with medical researchers, legislators, policy and wildlife managers, their intellect is not acknowledged. The negative attitudes adopted by the World Trade Organisation should be changed, as it does not foster positive trade relations. Positive attitudes in trade intellectual property rights can have a far-reaching impact on the connection between trade and environment. All creativity and innovation regardless of where it emanates from should be recognized. Presently only the North’s industrialized innovations are worth of protection. GATT only recognizes individual rights and this does not augur well with indigenous communities particularly considering that information is sourced from collective entities such as villages. The North’s definition on innovation should be broadened beyond individual rights. Communities should have legal protection against exploitation of their indigenous knowledge and resources. The indigenous communities must receive just compensation and equitable benefits from the use of this knowledge.

Effecting International Treaties and Conventions

Effecting the provisions of International Treaties and Conventions to which most governments in southern Africa are party, will undoubtedly enhance biodiversity conservation and combat desertification in these semi-arid and arid areas. It is essential that all environment related conventions be interpreted in domestic legislation within a short period following the ratification date. In cases where domestic legislation does not conform with international laws it is necessary that there be a change or new laws introduced. The inhibiting factor is that countries are reluctant to cede any of their sovereign rights. It is crucial however, for countries to realize that environmental issues transcend national boundaries. Countries, which are party to International Conventions, must think “globally” and act “locally”.

After deliberation at international and national level, it is imperative that communities, who after all are at the center of environmental issues, are involved. Provisions of these Conventions should be communicated to the local people through workshops, seminars and meetings. More often than not, deliberations are never communicated to the communities. On the part of agencies involved in institution building there is need to concentrate on capacitating ordinary citizens in all aspects of the environment and not just leadership. Training should be focused at village and not always at ward and district level. This, however, calls for financial and human resources commitment by government and local authorities as well as the NGOs realization of the need to go that far-village level.

Carrying the environmental message should not be the monopoly of the State. The scientific, technological and academic society should be part of the process and information should be disseminated across the board.

Technical assistance must be consistently on hand to collect, process data and disseminate knowledge gained. This sector is capable of exerting pressure on policy makers.

Academic institutions such as universities should have the capacity to research in order to bring about awareness on environmental concerns. Environmental issues should not be presented in abstract but should reflect the immediate needs of the local people. More often than not, researches tend to be too academic and leave no room for interpretation nor use by local communities who are at the center of biodiversity conservation.

Additionally, institutions with Conventions must have different but complimentary roles that will assist in attaining goals. These management institutions must be given the mandate and procedural guidelines to operate effectively.

Far-reaching building regulations are a prerequisite. The basis of these lies in creating a conducive atmosphere where concerned parties can be engaged in dialogue. It is a long process but if all stakeholders are involved, implementation of the legal instruments becomes a lot easier. Furthermore, a body with legal power should have enforcement powers. It will be futile to have a lower institution at whatever level instituting legal proceedings against an all too powerful body.

The CAMPFIRE Programme has had some impact on the rest of southern Africa. Other countries have shown interest in the programme, and donor agencies have been funding study tours for others to review the CAMPFIRE experience. However, whilst most countries and donors have little trouble accepting the basic approach, many balk at encouraging the consumptive use of wildlife, harvesting value for communities from the animals around them. Donors, in particular, are sensitive to the wishes of environmental groups in their home constituencies and are unwilling to be seen supporting sport hunting or cropping of wildlife. They are especially sensitive about Zimbabwe's policy of hunting elephant populations. Because of this, the CAMPFIRE programme supported the establishment of the Africa Resources Trust, a sister organization to the Zimbabwe Trust, whose mission is to protect CAMPFIRE's wildlife markets. While defending the killing of elephants may seem a difficult task, the fundamental issue is the conservation philosophy, which underpins it, sustainable use by local communities.

Although conservationists worldwide are happy to support the concept of sustainable use of natural resources, when those resources concern "charismatic mega fauna", like elephants and rhinos, they are remarkably vulnerable to the animal rights, and protectionist lobbies. Zimbabwe has learned, and CAMPFIRE is in frontline, in practice they will not risk alienating some of their membership. Killing of animals is not a pretty sight to watch on television in an urban apartment, and the visual media dominate the environmental propaganda stage.

Maybe the world would be a better place if rich hunters did not get satisfaction from killing wildlife. However, the key issue is that rural communities will use their land as they judge necessary and wildlife cannot compliment mainstream agriculture if it cannot pay its way. It will be left to the State to pay for its protection and in Africa they lack the funds for this, so wildlife may end up subsisting in isolated protected "islands", which over time are unlikely to survive. If policies do not support decentralization of wildlife utilization and full marketing options are closed then cash strapped African governments will depend on the donor dollar. If that occurs the incentive for rural pastoralists to manage for biodiversity will default to monospecies development alternatives. Without approaches like CAMPFIRE the trajectory towards diminished biodiversity is obvious.

BOX 2: Elephant population balloons out of control

ZAMBEZI VALLEY—somewhere in the remote parts of Binga in the sweltering heat of the Zambezi Valley, 82 year old Langson Siangola's face contorts with pain as he recalls how elephants recently trampled three of his close relatives to death.

Siangola, a renowned traditional healer in the area, is at a loss for words. The elephants have become a real danger to his people, he says, even more than common diseases.

"Even as a traditional healer I do not have the solution to the rampaging menace of the elephants," Siangola told a group of visiting journalists. "In the past, we were not threatened by elephants but now the population has increased so much and we now live in fear every day."

The plight of the Siangola community is common to those who live adjacent to wildlife sanctuaries in Zimbabwe.

Asked on what should be done to curb the threat of the animals, the communities say they want the elephant population to be culled to a manageable number. "We feel the number of elephants should be reduced so that we can be able to live together peacefully because if we plant our crops, the elephants come and destroy them and we will not have anything to harvest," said one villager. That is the battle that Zimbabwe is fighting with the international community to be allowed to at least dispose some of its excess elephant population. But then Zimbabwe's position is precarious because it is bound by the Convention on International Trade in Endangered Species (CITES) regulations that oppose culling of elephants for the international ivory market.

Man has for long used his powers and with weapons to dominate every other animal and the environment, but in the Zambezi Valley he has met his match in the elephant. The huge animal has become the most dominant threat not only to man but also to the environment within and outside the national parks. Environmental degradation caused by elephants was all too evident to see during a recent tour of

the country's national parks in the Zambezi Valley during a tour of then country by Kenyan and local journalists. The southern African countries of Zimbabwe, Botswana and Namibia who have successfully harvested and sold the so-called "managed ivory" played host to most Kenyan journalists to impress them on how communities co-existed with animals and also show the Kenyans how elephants have become a threat to society.

Kenya has become one of the most vocal critics against the sale of ivory by the three southern African countries and has persistently objected to the desisting of the African elephant from a highly endangered species to that whose population can be managed. The last CITES meeting in Gigiri, Kenya, in April 2000, saw the Nairobi government supporting a total ban on the controlled sale of ivory. It was joined by western environmental pressure groups such as Green Peace. South Africa, which also wants to sell some of its ivory stockpiles, joined its neighbours- Botswana, Namibia and Zimbabwe- and fought a bruising battle to keep the elephant in Appendix 2 to allow for the monitored trade." We lobbied so passionately for our government's position because we had seen what had happened to the black rhino and feared that this would happen to the elephant if ivory trade is allowed," said James Wodera, a senior reporter with The People newspaper in Nairobi.

"But having visited Zimbabwe and seen for ourselves the level of environmental damage caused by the elephant, we have been converted. We full support Zimbabwe and its southern African neighbours that they should be allowed to fully utilize this resource by engaging in controlled ivory trade."

Kenya has an elephant population of 30 000, about a third of Zimbabwe's 85 000. Zimbabwe's elephant annual growth rate is five per cent meaning that about 4 200 elephants are born every year.

"I think you will appreciate from the figures that this is not only unsustainable but for our future generations who would want to benefit from this heritage, the future looks gloomy for them," Environment and Tourism Minister Francis Nhema, told the journalists. He said it was surprising that there were western pressure groups lobbying against controlled sales of ivory whose argument was that the African elephant was an endangered species but who at the same time also lobbied against the destruction of the environment. "The situation is unfortunate because by continuously keeping the high number of elephants, we are destroying the environment we yearn to protect and endangering the same elephant that we seek to preserve," Nhema said.

In the huge Mana Pools National Park, the elephant population has virtually destroyed the vegetation and all the other animals are now in severe danger

because of the lack of food to graze. The park has 3 000 elephants but can only sustain a population of 700. Hwange, the country's largest national park is currently home to 45 000 elephants when it should sustain only 15 000 and the result has been environmental destruction of such proportions that the lives of other animals such as the black rhino, one of the world's most endangered species, are now under threat.

So for the people like Siangola in the far-flung areas like Binga, international politics continue to frustrate their efforts to co-exist in harmony with nature, particularly elephants, in the villages bordering national parks.

CONSTRAINTS

While CAMPFIRE has undoubtedly done so much for rural communities, some key issues have emerged in the implementation of the programme, which requires serious attention in order to enhance the practice of benefit sharing. One that easily comes to mind is the problem with regards to tenure. Communal people do not own land and hence their property rights are ill-defined. While they have usufruct rights, the state remains the owner of the land and this tends to water down the zeal of communities in making effective decisions. It also has to be noted that the wards and villages are political entities whose geographical boundaries are quite vague. And since the wards and villages cannot sue or be sued, they have to depend on the Rural District Council for technical know-how and legal contracts with safari operators. There are discussions in Zimbabwe right now to assess mechanisms of tenure that can deal with total empowerment of communities and instill a sense of ownership over the resources.

Policy related laws affecting holistic utilization of resources are also a constraint to the broadening of CAMPFIRE. While there is Appropriate Authority for wildlife, the same has not happened for other potential money spinning resources like minerals. The limitation of AA to wildlife has been one of the major criticisms of CAMPFIRE. Thus the current thrust of the Biodiversity Support Action Programme (BSAP) and the District Environmental Action Programme (DEAP) are aimed at leading with natural resources management in a holistic manner. These approaches will improve CAMPFIRE because more rural communities will be involved in CAMPFIRE even if they do not have big game.

RDCs, government and other policy makers should give the subject full attention so that the CAMPFIRE programme will be able to diversify its operations into mining effectively. A stakeholder analysis of mining activities will indicate that a lot can be achieved if concessions are made by government to allow communities to benefit meaningfully from the non-renewable mining resources.

There is also need to be cautious and appreciate the constraints that may exist in handling mining which is a much more technical area. We also need to look into new opportunities for collaboration with other agencies outside the current portfolio of Service Providers so that the programme can play a meaningful role in supporting mining activities. There is need for government to appoint RDCs and CAMPFIRE activists in Mining Boards so that decisions made on mining activities are promotional of the programme's efforts.

Also problematic is the question of whether communities should be allowed cash dividend or development of infrastructural projects. Some analysts feel that cash equations are important bundles of incentives while others opt for projects. What is significant is that communities make informed choices and that RDCs should act as facilitators. Sometimes the RDC sees itself as the owner of Appropriate Authority and would like the entire district to benefit.

The definition of community and boundaries has also raised problems in deciding who should benefit. Most Wards and Villages that meet the costs of living with wildlife resources would like the principle of exclusion to prevail; otherwise there would be the problem of "open access" or "free riding". Exclusion would ensure that the communities can identify themselves as custodians of natural resources. In the Zambezi Valley for example, local people are against the new settlers who are perceived as intruders. CAMPFIRE is based on the principle that the smaller the unit of proprietorship the greater the satisfaction that stakeholders derive. In Matobo, another area in the Southern part of Zimbabwe, women are working out strategies of how they can stop direct harvestings of mopane worms by people from rural areas so that they can maximize their gains.

LESSONS LEARNT FROM CAMPFIRE

- Programmes which espouse community-based conservation which do not have a firm footing in national legislation are flawed. Projects, which are not set within an integrated programmatic policy framework, provide a poor environment for sound institutional development. Half hearted devolution of resource tenure will lead to co-option of communities rather than community empowerment,
- There is need for dynamic and co-ordinated local agencies, staffed with people committed to the country and the programme. Dedicated and sensitive implementation facilitates a well designed programme's successful outcome;

- Reconciliation of traditional and statutory authority at the local level is an local governance issue which impacts directly on common property natural resource management;
- Flexible and co-ordinated donor support, which nurtures good policy and an adaptive programmatic approach is essential;
- Conservation issues can not be isolated from community felt needs and problems because “protection alone does not fit the circumstances of rural communities who must contend with and defend their livelihoods from animals and other natural resources;
- To attain conservation goals, there should be inter-institutional co-operation both vertically (from national down to local community level) and horizontal (across disciplines). Full inter-institutional co-operation is called for between the state, community and non-governmental organizations. The whole institutional machinery must be set in motion in order to supplement or modify regulations or to respond to all environmental concerns.
- In semi arid and arid peripheral zones of southern Africa trade in animal products and other natural resources is not only essential to conservation, it strives to satisfy basic human needs. International and national policies on marketing should therefore be conducive to facilitate fair trade between nations. There should be open, equitable and non-discriminatory multi-lateral trading systems and environmental protection.
- If environmental plans are to be effective, they should prioritise indigenous knowledge, norms and values.
- An integrated approach is required considering the fact that desertification is caused by complex interactions between physical, biological, political, social, cultural and economic factors.

CONCLUSION

The drive behind the promotion of community-based conservation prevalent today is the acknowledged failure of state driven approaches, combined with an awareness of the over-looked strengths of community-based institutions, most of which have a customary heritage.

CAMPFIRE has not looked back since it was launched because it has been popular and effective in establishing production incentives. That does not mean the future is very rosy, because the issues of community organization, land tenure, land use planning, and effective management still have to be resolved. Compared to the older policy though, local people are involved, debating the issues themselves, and are developing their own capabilities to tackle these issues.

Communal resource management approaches will still be challenged by several dynamics:

- Gender issues are very challenging as customarily most communities are patriarchal, with the male as the “household head”. Community-based decision-making favours men. How can statutory and customary approaches fuse into a “modern” system of resource governance?
- Social stratification and differentiation- whereas customary approaches put a high value on social consensus, market based systems encourage individual initiative to accumulate personal wealth, at the cost of equity considerations. Elites, both modern and traditional, tend to dominate at all levels. Why would large livestock owners support a wildlife common, which threatens to control their access to forage resources? (Metcalf, 1995)
- In the management of a common resource it is institutionally imperative to ensure that the issues of exclusivity (who can use what) and equity (how far do individuals get a reasonable and fair share on their contribution to a collective undertaking) are fully addressed.

There is no doubt that as a programme, CAMPFIRE has had a positive impact to communities and rural development in terms of providing for mechanisms for effective conservation and benefit sharing. Numerous infrastructural projects, which have sprung up, in communal areas of Zimbabwe are a good testimony of the programme’s achievements.

But, like every programme designed and managed by a human hand, the programme is not without its own problems. Key among them is the need to re-define community boundaries, diversify operations, enhance tenure of resources and convince international skeptics who are still opposed to the idea of hunting and consumptive use of natural resources as a method of conservation.

These are some of the challenges, which should undoubtedly occupy the minds of academics, NGOs, conservationists and policy makers as they seek to explore new paths, to enhance communication, unity, participation and benefit sharing in natural resources management programmes in this new millennium.

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