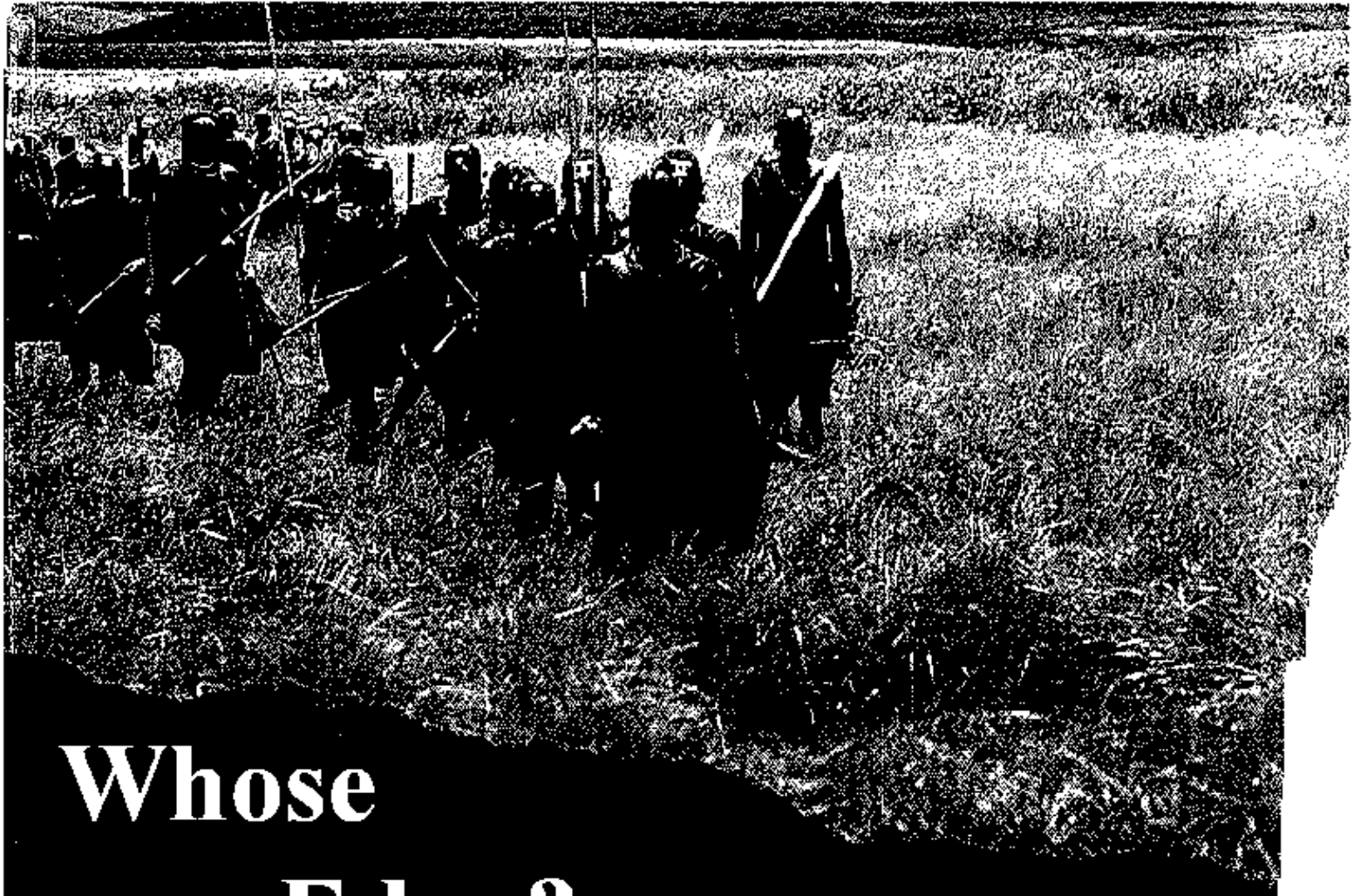

# Whose Eden?

## An Overview of Community Approaches to Wildlife Management

IIED
INTERNATIONAL INSTITUTE FOR ENVIRONMENT AND DEVELOPMENT

IIED

International Institute for Environment and Development

# Whose Eden?

## An Overview of Community Approaches to Wildlife Management

*A report to the Overseas Development Administration of the British Government*

July 1994

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## African Perceptions

We are honest people who are keepers of the wildlife. We do not like poaching and we have been keeping the animals here a long time for the government, but we receive no benefit for this service. If I beg help for building a clinic or grading our road, the government refuses. Yet, this is the area where both the government and private individuals benefit from wildlife. Tourists come here to enjoy the lodges and to view wildlife. Safari companies come here to kill animals and make money. We are forgotten.

Hon. Chief G. Malama, September 1983
(Quoted in Dalal-Clayton, 1984)

The way we looked after animals in the past was different from today. A person could never kill an animal without informing the chief. A person who killed an animal would give the hind legs, rib cage, and internal organs to the chief. And no one but the chief could hunt eland, which was hunted only once a year. Anyone who killed an eland committed an offence. Nowadays it is different. Anyone can kill an eland. Long ago this was not so.

Interview with Chief Shikabeta
Traditional ruler, Luano Valley, Zambia
(Lewis and Carter, 1993)

When the whites first arrived in this area, they thought we were wild animals and chased us into the forest. Now that they have found out that we are people they are chasing us out again.

Okiek hunter-gatherer, Mau Forest, Kenya, 1992




***How rhinos are incited to charge***

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## Abbreviations and Acronyms

| | |
|---|---|
| ADMADE | Administrative Management Design for Game Management Areas (Zambia) |
| APOS | Associate Professional Officer Scheme (UK ODA) |
| AWF | African Wildlife Foundation |
| AWHDA | African Wildlife Husbandry Development Association (Canadian NGO) |
| CAMPFIRE | Communal Areas Management Programme for Indigenous Resources (Zimbabwe) |
| CASS | Centre for Applied Social Sciences (Zimbabwe) |
| CDU | Community Development Unit (Zambia) |
| CIDA | Canadian International Development Agency |
| COBRA | Conservation of Biodiversity Resource Areas project (Kenya) |
| CWM | Community Wildlife Management |
| CWS | Community Wildlife Service Unit (Kenya) |
| DNPWLM | Department of National Parks and Wildlife Management (Zimbabwe) |
| EC | European Community |
| EPC | Environmental Protection Council (Ghana) |
| GMA | Game Management Area |
| GTZ | German Agency for Technical Co-operation |
| IIED | International Institute for Environment and Development |
| IUCN | International Union for Conservation of Nature and Natural Resources (The World Conservation Union) |
| IWC | International Whaling Commission |
| KWS | Kenya Wildlife Service |
| LIRDP | Luangwa Integrated Resource Development Project (Zambia) |
| MAB | Man and the Biosphere Programme (UNESCO) |
| MARP | Méthode Accélérée de Recherche Participative |
| NGO | Non-governmental Organisation |
| NORAD | Norwegian Agency for International Development |
| NPWS | National Parks and Wildlife Service (Zambia) |
| ODA | Overseas Development Administration |
| PRA | Participatory Rural Appraisal |
| SIDA | Swedish International Development Agency |
| SLNP | South Luangwa National Park (Zambia) |
| UNEP | United Nations Environment Programme |
| UNESCO | United Nations Educational, Social and Cultural Organisation |
| USAID | United States Agency for International Development |
| WCRF | Wildlife Conservation Revolving Fund (Zambia) |
| WEP | Wildlife Extension Project (Kenya) |
| WINDFALL | Wildlife Industries New Development for All project (Zimbabwe) |
| WMA | Wildlife Management Authority (Zambia) |
| WMS/A | Wildlife Management Sub-Authority (Zambia) |
| WMU | Wildlife Management Unit (Zambia) |
| WWF | World Wide Fund for Nature |
| ZWP | Zambia Wetlands Project |

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# Executive Summary

1. This report presents an overview of literature on community approaches to wildlife management. These approaches are analysed in two main groupings: **top-down and participatory**. The focus is mainly on experiences gained in Africa, with a few illustrative case studies drawn from outside the region.

2. Definitions are of crucial importance in the debate about wildlife management,[1] and it is stressed that approaches can only be assessed in relation to their particular interpretations of concepts such as 'conservation', 'preservation', 'management', 'community'[2] and 'participation'.[3]

3. The benefits provided by wildlife management are discussed in terms of **use and non-use values**. Use values comprise both traditional and non-traditional products harvested for consumptive use, and the various ecological functions provided by species and their habitats; non-use values consist of the value of wildlife as a cultural and heritage asset. It is emphasised that the costs of wildlife management to different stakeholders vary considerably depending on the approach adopted.

4. The classic approach to wildlife management is **top-down**, characterised by activities that include the establishment and expansion of protected areas, wildlife legislation enforcement and the assumption of ownership of wildlife resources by the state. Wildlife management initiatives share this approach with many other rural development initiatives in Africa, but have been slower to integrate local people into activities than initiatives in other sectors. Whilst this approach, where well supported, has ensured the survival of populations of certain species and ecosystems and contributed to the generation of foreign exchange earnings, it has often had a **critical impact on the food security and the livelihoods of local people.** Faced with a rapidly diminishing resource base, conflicts between local people and conservation authorities have escalated and law enforcement has become less practical and more costly. As human populations have grown, demands on remaining resources have increased, leading to environmental degradation and further conflict. This trend has, in turn, reinforced the protectionist argument, commonly advocated by natural scientists, often expatriates, that local people do not have the knowledge, the will or the training to undertake

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[1] For the purposes of this report, *wildlife* is defined as non-domesticated animals and plants which are used or valued in any way by people.

[2] The definition of *community* is rarely addressed explicitly in approaches which seek community involvement in wildlife management. This report discusses the concept in spatial, social, cultural and economic terms, laying stress on the diversity of interests that may exist within and between communities in social and economic spheres.

[3] In this report, the following definition of *participation* was found useful: '... empowering people to mobilize their own capacities, be social actors, rather than passive subjects, manage the resources, make decisions, and control the activities that affect their lives' (Cernea, 1985), but the term has many other interpretations - see later sections of text.

sustainable wildlife management. Too often projects have been drawn up as **'blueprints'** and communities viewed as homogenous, undifferentiated units.

5. Top-down approaches to the protection of wildlife have also entailed **high management costs for governments**, with the **majority of benefits accruing to external interests**. It has generally been assumed that the value of conserving wildlife is more than the costs it incurs and, as a result, top-down approaches have rarely been analysed rigorously to determine whether the benefits are greater than the costs.

6. Over the last 20 years there has been a growing realisation of the **importance of understanding the needs and perspectives of local people**, of interactive communication, and of strengthening local institutional capacity. This has led to the emergence of **participatory approaches** which aim to involve people in the process of wildlife management. However, participation is being interpreted and practised in many different ways. The range of different approaches is presented as a continuum from *passive* to *active* participation, and many initiatives have advocated different approaches at different stages.

7. **Passive participation approaches** are characterised by centralised decision-making and control, dominated by foreign and national technocrats, whilst the participation of local communities is limited to labour or the provision of information. Initiatives have been typified by compensation schemes, income-generating projects, and the substitution of modern methods and environmental education programmes for indigenous farming and management practices. Although such projects provide a **wider range of benefits to local people** than top-down approaches, examination of such schemes reveals that they have rarely been subjected to full cost-benefit analyses, undertaken from a community or broader perspective. Their ecological and socio-economic viability cannot therefore be guaranteed.

8. The majority of these schemes aim to **compensate local people for loss of access to natural resources by providing an alternative livelihood source**. By so doing, it is assumed that the economic incentive to exploit wildlife is removed. However, in practice, these schemes are usually carried out under the auspices of donor-funded projects which view local people as **passive beneficiaries**. Benefits are not always distributed equally, compensation is rarely proportionate to the amount of income foregone, and the services provided do not address sufficiently the needs of the people. As a result, it is not easy for a sense of ownership to develop, and local people do not feel committed to the upkeep and maintenance of infrastructure schemes. In addition, adoption of various income-generating schemes often fails owing to lack of markets. In some cases, schemes become so time-consuming and complicated that local people find it impossible to participate effectively.

9. Communities have often been regarded as homogenous entities, and insufficient attention is given to diversity in their make-up. This has led to problems of equity over access to resources and distribution of benefits. For example, the lack of success with some projects can be attributed to their **'gender-blind'** nature. Gender relations, resource ownership and management rights within a community are not always understood prior to the design and implementation of projects. However, in some cases projects fail because they segregate activities by gender and interfere with the community's relationship with a particular resource.

10. Rebuilding the relationship between conservation authorities and local people, after a history of policing and exclusion, has proved difficult and some governments have been unwilling to support participation, especially if seen as a threat to central authority. In the absence of additional incentives, farmers may be unwilling to adopt 'modern' resource management techniques, since adoption of these does not guarantee a secure livelihood. Numerous cases exist where **coercive methods rather than interactive dialogue** have been employed, whilst project managers continually underestimate the time, human resources and commitment necessary to re-build trusting relationships with communities.

11. In general, passive participation approaches still separate local communities from the wildlife resources they once owned and tend to **emphasise the powerlessness of local people** to affect what happens in protected areas. Under these circumstances, participation by local communities has frequently proved to be unsustainable and ineffective.

12. Over the last 10-15 years, various initiatives have been typified by more **active participation** which has sought to devolve power and responsibility for resource management to the community, and **local people have become involved more actively in the generation and distribution of benefits**. Examples of this approach include community game guard schemes and income-generating activities based on the needs of the local people. They are frequently centred on communal lands, rich in wildlife, around protected areas. These initiatives help communities to gain an even greater share of the benefits of wildlife management and may, for example, reduce poaching levels. However, in the absence of stable local institutions they can entail greater costs for the community.

13. **Institutional capacity-building at a local level is rarely addressed** and, in many areas, institutions remain undeveloped. Cases exist where local institutions are far from democratic and projects fail because the benefits are not distributed equitably. Problems also arise where a project has been initiated by high-level patronage without committed support from all government agencies concerned. If that patronage is subsequently removed, previously aggrieved parties may seek 'revenge', thus undermining the project. Some efforts continue to depend heavily on outside funding which stifles attempts to make management more self-supportive, whilst the government, in most cases, retains political and legislative control.

14. It is being recognised increasingly that a **community's rights to ownership and tenure of wildlife resources must be secured for sustainable wildlife management**. Whilst there have been attempts to provide an administrative and legislative framework conducive to guaranteeing such rights, this approach to wildlife management is still in its infancy. Some schemes have re-introduced consumptive and non-consumptive wildlife utilisation, which undoubtedly helps local people to appreciate the value of wildlife, increase household revenues and reduce poaching. But, **experience shows that bringing together management, ownership, tenure rights and the equitable distribution of costs and benefits is complicated**. Examples exist where local governments have been unwilling to devolve real responsibility and power to local communities, and to pass on the full amounts of revenue generated. This is hardly surprising, as central grants to local governments are declining, and wildlife revenue is one way of securing funds, particularly foreign exchange. Furthermore, schemes that use participatory processes for community empowerment can still fail where societies are highly stratified and conflicts have arisen between traditional authority and the

participatory process. **Short-term commitment to the process has not helped to propagate sustainable impacts.**

15. Failure to address the question of decentralised control also frustrates local attempts at land-use planning, especially around buffer zones where land rights are a key issue. Often, there is a **lack of legislation and the policy frameworks are inappropriate.** In an increasing number of African countries formulation processes for statute and policy include community input, but implementation falls short of expectation. Typically, short-term political interests, longer-term dynamics of bureaucracies, and the needs of stakeholders outside government are left out of the analysis.

16. In the literature reviewed, community wildlife management seems to be conceived almost wholly in the context of donor-funded projects, with a surprising lack of consideration of **community-led activities where planning and execution of wildlife management is driven by the community.** There is historical evidence that rural communities had sophisticated systems of natural-resource management which maintained biodiversity over thousands of years. In some areas such systems still operate. The elements of these systems include: strong linkages amongst members of communities and between communities; equitable patterns of resource access; means for negotiating and controlling access to natural resources between and among groups; clearly defined territories; low-cost mechanisms for conflict resolution; support for community management institutions from wider social, political and economic structures; and the assignment of ownership for the resources concerned. However, these management systems have weakened gradually, first under colonial government and then as a result of population growth, nationalisation of resources and commercialisation of the economy. With declining government administration capacity and ability to provide effective management of natural-resource use, local management systems are currently beginning to re-assert themselves in some areas.

17. The **comparative value of wildlife resources** to local people is of central importance in determining the options for community wildlife management. Where the value of wildlife is perceived to be high compared with alternative land uses, the chances that people will opt for community wildlife management are greater. The absolute value of the resource may be high or low in these cases, but the crucial determinant of whether communities engage in wildlife management is the social nature of the communities. Generally, communities in resource-poor areas tend to be less stratified, with stronger bonds of reciprocity between individuals and groups, than in resource-rich areas. Most examples of outside support for initiatives in community wildlife management have focused on over-exploited, resource-poor, communal lands, yet there can also be strong community support for involvement in wildlife management where resource values are high. Donor support in such situations may yield high returns in terms of sustainable management, but will need to be very clear about the definition of community and the nature of the stakeholders involved.

18. From the evidence reviewed this report concludes that **community wildlife management is likely to be sustainable ecologically, economically and socially only if wildlife management can be made sufficiently attractive to local people for them to adopt the practice as a long-term livelihood strategy.** This does not suggest that local communities

respond only to economic determinants, but that these are one amongst a complex set of factors that determine behaviour.

19. **Three broad principles** are proposed to guide action towards achieving community-led initiatives: recognition of **community rights to ownership** of wildlife resources; **building on formal and informal structures** that facilitate community participation in wildlife management; and operation of effective mechanisms for the **sharing of benefits** of wildlife resource management with communities.

20. Where **an organisation is already involved in wildlife conservation projects**, it is recommended that a review of the nature of community participation and management be undertaken in each case. Where it is decided to try and improve performance with respect to participation, the process of assessment and planning should involve the community to a high degree.

21. Where organisations decide to support on-going project activities, it is suggested that a **project evaluation** take place that considers the following:

- how far local community perspectives have been taken full account of in the conception, planning, design and implementation of the project;
- the nature and origin of 'baseline' information on ecological conditions and the effectiveness of the approach adopted in terms of ecological impact, assessed in both 'local' and 'natural science' terms;
- the extent to which legal, policy and administrative frameworks, from national to project level, enable or hinder genuine participation;
- the economic value of wildlife conservation to the community compared with alternative forms of natural-resource use, and whether markets for wildlife products exist and are accessible;
- whether local communities are empowered and enjoy full rights of ownership, management and control over wildlife resources;
- whether local institutions are entrusted with the management of wildlife resources, and the degree of transparency and accountability that is attained;
- how far the project encourages consumptive and non-consumptive wildlife utilisation and the equal distribution of benefits throughout the community.

22. Where organisations **are considering involvement in a wildlife conservation project**, it is recommended that a comprehensive **project appraisal** should include an assessment of the overall potential for community participation. The appraisal should be guided by the three broad principles noted in paragraph 19 above.

23. To promote effective community participation in sustainable wildlife management, organisations should ensure that:

- **appropriate participatory rural appraisals** are conducted to build up pictures of natural-resource endowments, the means by which they are managed, and the socio-economic make-up of communities; this work can also foster a process by which communities can work alongside facilitators through use of participatory inquiry to analyse, plan and act;

- **existing community institutions are analysed** to gauge the extent to which they are already managing wildlife resources; assess their capacity to provide for community representation in wider structures; and identify the mechanisms for the resolution of conflicts over wildlife resources within and between the community and state structures; and

- **formal structures are developed for the distribution of benefits** accruing from successful management of wildlife resources in a fully transparent and accountable manner.

24. Participatory community wildlife management is unlikely to be achieved by a 'traditional' emphasis on disbursing funds and showing measurable results. The constructive dialogue, joint analysis and participatory planning that are necessary run counter to this mode of investment and expenditure. It may be more important to facilitate a gradual release of funds only after a substantial period of consultation with and capacity strengthening of local groups and institutions.

25. Organisations could usefully **support the promotion of community management** of wildlife resources in the following areas:

- **Assistance in the development of national policy and legal frameworks** which support community wildlife tenure, equitable distribution of benefits, and local management structures. Support is needed for facilitation of national fora with widespread participation, advocacy, consultative processes and technical expertise.

  Organisations could provide support fora that facilitate dialogue between various stakeholders for the formulation of policies that take full account of local perspectives.

- **Support for the development and claiming by communities of legal rights** to make use of wildlife resources.

  Organisations could sponsor studies that reveal the extent to which legislation enables or inhibits community wildlife management, and what legislative provisions might be needed at national and local levels (e.g. by-laws) to clarify community rights.

- **Support for community institutions and community-oriented public bodies.** Assisting the institutionalisation of participatory approaches through support for the transformation of public agencies and NGOs into strategic, enabling institutions. This will require: a policy framework providing a clear role for local people in development; strong leadership committed to the task of developing organisational systems, capacities and norms; long-term financial commitment and flexible funding policies; negotiation between competing interests and perceptions; creative management to implement effectively; an organisational climate in which it is safe to experiment; and a flexible, integrated, field-based training programme in participatory inquiry, over a sustained period.

  Organisations could provide support for the training of a new cadre of staff whose task it is to liaise with communities, and allocate the resources necessary for effective implementation of their work. Organisations could also provide the means to identify local institutions and the role they play in wildlife management.

- **Building on indigenous systems of local knowledge, natural-resource use, and locally supported decision-making structures and initiatives.** Support for the application of methods of participatory inquiry for resource and land-use planning.

  Organisations could, for example, provide support for local-level planning exercises that take full account of local needs, perspectives, capacities, and aspirations.

- Providing for **programmes of human-resource development for extension staff, project personnel, community leaders, public institutions and individuals** that focus on awareness of rights and responsibilities, communication and analytical skills.

  Organisations could support training in: participatory approaches, conflict-resolution techniques, wildlife resource management and ecosystem dynamics, project management and financial accounting.

- Development of **new messages of community empowerment, rights and responsibilities.**

  Organisations could sponsor non-formal awareness-raising, and provide support for traditional specialists to record and disseminate valuable information they have on wildlife resources.

- **Promotion of collaboration between government (both local administrative and national departmental), NGOs and the private sector.**

  Organisational support could be provided so as to:

- promote devolution of planning and implementation of wildlife resource management to local people;
- build on the experience and expertise available outside the 'traditional' wildlife sector, particularly in the social science field;
- avoid creating dependence on external funding and setting up complex administrative structures which may collapse when support is withdrawn;
- avoid the relocation of people and denial of their rights of access to natural resources;
- generate long-term commitment by government and supporting agencies.

- **Establish procedures for, and remove bureaucratic constraints on, the equitable and effective distribution of benefits** amongst all community members. In the case of fully protected areas, promote equitable distribution of benefits from external subsidies.

  Organisations could support the design of distribution mechanisms, preferably based on existing community institutions, which are both legitimate and broadly accountable to a wide range of local interests.

- Effective **monitoring and evaluation incorporated into community wildlife projects**. This should be done with participating communities assisting in the collection and analysis of data. The information collected should be presented in ways that can be easily understood by the people who need to make use of it, and should help to identify any project weaknesses.

  Beyond the funding of monitoring and evaluation exercises themselves, one practical way organisations could support this is by the production of materials in local languages, with a view to sharing information with communities for their consideration and future action.

26. **Applied research** on a number of topics will be needed for the development of future initiatives that promote participatory community wildlife management. This research should be carried out with the **participation of local communities and national research institutions**. Topics for research are detailed below in a suggested order of priority:

1. **Field investigation of selected existing community wildlife initiatives** to test the conclusions of this overview, with a view to making recommendations for future direction by supporting agencies.

2. **The impact of human land use, including community wildlife management initiatives, on the wildlife resource and biodiversity.** This would involve collaborative investigation with local people to analyse ecosystems and define workable criteria and methods for monitoring environmental impacts.

3. **Economic analysis of wildlife utilisation compared with alternative resource uses** from the perspective of different stakeholders, incorporating various types

of benefits (use and non-use) and costs (including funds, labour, land, transaction costs, etc.).

4. The **evolution, recent changes and current situation of community livelihood-security strategies**, customary wildlife management systems and tenure regimes.

5. **Stakeholder analysis within and between communities** to identify the interests of different groups and individuals in different resources and seasons, and the recent history of changes in the interests of stakeholders.

6. The **extent to which women are affected by changes in rights of access to wildlife resources, and the role they traditionally play in wildlife resource management.**

7. **Legislation and policy impact analysis,** including: examples of success and failure of policy leading towards participatory community wildlife management; identification of the reasons why policies with apparent clear benefits to decision-makers fail to be implemented by the relevant actors; adaptation of formal tenure systems to provide tenure security to local groups.

8. **Analysis of the capacity to support community wildlife management of institutions, decision-making and conflict-resolution frameworks** and their linkages, both 'horizontal' (e.g. across government, local government, sector agencies, NGOs, academics, resource user groups, consumer groups, community groups, etc.) and 'vertical' (from international level to national, sub-national and local levels, individuals and marginal groups).

9. **Local-level resource assessment and land-use planning approaches.**

10. **Evaluation of the growing number of private agreements** by tour operators and game hunters with communities.

27. This **applied research would identify the range of conditions or 'best bet' options** in which community wildlife management might succeed. Guidelines could also be developed for future participation, policy, planning and associated capacity-strengthening processes for various levels and forms of community wildlife management.

~ 1 ~

# Introduction

## Background

The UK Overseas Development Administration has supported wildlife conservation and management initiatives, particularly in Africa, for many years. But this has been on an *ad hoc* basis. In the autumn of 1993, ODA began work on developing a Wildlife Strategy for Africa to guide its future support in this sector. To assist this process, IIED was requested in December 1993 to undertake a study on community approaches to wildlife management, with a focus on Africa. The terms of reference for this study are given in Annex I. Its main aims were to undertake a literature review, identify strengths and weaknesses of community wildlife projects, and suggest options for future ODA involvement in such schemes. IIED was requested to give particular emphasis to the social dimensions of community wildlife management.

The problems of past wildlife conservation efforts in Africa have been well documented in recent literature (Anderson and Grove, 1987a; West and Brechin, 1991; Brown and Wyckoff-Baird, 1992; Kiss, 1990; Lee, 1992; USAID, 1993). There is increasing acceptance that a major reason for project failure has been the top-down nature of the approaches adopted. During the last decade, a growing number of community-based initiatives have emerged in Africa and elsewhere. They have been based on the recognition that communities need to be instrumental in the conservation and management of their resources if initiatives are to have a greater chance of being sustainable and delivering success. ODA has recognised this trend and has provided support to various community-based projects in Africa.

## The Study

This study was undertaken by an interdisciplinary team and is based on a review of published and unpublished literature concerning projects, research programmes and experiences relating to community approaches to wildlife management, with a focus on Africa. During the study, contact was made with institutions and individuals in the UK and overseas (to the extent possible in the time available) who were known to be involved in community wildlife management.

## Some Problems

Documentary sources included project progress and evaluation reports, books, donor publications and reports, journal and newspaper articles, and technical papers in workshop proceedings. Several difficulties arose in their assimilation. Descriptions of a number of projects in different documents were found to be contradictory. Some project documents, though known to exist, were not available to the team or copies could not be obtained owing to their rarity. In one case, a request for access to evaluation reports was denied by a donor, presumably because the documents were critical or contained sensitive material.

Many of the documents reviewed contain progress reports. But there are few descriptions of the problems faced in implementation and/or of failures, and virtually no social analysis.

The majority of the literature has been written by 'outsiders', notably expatriate 'conservationists', and therefore presents an outsiders' perspective. There appears to be a significant lack of literature on community wildlife initiatives by African writers, and where this does exist it is not easily available.

Many wildlife projects now advocate people's participation. However, in the literature reviewed there was no real evidence of how local people's views are being incorporated in the planning, management and implementation of projects.

In the time available it has not been possible to verify the project descriptions with professionals working in the field. As a result, the descriptions may contain various inconsistencies and discrepancies, particularly since many of the available reports are several years old.

Most community-based wildlife management projects in Africa have been initiated only during the last 10 years. It is therefore premature to make judgements on their achievements and long-term impacts. Within the literature reviewed there was insufficient information available to enable an accurate assessment to be made of either the positive or negative impacts of these projects on the ecological conditions.

**Scope of the Report**

This chapter introduces the study and is preceded by an Executive Summary.

In Chapter 2, we define and discuss various concepts and terms related to wildlife management as used in the report: community and stakeholders, wildlife and wildlife management, protected-area categories, conservation and preservation, consumptive and non-consumptive uses of wildlife.

Chapter 3 reviews the classic 'top-down' approaches to wildlife management that have centred on setting up protected areas, the protection of species and habitats, and enforcing wildlife legislation, ignoring the traditional role of wildlife in African culture. We discuss their basic characteristics, provide an historical background and consider their major impacts.

In Chapter 4, various 'participatory' approaches to wildlife management are considered. We distinguish between essentially 'passive' participation, in which input to decision-making and control is limited, and 'active' participation, in which such inputs are generated from within the communities, which are fully involved with the conception, design and implementation of initiatives. We take the view that passive participation represents a continuation of the top-down approach, even though it can be argued that, in its more 'progressive' forms, it adopts principles and characteristics of active participation. We also acknowledge that a number of projects are now being undertaken which incorporate many attributes of active participation whilst not yet being fully active. These might be considered as transitional approaches.

Chapter 5 presents an analysis of the various approaches to community wildlife management described in Chapter 4, and examines the principles and premises that underlie them.

In Chapter 6, we investigate how 'best options' - where community wildlife initiatives might succeed - can be identified. The issue of the comparative value of wildlife resources is explored, together with the principle that community wildlife management needs to be perceived by local people as competitive with alternative uses of these resources. Future options for community wildlife management, and particularly for ODA involvement, are considered. Recommendations are made concerning how ODA might proceed in two situations: where it is already involved in wildlife conservation projects; and where consideration is being given to becoming involved. Lastly, we make a range of suggestions about applied research that is needed to support the future development of initiatives.

Throughout the report we illustrate issues and trends by referring to individual projects and programmes. In Annex II, we provide case study descriptions covering 17 projects/ programmes that have been reviewed in preparing this report. Annex III outlines participatory rural appraisal methods.

Finally, Annex IV lists a range of institutions and individuals known to be working in the field of community wildlife management and includes a preliminary list of contact persons.

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# Definitions and Background Concepts

## Community

The term 'community' can be interpreted in different ways, and some serious conceptual and practical problems constrain most definitions (Murombedzi, 1991). It is important to bear in mind that there are at least three different ways of considering a community: in spatial, social and cultural, and economic terms.

In **spatial** terms, communities are considered conventionally as groupings of people who physically live in the same place. For example, they all inhabit the same village (co-residence). Often they are thought of as using the same area to make their livelihoods, as, for instance, on village lands.

In **social and cultural** terms, communities refer to groupings of people who are linked by ties of kinship and marriage, including tribes and clans, or parts of them (lineages, segmented lineages, etc.). In cultural terms, a community is a complex whole which includes knowledge, beliefs, art, morals, law, custom and many other capabilities and habits acquired by people as members of a particular society (Tylor, 1871). They may or may not occupy the same area and use the same resources for their livelihoods.

In **economic** terms, a community is composed of interest groups - groupings of people who share interests and control over particular resources. They may not necessarily live in the same place, be linked through kinship ties, or share the same cultural heritage. Economic approaches often use concepts of class and ownership or control over resources as tools of analysis. Individuals are often considered as 'stakeholders' in particular resources - a 'stakeholder' being an individual or group with a direct interest in the use and management of the natural-resource base (Brown *et al.*, 1992).

In the context of community wildlife management, 'the community has often implied the lowest unit of social organisation, where individuals can speak and decide for themselves' (Kiss, 1990). Within a community, individuals may give up some of their individuality to behave as a single entity to accomplish common goals.

Stakeholders include:

- local resource users - farmers, fishermen, ranchers, hunters, hunter-gatherers, pastoralists, artisans and others;
- non-governmental conservation groups;
- non-governmental development groups;
- commercial/industrial business people, especially from industries such as forestry, fishing, mining, bushmeat harvesting;

- relevant government agencies, especially forestry, wildlife, game, mineral, agriculture, water resources departments;
- private landowners;
- conservation and science researchers;
- donors;
- local institutions.

Evidently, these three concepts can come together to describe a community, as, for instance, in the archetypal notion of the African village composed of founding lineages who have stewardship and control over a bounded set of resources within a 'territory', lineages who have married into the community, and more recent settlers, all of whom inter-marry, who speak the same language, and who practise the same way of life.

It is important to bear in mind, however, that what may appear to be a community on the ground (i.e. in spatial, social and cultural terms) may in fact be deeply divided in relation to individuals', institutions' and households' interests in, and control over, different kinds of wildlife. In working terms, the more homogenous communities are, the more effective will be their management of resources - assuming that the necessary power and responsibility have been devolved to them.

Village communities have ever-changing internal structures and cannot be treated as ready-to-use corporate actors for wildlife management. Indeed, in many cases the village is not, or is no longer, an effective unit for social action. Such action is seen only among individual households or small groups with common interests.

Clarity on this issue is vital where collective decision-making and action are necessary. Protection and use of areas of common property and protection of wildlife on farm land, which may be against a farmer's normal inclinations, are two instances where a collective responsibility is needed. From this perspective, effective community-based wildlife management is likely to occur only when undertaken by groups that are free from the inner conflicts that can affect larger communities, yet are able to generate the synergy that makes groups more effective than the sum of their members.

**Wildlife**

In the context of community wildlife management, wildlife can be understood to include any non-domesticated animals and plants which are, or could be, used or valued in any way by people. Wild plants can include flowers, grasses, fruits, leaves, bark and roots which provide medicines, fibres, fuel, building materials and food for livestock. Wild animals can include both vertebrates and invertebrates, providing meat, fur, bone, trophies and ivory, and cultural items.

**Management**

This can be defined as the regulated and controlled use of wildlife, and can range from total protection of wildlife for aesthetic and preservationist reasons through to wildlife utilisation.

Makombe *et al.* (1993) argue that management can be for the purpose of *conserving* or *preserving* wildlife. They maintain that '*conservation* has become a generic term meaning all efforts to save the environment and resources'. They also point out that the 'present debate over the implications of the meaning of conservation dates back to 1864 when G.P. Marsh's "Man and Nature" challenged the myth of unlimited resources' (*ibid.*).

In this report, the term conservation is used as defined by Passmore (1974) as: 'the saving of natural resources for later consumption'.

From this definition it is apparent that conservation does not necessarily mean 'fossilising' habitats, nor does it mean preventing different forms of land use taking place. It means 'the wise and planned use of resources' (Bonner, 1993). This can be interpreted as a utilitarian approach to conservation, which embraces preservation, maintenance, sustainable utilisation, restoration and enhancement of the natural environment.

According to Makombe *et al.* (1993), conservation therefore emphasises:

- the management of biological diversity as an essential foundation for the future;
- the maintenance of wildlife populations for the benefit of human beings; and
- the use of species sustainably to enhance the quality of human livelihoods.

Management for *preservation* has been defined by Passmore (1974) as 'the saving of natural resources from use'. Such a definition implies that natural resources currently in short supply must be saved from use so that they are in plentiful supply at a later stage.

Makombe *et al.* (1993) also argue that preservation emphasises:

- guarding natural resources from uses that are not 'appropriate';
- shielding wildlife from exploitation; and
- preserving selected species for future generations.

Taken in this context, preservation can also be seen as a positive concept, concerned with security for the future and not simply the aesthetic value of natural resources. Preservation has often been taken to mean 'protection' or 'fossilisation', where natural resources remain untouched and undisturbed by man.

Wildlife provides numerous benefits which are related to the various **use** and **non-use values** of these resources. Use values comprise direct-use values, indirect-use values and option values (Barbier, 1992a). Direct-use values include harvested products for consumptive use, both traditional and non-traditional (Prescott-Allen, 1982), as well as the use of wildlife for recreational and tourist activities. Indirect-use values arise from the various environmental and ecological functions provided by species and their habitats. These use values may also entail option values if people want to maintain the option of their future use. Non-use values consist essentially of the existence values of wildlife as a unique cultural and heritage asset. Examples of these values are provided in Table 1.

**Table 1**
**Economic values of wildlife and wildlands**

| Use values | | | Non-use values |
|---|---|---|---|
| *Direct-use values*[a] | *Indirect-use values*[b] | *Option values*[c] | *Existence values*[d] *(both traditional and non-traditional)* |
| Harvested products for traditional and non-traditional consumptive use | Ecological functions | Future uses as for direct- and indirect-use values | Biodiversity |
| | Protection functions | | Cultural heritage |
| Recreation and tourism | Waste assimilation functions | | Spiritual |
| Genetic material | Microclimatic functions | | |
| Education | Carbon store functions | | |
| Human habitat | | | |

*Notes:*

(a) **Direct-use values** are the resources and services provided by directly harvesting and exploiting wildlife and by natural areas.

(b) **Indirect-use values** comprise mainly the environmental functions of natural areas - ecological functions (such as nutrient cycling), protection functions (such as ground cover for key watersheds), waste assimilation functions (such as the retention and detoxification of pollution) and wider functions (such as microclimatic stabilisation and carbon storage). These environmental functions all indirectly support economic activity and human welfare. However, individual wildlife species may also have important indirect-use value through key ecological roles.

(c) **Option values** relate to the amount that individuals would be willing to pay to conserve wildlife and wildlands, or at least some of their direct and indirect applications, for future use.

(d) **Existence values** relate to valuation of these resources as unique assets in themselves, with no connection to their use values. This would include the worth of wildlife species, natural areas and overall biodiversity as objects of intrinsic and stewardship value and as unique cultural and heritage assets.

*Source:* Adapted from Barbier, 1992a.

The values and benefits of wildlife can be classified in various ways (see Dixon and Sherman, 1990; Ledec and Goodland, 1988). A distinction is often made between consumptive and non-consumptive uses of wildlife. **Consumptive use** is one form of direct use, as described in Table 1, and may be of either a traditional (e.g. bushmeat and harvesting of medicinal plants) or non-traditional (e.g. safari hunting) nature. **Non-consumptive use** generally refers to non-use values. Non-consumptive benefits may also be either traditional or non-traditional. The non-use, or non-consumptive, values of wildlife may also be of either a traditional or non-traditional nature. Traditional non-consumptive values embrace the cultural use of wildlife, including the reverence of certain species and the use of wildlife imagery in art, folklore and religion. Non-traditional, non-use (non-consumptive) values include the existence values of wildlife as perceived by Northern conservationists.

In terms of consumptive use, rural Africans are highly dependent on wild resources. They provide an important buffer during drought and famine, as wild animals and plants are often more resistant to disease and lack of water than domesticated varieties. For example, in Sudan during the 1984-5 famine 91% of the people in northern Darfur collected or bought, on average, 23 types of wild foods. These included wild grass, wild rice, wild fingermillet and fruits (De Waal, 1989).

Table 2 provides a typology of wildlife management regimes for consumptive use.

Wildlife management also entails various costs. **Direct costs** include the costs of management activities, such as protecting wildlife, as well as the transaction costs (time taken for preparing, holding and attending meetings, etc.) involved in the everyday workings of the management institutions (either traditional or non-traditional). **Indirect costs** comprise the damage caused by wildlife (e.g. elephant damage to crops). **Opportunity costs** represent the value of benefits from wildlands foregone by not choosing an alternative to sustainable utilisation, such as agriculture (Dixon and Sherman, 1990). An important economic issue in wildlife management is *who enjoys the benefits and who pays the costs?* The incidence of costs and benefits among the different stakeholders varies depending on the approach to conservation employed as well as the specific circumstances.

More recently, the concept of sustainable utilisation has emerged. It is based on the principle that the community manages and utilises its wildlife in its own long-term interests. The main objective is the satisfaction of basic needs, particularly food security. Management of the wildlife resource draws from local knowledge, making use of local resources and technologies. Ownership rights or long-term user rights are granted to local communities which, as 'authorities', control and promote wildlife management. Internal rules are created which limit individual access to the resource, and annual offtake of wild animals is limited to sustainable production levels (Baldus, 1991).

**Location of Wildlife Management Activities**

Wildlife management activities occur in three main areas: *within, around* and *outside protected zones*. Approaches to wildlife management and the extent to which communities are involved in management activities depend on the type of protected zone concerned and, within protected areas, on the kind of protection that is sought.

The widely accepted system of protected-area categorisation of IUCN is given in Table 3.

Outside these protected areas, day-to-day management of wildlife resources will generally be in the hands of local people, supervised by members of technical government agencies (foresters, game department staff, etc.). Depending on the richness of wildlife resources available within an area, other outsiders such as hunters from urban centres and commercial interests (loggers, safari companies, etc.) may play a significant role in wildlife utilisation. In recent years, areas adjacent to protected areas have attracted particular attention for community wildlife management. These are known as 'buffer zones'. Activities within these areas aim to conserve biological diversity through the promotion of social and economic development among communities adjacent to protected areas.

**Table 2**
**Wildlife management regimes, traditional and non-traditional consumptive use**

| Management type | Traditional | Non-traditional |
|---|---|---|
| **Wildlife cropping**[a] | Subsistence hunting of wild populations, regulated by rights of access and cultural taboos | Sustained yield cropping of wild populations, regulated by ecologists |
| **Game ranching** | | Cropping of free-ranging but captive populations for sustainable yield |
| **Wildlife farming**[b] | | Husbandry of semi-domesticated animals - an intensified type of game ranching |
| **Wildlife culling** | | Cropping of populations to regulate their size at or below a theoretical carrying capacity |
| **Sport/ceremonial hunting**[c] | Hunting of animals to symbolise passage to manhood (e.g. Maasai, Samburu), chiefs' royal hunting rights, annual village hunts. Regulated by custom. Trophy and sport hunting regulated by official quotas and licences. | Trophy and sport hunting regulated by official quotas and licences. |
| **Problem animal control** | Killing predators that prey on domestic livestock. | Killing of animals to protect crops, control tsetse fly and other diseases. |
| **Non-timber forest product collection** | Collection of foods, medicines, fuelwood, materials for household goods. Regulated by rights of access and cultural taboos. | Harvest for large-scale commercial trade in charcoal, rattans, chewsticks, etc. |
| **Timber harvesting** | Subsistence felling for building materials, cultural symbols, canoes, etc. | Commercial logging for local and export markets. |

*Notes:*

(a) **Wildlife cropping** is the management of large savannah mammals by periodic culling, whilst producing a sustainable yield of products such as meat, hides and skins. Cropping (or culling) is also done on an *ad hoc* basis to solve over-population of wildlife. Cropping can be a high-cost exercise because of the logistics of harvesting game, retrieving the carcasses and organising carcass inspection if the meat is intended for human consumption. The animals should be easily accessible. In some cases, it is necessary to invest in abattoir and refrigeration facilities. Cropping for meat is economically viable only if there is a large internal market for game meat products or if high-value products, such as zebra skins, are involved. Parker (1984) and Bell (1984) have pointed out that the most economically efficient croppers in Africa are poachers. They have an in-depth knowledge of the area and species, have low maintenance costs, use appropriate technology and do not have to satisfy stringent hygiene requirements.

(b) **Wildlife farming** is the rearing and harvesting of wild animals in artificial conditions. The animals are usually kept at high population densities and receive special diets and veterinary care. Species farmed include ostrich, crocodile and eland. It involves high initial and recurrent costs and requires good knowledge of the biology of species involved. Often the products are destined for luxury markets and have high value.

(c) **Sport/ceremonial hunting** is a lightly consumptive utilisation option. Animals are tracked and hunted in a 'wilderness environment' and the prestige lies in taking home the trophy (e.g. head or skin). If well regulated and managed, safari hunting can deliver quick and substantial profits. This type of hunting may be less environmentally damaging than wildlife tourism, since it involves smaller numbers of tourists. A hunting operation requires a professional hunter and staff, basic infrastructure and equipment. Profits depend partly on the availability of a suitable range of 'plains game' (e.g. zebra, various antelope species) and 'big game' (e.g. lion, leopard, elephant). Returns from hunting are high and landowners/communities can charge a fee for each animal hunted. Communities can demand that the outfitter employs local labour wherever possible, and trains local people in skinning and trophy preparation.

**Table 3**
**Protected-area categories and management objectives**

| Category | Type | Objective |
|---|---|---|
| I | Scientific reserve/strict nature reserve | Protect nature and maintain natural processes in an undisturbed state. Emphasise scientific study, environmental monitoring and education, and maintenance of genetic resources in a dynamic and evolutionary state. |
| II | National Park | Protect relatively large natural and scenic areas of national or international significance for scientific, educational and recreational use. |
| III | National monument/natural landmark | Preserve nationally significant natural features and maintain their unique characteristics. |
| IV | Managed nature reserve/ wildlife sanctuary | Protect nationally significant species, groups of species, biotic communities, or physical features of the environment when these require specific human manipulation for their perpetuation. |
| V | Protected landscapes | Maintain nationally significant natural landscapes characteristic of the harmonious interaction of people and land while providing opportunities for public recreation and tourism within the normal lifestyle and economic activity of these areas. |
| VI | Resource reserve | Protect natural resources for future use and prevent or contain development that could affect resources pending the establishment of managed objectives based on appropriate knowledge and planning. |
| VII | Natural biotic area/ anthropological reserve | Allow societies to live in harmony with the environment, undisturbed by modern technology. |
| VIII | Multiple-use management area/managed resource | Sustain production of water, timber, wildlife, pasture and outdoor recreation. Conservation of nature oriented to supporting economic activities (although specific zones can also be designed within these areas to achieve specific conservation objectives). |

*Source*: IUCN, 1985.

Buffer zones have been interpreted in different ways. To some, the term means a physically delineated area, either within or adjacent to a protected area, where land use is partially restricted. It may or may not have legal and restricted-use status. To others, a buffer zone is an area where the interests of different stakeholder groups overlap and intersect, and where a harmonious relationship between the natural environment and people is promoted. The overall management objective in these areas is to optimise the political, economic, social, cultural, ecological and intrinsic value of resources. It is aimed to reach such a process through active, equitable and adaptive management (Brown *et al.*, 1992).

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# Top-Down Approaches

## Characteristics

Top-down approaches are characterised by activities that involve the establishment and expansion of protected areas, formulation and enforcement of wildlife legislation and the development of 'modern' systems of resource tenure. The philosophy behind these approaches is that of 'protection' or 'preservation'. The role of governments in preservation is to guard natural resources from uses that are not 'appropriate', in order to shield wildlife from exploitation and to preserve selected species for future generations. Associated activities include the establishment of protected areas, applied biological research, compilation of biological inventories and monitoring, strict enforcement of wildlife legislation, patrols to prevent illegal activities, infrastructure maintenance, and conservation education tailored to the biological or scientific study of wildlife (Brandon and Wells, 1992).

Wildlife conservation using this approach is usually unsympathetic to the needs of local people. Machlis and Tichnell (1985) argue that the 'preservationist approach ... requires an essentially militaristic strategy and will almost always heighten conflict'. National park and forestry agencies have become armed and paramilitary uniformed organisations, whose main investment is in law enforcement and public relations (Anderson and Grove, 1987b).

Protected-area sites are selected for their high existence value and have often corresponded with areas where communities have settled for thousands of years. Wildlife and resource tenure are invested legally in the state, resulting in the deterioration of customary - often communal - tenure systems. Access to wildlife and traditional subsistence resources is impossible without breaking the law (Marks, 1976). Communities bear the costs of wildlife management and receive few tangible benefits.

The objectives and modes of implementation of wildlife management are determined by groups of outsiders without consulting local communities. Often the management groups consist of representatives of donor organisations, government and project staff, in certain cases assisted by consultants. Revenue from protected areas and tourist activities is usually directed to the government treasury and/or external entrepreneurs. Very little tends to be re-invested in these areas or surrounding buffer zones.

## Historical Background

The preservationist style of management of Africa's wildlife had its origins during the colonial period. Apart from their economic interest in Africa, many Europeans have viewed Africa as a 'Garden of Eden', providing the opportunity to experience the 'wild and natural' environment that no longer existed in the domesticated landscapes of Europe (Anderson and Grove, 1987b). Such views manifest themselves in a desire to maintain and preserve Eden.

The first international conservation treaty, the Convention for the Preservation of Animals, was signed in London in 1900 and became the basis for most colonial wildlife legislation in Anglophone Africa. Land was demarcated for national parks and game reserves to protect the large animal species and their habitats. This was done without consideration of traditional land-use systems, and without the consent of the local communities whose lives would be affected. Local people were seen as a threat to wildlife and forests, and park authorities were preoccupied with preventing all human interference.

The newly-established protected areas were larger than the restricted-use areas that had been managed by traditional authorities, and they were managed in ways that caused much local resentment (USAID, 1993). Local people found themselves deprived of access to pastures, farming land, fisheries and wildlife resources upon which they depended for their livelihoods. Rules and regulations were imposed and strictly enforced. Colonial legislation banned traditional hunting rights and restricted the provision of hunting licences to local Africans.

When African countries became independent in the 1960s, expatriates no longer dominated government positions. Many who had been working in conservation expressed their horror and concern over 'Africanisation of the game service' (Bonner, 1993). Throughout the colonial period, virtually no Africans were trained in conservation and wildlife management and thus very few held positions of responsibility. Concern over the future of wildlife in Africa spurred conservationists to create conservation organisations, notably the African Wildlife Leadership Foundation and the World Wide Fund for Nature.

Since independence, new governments have continued to expand the protected-area systems. The legislation and tenure systems introduced during colonisation have been maintained, despite the negative impacts upon neighbouring communities. Anderson and Grove (1987b) suggest that continuing government support for the preservationist attitude is a direct result of the colonial legacy. Interventions from Western governments and donors, and pressure from charitable organisations, have also contributed to the continuing support for protected areas. The lack of appropriate conservation skills amongst Africans has created a dependence on external support and advice, and this has enabled Westerners to continue to dominate the conservation arena, according to their own priorities.

More recently, strong government support for the preservation and extension of national parks and reserves has resulted from their important contribution to the tourist industry. Eco-tourism, game viewing and sport hunting have become increasingly popular as Africa's wildlife areas have gradually become the 'wilderness' to escape to for recreational or aesthetic purposes. Since tourism has become the responsibility of the state in many countries, governments have been responsible for all related policy-making and implementation of tourist ventures. In general, local people have been by-passed and the benefits received by communities from tourism have been meagre or confined to the elites.

Various emotional campaigns, originating in developed countries, have aimed at ensuring the survival of fashionable species (e.g. elephants). These campaigns have often propagated beliefs that reject most forms of consumptive wildlife utilisation and have been promoted by international NGOs, which tend to be 'preservationist' in their approach to wildlife. However, some of these NGOs are recognising the need to incorporate people into their

programmes and are beginning to support projects that provide socio-economic benefits to communities living near protected areas. However, these projects still fail to recognise people's rights to share resources in such areas (Kamugisha and Stahl, 1993). The controversy over the ivory ban clearly illustrates the conflict of values. Several countries in Africa perceive elephants as an economic resource that can be managed sustainably, whereas other members of the conservation community maintain that elephants should not be exploited.

**Nationalisation of Wildlife Resources**

In most African countries land was first nationalised in colonial times. This was the means by which colonial states allocated freehold titles to white settlers and international corporations. Today, justification for retaining land as 'public property' comes from the well rehearsed 'Tragedy of the Commons' argument. It is still thought necessary for the state to own land so as to direct development, and to protect it from destruction by local people.

This approach similarly underpins much legislation for the conservation of wildlife resources. The management of wildlife is usually controlled by central authorities and little, if any, consideration is given to local management systems. Nor is any account taken of the particular characteristics found in different regions of individual countries.

New theoretical analyses and empirical assessments of indigenous land tenure regimes suggest that nationalisation may be failing in its purpose (Lane and Moorehead, 1994). Newly independent states are finding it difficult to provide adequate management at the local level and, as wildlife resources are no longer owned by any particular group or community, no one feels any responsibility to protect them from uncontrolled exploitation (i.e. poaching, unauthorised settlement, timber extraction, charcoal burning, cultivation, etc.). At the same time, not only are wildlife resources being over-exploited, but the traditional means by which they might be protected by communities are also being lost.

**Major Impacts**

Although the top-down approach has made some contribution to the conservation of biodiversity and generation of foreign exchange earnings through tourism and sport hunting, it has also had a critical impact on the food security and livelihood systems of local people. Control over natural resources has been increasingly externalised and people living in and around the parks have become marginalised. However, the effects of national parks, reserves and discriminatory legislation have rarely been fully assessed or publicised. Box 1 details the nature of social impacts suffered by communities as a result of eviction and displacement.

Top-down approaches have overlooked the traditional role of wildlife in African culture, which is oriented towards its contribution to survival, and tied up with totems, taboos and customs. Whilst these initiatives have sometimes reflected a genuine concern for the protection of wildlife, less altruistic motives have also been evident. The difficulties arise from the fact that conservation, as advocated by Westerners, is completely alien to people who have been living in symbiosis with nature for thousands of years (Lusigi, 1990).

**Box 1: Adverse social impacts of resettlement from protected areas**

**Economic:** Crops and livestock suffer depredations by wild animals which local people have little power to control for fear of anti-poaching squads. Tourist demand for certain goods has forced up the prices beyond the reach of local people or has depleted traditional resources, such as firewood.

e.g.: The relocation of the Maasai from different parks in East Africa restricted their grazing lands to the drier areas and denied them access to their sacred sites. This has affected both their culture and their potential for further economic development.

**Social and cultural:** Traditional ways of life and relationships with the land, e.g. ancestral burial grounds, are lost. Traditional patterns of authority, reciprocity and social bonds break down.

e.g.: The Ojibwe tribe (Canada) were displaced from their lands and cut off from their sustained yield economy based on renewable natural resources. They were left dependent on welfare and modern housing that did not fit their cultural patterns. Social disintegration followed.

**Ecological:** People have been moved into environments to which they are poorly adapted.

e.g.: The Ik tribe, previously a successful hunter-gatherer society, were rapidly and forcibly evicted from the Kidepo Valley, which now constitutes part of the Queen Elizabeth National Park in Uganda. They were forced to convert to dryland farming in a region of steep slopes and frequent drought. The tribe is now suffering social disintegration, starvation and overcrowding.

**Technological:** Traditional tools and techniques have not been suited to the new environments

*Source*: West and Brechin, 1991.

There are numerous examples of displacements, including several thousand people from the Zakouma National Park in Chad, Okiek hunter-gatherers from the Mau forest in Kenya and the expulsions of the Maasai from the Serengeti in Tanzania, and the Ik from Kidepo National Park in Uganda.

People are often relocated to areas in entirely different socio-economic and climatic zones. They are denied the right to continue cultivating their customary fields and refused access to the resources necessary for subsistence survival. Many of the marginal areas used for dwellings, fallow cultivation and grazing are incorporated into buffer zones with restricted use. The alternatives that are provided appear attractive on paper but are meagre in reality, forcing many to emigrate, or to re-enter protected areas as poachers and for unauthorised cultivation, hunting and extraction of forest products (see Box 2).

People living adjacent to protected areas have found themselves deprived of resources which for thousands of years they have had the right to utilise. As human populations have grown, demands on the limited resources have increased and the intensity of conflicts between conservation authorities and local people has escalated. In Ethiopia, for example, violent conflict broke out as a result of restrictions on firewood cutting in Simien National Park. When Namibia became independent in 1990, Ovambo tribesmen living on the boundary of

**Box 2: Zakouma National Park, Chad**

When the Zakouma National Park was created in the early 1960s, up to 3,000 people inhabiting 14 villages and seasonal camps were forcibly removed from the area. According to local inhabitants, game department staff threatened to burn their houses and crops if they were not gone by a certain date. The land occupied by the national park contains the richest fisheries, floodplain pastures and agricultural land of the Bahr Azoum river system. The resources of the area provided livelihoods not only for communities settled in the zone but, in the dry season and in times of drought, also for people from communities bordering it. The area was also a 'key resource' for large numbers of transhumant pastoralists from the Sahelian pastures to the north, who visited the zone each year. Local communities had sophisticated resource management systems to control access to the area, including bounded communal 'territories', reciprocal access agreements, and fishery, farming, hunting and pastoral resource managers.

People living within the park boundaries were obliged to re-settle in communities bordering the zone. These neighbouring communities also suffered from the imposition of the park, and community leaders estimate that they lost up to half of the resources which they used to exploit and manage. Levels of out-migration are very high in the area, with up to half the population of many communities (mainly young men) now living in the Central African Republic. Community leaders link these high levels of out-migration directly to the imposition of the park.

*Source*: Moorehead and Diakité, 1991.

Etosha National Park celebrated their freedom by cutting the game fence and driving into the park armed with guns to hunt for meat for their families (*New Scientist*, 1991). Elsewhere local resentment has manifested itself in acts of poaching and vandalism, such as the deliberate starting of fires, poisoning of animals and attacks on park guards.

For many years these conflicts have been settled through police action, with many men being sent to prison, or even shot as poachers. Conservation laws, reserves and game rangers have come to be regarded as enemies of the local people.

Top-down approaches involve significant benefits, from either direct uses or non-uses, for external interests, including national governments and the international conservation community. The extent to which local communities have suffered socio-economic decline as a result of top-down approaches to wildlife management needs to be clarified and understood. Many governments are currently proposing to increase the extent of areas designated as national parks and wildlife reserves. In addition, the growing international concern for environmental protection has led to an increase in 'bureaucratic control' over wildlife resources in recent years (Ghimire, 1991). Not all social groups suffer to the same extent, nor do they all respond in similar ways. Nevertheless, it appears certain that protected areas, outdated legislation and wildlife tenure are likely to be among the major issues of future rural social conflict.

The protection of wildlife by top-down approaches can only be achieved at considerable management cost, particularly in terms of protecting the wildlife from local and other threats, which requires external subsidies. The costs of excluding local people from accessing wildlife resources can also be directly related to their sudden loss of income or livelihood.

Rarely have top-down conservation interventions been subjected to rigorous economic analysis to determine whether the benefits are greater than the costs. The presumption has generally been that the non-use benefits, or the value of conserving wildlife, are worth more than almost any cost they incur.

# ~ 4 ~

# Participatory Approaches

## Introduction

It has become increasingly clear that the top-down approach to wildlife management which emphasises strict protection of species and habitat has not always achieved its stated objectives (Brown and Wyckoff-Baird, 1992). Faced with the ecological crisis of the 1980s, famine, and deteriorating wild animal populations and habitats, conservationists have been forced to reassess their ideologies and methods.

Increasing human populations, alienated from their traditional means of livelihood, now rely on a rapidly diminishing resource base. Conflicts between local people and government authorities have escalated as conservation rules are broken, rendering law enforcement impracticable and costly.

### *Historical background*

Since many African countries gained independence, development assistance to wildlife management has moved away from top-down and towards more participatory approaches. The shift has followed growing recognition that top-down methods of policing and exclusion placed an ever-increasing burden on central governments, and did not always succeed in halting the rapid decline in wild animal populations and habitats. The increasing lack of financial and human resources was leading to serious government neglect of wildlife management in many African countries.

In the 1970s, the UNESCO Man and Biosphere (MAB) Programme began to promote the creation of buffer zones between strictly preserved areas and human settlements, in order to meet the needs and aspirations of the local people. However, MAB programmes were generally seen as being strong in theory and weak in 'addressing explicitly the relationship between environment and development' (Batisse, 1986).

The World Conservation Strategy (IUCN\WWF\UNEP, 1980) attempted to address the concern for local people by emphasising the importance of linking protected-area management with the economic activities of local communities (Brandon and Wells, 1992). Conservationists adopted the approach of including local people in protected-area planning and wildlife management. In 1982, during the World Congress on National Parks in Bali, conservationists called for increased support to communities living near protected areas. In 1985, the World Wildlife Fund launched the Wildlands and Human Needs Programme, supported by USAID and The Moriah Fund. This consisted of about 20 protected-area projects in developing countries that were planned to give equal emphasis to conservation and development. In 1986, the World Bank adopted a policy on wildlands, which required that wildland management be considered in economic and sectoral planning. It also resulted in

increasing numbers of development projects with a wildlife conservation or protected-area component.

Numerous studies examining the practical implications of involving local communities in the management and conservation of wildlife resources have been carried out (Kiss, 1990; Brandon and Wells, 1992; USAID, 1993; Brown and Wyckoff-Baird, 1992). Several workshops on community-oriented wildlife management have been held, e.g. in Malawi in October 1983 (Bell and McShane-Caluzi, 1984), in Zimbabwe in September 1989 (Kiss, 1990), in Uganda in October 1990 (Brown *et al.*, 1992), in Costa Rica in September 1993 (Wildlife Society, 1994), and in Tanzania in February 1994 (unpublished). These brought together field managers, government officials and international experts. Despite the diversity of experience, several common points keep emerging from the workshops: the importance of a thorough understanding of perspectives and needs of communities and individuals within the communities, of strengthening local institutional capacity, of communication and education, of favourable economic and political policies and of a long-term commitment on the part of governments and organisations offering technical and financial support.

### *Characteristics*

The main aim of participatory approaches has been to involve people in the process of wildlife management. However, 'participation' has come to mean different things to different people.

Local participation has been described by Cernea (1985) as:

> ... empowering people to mobilize their own capacities, be social actors, rather than passive subjects, manage the resources, make decisions, and control the activities that affect their lives.

Yet actual examples of this kind of unambiguous participation have been rare. Furthermore, the concept has been interpreted and practised in many different ways.

The range of different participatory approaches used in wildlife management can be viewed as a continuum, ranging from limited input into decision-making and control (**passive participation**) to extensive input into decision-making and control (**active participation**). In other words, there is a spectrum of perceptions and attitudes ranging from 'communities are the threat', through 'communities can't be ignored', to 'communities control the resource'. Many approaches to wildlife management are combinations of 'active' and 'passive' initiatives. Policies, programmes and projects change over time, or advocate different approaches for different components.

Table 4 presents a range of participatory approaches.

### Passive Participation

Passive participation has generally been seen as a means to a more efficient realisation of a project by educating people to facilitate externally-formulated plans and achieve project objectives rather than by enabling power-sharing in decision-making and self-determination

**Table 4**
**A typology of participation**

| Typology | Components of each type |
|---|---|
| **Passive participation** | People participate by being told what is going to happen or has already happened. It is a unilateral announcement by an administration or project management without any listening to people's responses. The information being shared belongs only to external professionals. |
| **Participation in information giving** | People participate by giving answers to questions posed by extractive researchers and project managers using questionnaire surveys or similar approaches. People do not have the opportunity to influence proceedings, as the findings of the research or project design are neither shared nor checked for accuracy. |
| **Participation by consultation** | People participate by being consulted, and external agents listen to views. These external agents define both problems and solutions, and may modify these in the light of people's responses. Such a consultative process does not concede any share in decision-making and professionals are under no obligation to take on board people's views. |
| **Participation for material incentives** | People participate by providing resources, for example labour, in return for food, cash or other material incentives. Much *in situ* research falls in this category, as rural people provide the fields but are not involved in the experimentation or the process of learning. It is very common to see this called participation, yet people have no stake in prolonging activities when the incentives end. |
| **Functional participation** | People participate by forming groups to meet pre-determined objectives related to the project, which can involve the development or promotion of externally-initiated social organisation. Such involvement does not tend to be at early stages of project cycles or planning, but rather after major decisions have been made. These institutions tend to be dependent on external structures, but may become independent in time. |
| **Interactive participation** | People participate in joint analysis, which leads to action plans and the formation of new local groups or the strengthening of existing ones. It tends to involve interdisciplinary methods that seek multiple perspectives and make use of systematic and structured learning processes. These groups take control over local decisions, so that people have a stake in maintaining structures or practices. |
| **Self-mobilisation/ active participation** | People participate by taking initiatives independent of external institutions to change systems. Such self-initiated mobilisation and collective action may or may not challenge existing distributions of wealth and power. |

*Source:* Pimbert and Pretty, 1994.

(West and Brechin, 1991). In this context, participation has been seen as a method of communicating *to* rather than *with* local people.

Such approaches have been described by Brandon and Wells (1992) as having a 'beneficiary orientation', and by West and Brechin (1991) as 'Hire the Natives' schemes. Barrow *et al.* (1993) maintain that they have been dominated by the provision of tangible economic benefits

under the auspices of protected-area outreach programmes and integrated conservation and development activities. The overall goal of such initiatives has been to conserve biological diversity by reducing local opposition to protected-area management, wildlife legislation and modern tenure arrangements.

In practice, these approaches have involved compensation schemes, income-generating projects, substitution of traditional techniques and management practices, and environmental education programmes. Policy-making, planning and management of programmes has remained centralised and dominated by national and foreign technocrats, while the contribution of local people has been passive and limited to the provision of labour or information. Projects have set rigid objectives with easily quantifiable indicators of progress such as income levels, attendance at meetings, wells constructed, etc. Project success has generally been judged on the basis of increases in such indicators.

From an economic perspective, passive participation projects have provided a broader range of benefits to more groups than top-down approaches by incorporating benefits for local communities. Such projects have intended to reduce the costs of conservation, particularly the protection costs. Thus, from a cost-effectiveness viewpoint, these interventions are an improvement on top-down approaches. However, this is not a guarantee of their economic viability.

Problems with many passive participation projects (compensation, income-generation and substitution) arise because of the failure to conduct adequate financial and economic analyses of the changes in livelihood strategies of communities. Any scheme being introduced should pass a simple cost-benefit test, undertaken from the perspective of the community or its members. Unfortunately, such analyses are rarely straightforward and are certainly not a sole criterion for success. Flexibility is needed in evaluating different sources of income, their nature and their role in the livelihood strategies of community members. If such schemes do not provide substantial net benefits, and if communities realise that this is the case, then they are unlikely to be successful. Examination of many community conservation schemes has revealed that proper assessments were rarely undertaken (Barbier, 1992b).

***Compensation***

Local people and communities are sometimes compensated for loss of access to traditional wildlife resources by the provision of an alternative source of income. This is justified on the basis that local people should not have to make economic sacrifices to protect wildlife for global benefit, i.e. through preserving unique species or habitats. It assumes that, by providing compensation, the economic incentive to exploit wildlife illegally is removed.

Compensation schemes tend to be oriented around people living near protected areas. They are directed towards those who might otherwise depend on wildlife as a source of livelihood. Compensation is usually in the form of cash payments or donations. It is also provided as goods or services, including basic social services such as school buildings, equipment purchases, construction and support of health clinics, family planning and sanitation programmes. Compensation is usually provided gratis, in exchange for agreements by local

people to relinquish their rights of access to land set aside for a protected area and/or to co-operate with the objectives of a wildlife conservation project.

For example, compensation for timber extraction has been handed out in the form of a share of royalties or other fees levied by the state on logs removed from forest areas. Payments have generally been made to the leaders of the nominal traditional authority defined at the time of forest reservation or by the colonial timber ordinance. In many cases, not only have these payments been a tiny fraction of the resource value, but they rarely 'trickle down' to more than a few members of the community.

Compensation is based on the principle that people will protect wildlife because they are paid to do so. Although this may well be the case, compensation is normally provided by central government - usually under the auspices of donor-funded projects, many of which are planned on 4/5-year cycles. People are viewed as passive beneficiaries and are not involved in managing the distribution of the handouts. Once donor support is withdrawn, compensation ceases. This happened in Amboseli in Kenya (see Box 3). Communities are left confused and embittered and, having no alternative source of livelihood, revert to illegal utilisation of the wildlife resource. Compensation schemes have become unsustainable short-term solutions and have not helped or encouraged local people to develop long-term livelihood strategies.

Importantly, compensation reinforces the powerlessness of local communities in relation to authorities managing protected areas. Payments to local people not to use protected areas underline their lack of responsibility for what happens within those areas. They reinforce the division between protected areas owned and managed by the state and neighbouring lands managed by communities.

Compensation schemes raise a set of practical economic questions which are difficult to answer. Payments are rarely proportionate to the costs of living near a wildlife-rich area, and are not always fairly distributed amongst individuals. Single women, the poor and the elderly are often ignored. Communities are not homogenous, and the richer and more powerful socio-economic groups often try to capture payments, exacerbating local social inequity (Lee, 1992).

To be effective, compensation schemes should be designed so that the amount of compensation is proportionate to the amount of income foregone. In practice this involves high transaction and management costs. Identifying to what extent variable compensation is necessary also presents many difficulties. Where wildlife resources and their uses have important cultural values, determining appropriate compensation becomes very arbitrary.

In the planning of compensation schemes, time is rarely spent determining *who* should receive compensation, *why, how much,* for *how long*, and in *what form*. Moreover, in some areas the negotiation of rights to compensation is difficult, since many communities consist of displaced peoples or those who have recently migrated into the area and are therefore not part of a traditional group.

The basic social services provided under these schemes suffer from lack of maintenance and, in some cases, remain unused. Communities are not always involved in planning and

**Box 3: Amboseli National Park, Kenya**

For centuries the Amboseli region had been used by the Maasai, and was of crucial importance to their herding system, being the main area where water and green pasture could be found during the dry season. In 1960, during the establishment of the park, the Maasai lost their grazing rights and access to the area, whilst the major benefits from tourism went to the central government in Nairobi. Although a portion of these benefits was given to the district council, the Maasai were not included in its distribution.

In 1977 a programme was established to settle the conflicts between the local people and nature preservation in and around Amboseli National Park by arranging to compensate the Maasai for lost access to water and forage for their livestock. The programme was based on the principle that the Maasai would become joint owners of areas around the park and that they would organise themselves into 'communal cattle ranches'. The main elements of the programme were funded by the World Bank under the 1976 Wildlife and Tourism Project and included the following:

- construction of a water pipeline system to transport water to areas outside the park boundary for livestock watering;
- payment of a compensation fee to the Maasai for lost access to the park and for grass consumed by wildlife outside the park;
- development of camps and tourist circuits on Maasai land outside the park;
- return of lodge royalties to the district council to help pay for the construction of schools and community centres and the provision of health services;
- employment of game guards from a local group ranch.

Progress during the first three years was encouraging, but after 1980 problems began. Payment of financial compensation was delayed, and then the water supply system broke down owing to a complete lack of maintenance. In 1983, the agreement to pay financial compensation was withdrawn without explanation. A school was situated in an unpopular location and tourist activities did not develop. Because government commitments were not honoured, the Maasai have re-entered the park and still use springs there to water their livestock.

*Sources*: Lindsay, 1987; Talbot and Olindo, 1990; Brandon and Wells, 1992.

selection and, as a result, the services provided do not address the needs of the people, who in turn do not feel committed to investing their own time and resources in upkeep and maintenance.

In order for compensation to be more effective, it should provide an alternative to the foregone benefit, or opportunity cost, faced by the community, i.e. it must pass a simple cost-benefit test. Calculating this is often not straightforward, since much local utilisation of wildlife resources may be in the form of subsistence consumption. Accounting for the value-added of transformed wildlife resources that are not commercialised is also problematic and could be expensive to undertake. However, avoiding these issues does not reduce their importance. A key question is whether the compensation serves a purpose in a community's livelihood which is similar to the activity foregone. The common practice of comparing different income sources only in terms of their monetary equivalents is often misleading, yet all too common. Compensation must reflect, first and foremost, what communities feel they are foregoing, rather than some measure determined by external technicians. In other words, compensation must at least be equal to what communities are willing to accept in exchange

for foregoing the use of a resource. This raises problems of the bargaining relationship between local people and outsiders.

***Income generation***

Some initiatives aim to increase local incomes and living standards through the provision of income-generating activities, revenue sharing or alternative employment opportunities. This approach is based on the principle that by providing other sources of income generation the economic incentive to utilise wildlife illegally will be removed. It is a highly popular and widely used approach and often constitutes a component of wider conservation and development projects. Income-generating schemes focus on people living around protected areas and within buffer zones. Employment opportunities include jobs as wardens, rangers,[1] guides, scouts, manual labourers, administrative staff or maintenance workers, and as service staff in the tourist industry. Enterprises are often developed based on wildlife products (e.g. tanning activities, butterfly farming, beekeeping or game ranching - see Box 4), or on the tourist industry market (e.g. handicrafts or farm produce). Revenue-sharing activities involve the distribution of both cash and non-cash income derived from tourist entrance fees, sport hunting and game cropping.

A more complex approach is required to set up income-generating activities than is the case with compensation schemes. The former require credit schemes, low-interest loans, skills training and infrastructure building. Local people are treated as passive beneficiaries and are rarely consulted during planning and establishment. Income-generating schemes tend to be implemented in areas where ownership and control are with central government.

The sustainability of such programmes relies on a favourable legislative and administrative framework, accessibility to and availability of markets for products and active, democratic local institutions.

Although this approach has aimed at improving local incomes and living standards, curbing illegal use of wildlife and removing pressure from protected areas, there are few instances where these aims have been achieved.

In practice, markets for the products of such schemes have been insufficient or inaccessible. Uptake of the various schemes has been slow, since the lack of markets has meant that a steady income is not guaranteed. Project staff have lacked the technical expertise necessary to train the villagers in the income-generating techniques being advocated. In some projects, setting up the schemes has been so time-consuming that local people have found it difficult to participate. Income-generating schemes under the East Usambaras Agricultural Development and Environmental Conservation Project in Tanzania became so complicated that the other project objectives remained unfulfilled (see Box 8). In all but a few cases, central government has retained control over wildlife resources and associated revenue. Consequently, it is not easy for a sense of ownership to develop amongst the local people.

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[1] Described by Cordell (1993) as 'Smokey Bear ranger training'!

**Box 4: Nazinga Game Ranch, Burkina Faso**

The original objectives of the Nazinga project were to '... research, design and develop rational utilization of the wildlife resources in the Nazinga area, in order to increase the resources for the profit of the local people ...' (Lungren, 1990). This involved the establishment of a central meat-producing game ranch and a multiform land utilisation scheme that involved the ranch, surrounding village zones and the nearby Sissili Forest Reserve.

The ranch was established in 1979 in collaboration with the African Wildlife Husbandry Development Association (AWHDA), a Canadian non-profit-making organisation. Advocates of the project stressed that it would help the community to regain access to and control over the wildlife resources in their areas and would also mobilise funds and resources for community development.

The original idea for the Nazinga Game Ranch came from two resident expatriates who were familiar with the area and the people. Prior to project implementation, 6 years were spent discussing the idea with the government and persuading the local communities to accept the project. The latter were not involved in project planning, management or implementation, except as employees.

The first phase was managed by a project team consisting of expatriates and national staff, and provided a considerable amount of local employment, but only for short-term construction and anti-poaching work. Extensive housing facilities, 600 km of roads, two schools, four wells and a village dam were constructed. Tourism and safari hunting operations, although successful revenue earners for the ranch, have not brought much to the local people. Despite the ranch's focus on game production, harvesting of animals has been quite difficult because of the rough terrain, thick vegetation and shy nature of the wildlife. The greatest income earner has been the increase in fishing opportunities created by the provision of numerous permanent water points around the ranch. Encroachment by cattle herds onto the ranch has continued, and village leaders have not taken the responsibility for enforcing hunting rules.

AWHDA assistance ended in 1989 and the Ministry of the Environment assumed full control. A lack of financial resources and manpower has since limited the work. It is still unclear whether Nazinga can function as an operating game ranch. Potential game densities remain unknown. There is no marketing strategy, and the ability of local people to pay for the meat once it is harvested is uncertain.

A review carried out in 1993 by La Société d'Etudes et de Réalisations Agricoles (Ouagadougou) and the World Bank revealed several limitations to the project approach. A lack of follow-up of the research programme resulted in several research activities not being carried out as originally planned. A lack of social and cultural understanding led to unequal distribution of income generated by the ranch and to the introduction of activities that did not correspond to the local people's priorities and needs. All in all, the project demonstrated the difficulties experienced in implementing a publicly-administered programme that does not have clear legal status or a management policy.

The Burkina Faso National Conservation Strategy includes proposals for 5 additional game ranches modelled on Nazinga!

*Sources:* World Bank, 1993; Lungren, 1990.

The lack of success can also be attributed to the 'gender-blind' nature of many schemes. Ownership and management rights over resources have not always been understood prior to designing projects and not all local residents are given an equal opportunity to take part (see Box 5). In some areas, local people remain suspicious of external interventions and have not been willing to participate. 'All fires have only one colour' is how one villager described the

new integrated conservation and development project around the Montagne d'Ambre National Park in Madagascar (Ghimire, 1991) (see Box 9).

**Box 5: Conservation and a Himba community in Western Kaokoland, Namibia**

The women of the pastoralist community in western Kaokoland make baskets using fronds of the palm tree, *Hyphaene ventricose*. They are used to hold milk and water. Recently, the women have started making these baskets to sell to tourists visiting the area. Conservationists within the area warned the villagers that increased consumption of the palm tree may lead to its disappearance. After considerable discussion, it was agreed that palm utilisation would be managed and monitored by one of the male heads of the community.

A few months later it was noted that the palms were dying at an accelerated rate. The community blamed the women, claiming they were too stupid and lazy to manage the palm trees sustainably. However, during a meeting it transpired that the palms had previously been managed and monitored only by women, and placing a man in charge had altered the community's relationship with one of their resources and interfered with gender relations. The women felt under threat and were deliberately ignoring the old way of managing the palms sustainably. The palms were 'returned' to the women, who agreed to take full responsibility for monitoring the use of the trees. They continue to survive.

*Source*: Jacobsohn, 1993.

There is also evidence that, in general, the profitability of many income-generating schemes does not match that of illegal uses (see Box 6). Hunisker and Ngambesso (1993) studied the uptake of income-generating activities around the Dzanga-Sangha Forest Reserve in the Central African Republic. Uptake has been slow because people are only likely to co-operate where the activity is considerably more profitable, in the long term, than the available alternative (i.e. illegal hunting and logging). These issues have rarely been considered in income-generating projects.

**Box 6: The Korup National Park Project in Cameroon**

The WWF's Korup National Park Project makes a substantial commitment on paper to the development of rural communities neighbouring the park. Yet the people who have lost most from the creation of the park - the several thousand producers who live in communities on the borders and within the protected area - have not been the primary beneficiaries of rural development initiatives carried out by the project. Most initiatives to introduce improved cropping systems and livestock raising have focused on communities some distance from the protected area. Further, these initiatives have not taken into account the superior weight-to-value ratio of bushmeat over crops for communities who have to walk, sometimes for days, to the nearest road. There is a thriving demand for bushmeat from as far away as Douala, over 100 km away. In these conditions, it is not surprising that illegal hunting continues. The project is now examining the possibilities of setting up sustainable hunting systems with communities living on the borders of the park.

*Source*: Moorehead and Hammond, 1992.

Many income-generating activities have been over-optimistic about the potential of introducing new activities and expanding existing markets, and have made assumptions prior

to carrying out financial and economic analyses. Substantial non-monetary costs borne by communities, such as local people's labour inputs, have been overlooked or not adequately accounted for in an evaluation. Simply valuing this labour in monetary terms is not always sufficient, since any income-generation scheme may displace other activities. In general monetary income may be an inadequate substitute for wild resources, depending on their role in people's livelihoods. To be successful, income-generating activities must offer substantial gains over current activities, otherwise people will be reluctant to take the risk of participating in the proposed scheme.

The provision of employment is no substitute for the loss of access to natural resources. In some cases only a few members of the community are hired, and in others there is active discrimination against hiring local people. It can also create a small class of salaried locals at the expense of the rest of the community, which in some cases leads to a deterioration in community relations. Most project-related employment is in administration and construction and helps to contribute to the economy of small local communities. However, the period of employment is usually limited to the length of the project and such benefits are only temporary.

The more successful cases of income-generation around protected areas have occurred where activities have been based on traditional activities, where skills already exist within the community or where there is an easily accessible market. In Malawi, beekeeping activities have recently been re-introduced into the Vwaza Wildlife Reserve and Nyika National Park, albeit on a restricted basis (see Box 7).

***Substitution***

Where access to wildlife resources (e.g. meat, forest products and land) has been denied, the strategy is often to provide substitutes for the losses. In order to remove pressure on wildlife, this strategy also aims to substitute more 'modern' methods for traditional methods of resource management which are no longer viable under increasing population densities. It is based on the principle that local people should not have to suffer a lower standard of living for the global benefit of preserving wildlife. Initiatives are oriented around people living in proximity to protected areas.

Various alternative resource management methods have been introduced: promotion of new crop varieties and cultivation methods; erosion control and soil conservation measures such as contour ridging and ploughing; energy-saving devices such as improved cookstoves; irrigation works; tree seedling production for fuelwood, domestic timber and agroforestry; and provision of new water sources for humans and livestock.

The substitution of technical solutions developed outside the area for traditional practices has not always been successful. This is particularly true in dryland areas, where options are extremely limited (Nelson, 1988). Few programmes have allocated sufficient resources to carry out systematic research to identify new and appropriate agricultural practices. Some have established formal linkages with research institutes, but the latter continue to advocate agricultural practices based on Northern-oriented research and experience. There has been little use of indigenous technologies and methods.

**Box 7: The Malawian-German Beekeeping Development Project, Northern Region, Malawi**

Apiculture was a traditional occupation in Malawi. However, increasing population densities, the spread of farmland and the rapidly disappearing forests have led to a gradual decline in honey and beeswax production. The German Embassy and WWF introduced the project to Beekeeping Clubs which are now reviving the beekeeping and honey production business.

The Beekeeping Development Project was initiated in 1989 and is implemented by the Department of National Parks and Wildlife. It aims to develop beekeeping as a viable alternative source of income for people living in proximity to Vwaza Wildlife Reserve and Nyika National Park to help change attitudes of rural people to natural resource conservation and reduce the price of honey so that the average Malawian can afford it. The project trains the Wildlife Department staff and villages in modern methods of beekeeping and local craftsmen are taught to make the Malawi Standard Hive, which produces better-quality honey. Beekeeping Clubs are established in the villages and given some financial and administrative training. Once a Beekeeping Club receives official status, it receives a loan in the form of equipment. The Wildlife Department works through these clubs.

Before the project began, villagers were not allowed to enter the Reserve or National Park to collect honey. However, they went in despite the law and ended up burning down trees to harvest the honey from wild bee colonies. With improved marketing and 'environmentally friendly' extraction techniques, the villagers have been allowed to use conservation areas on a controlled basis. In return, they have promised they will not hunt or collect firewood and abide by the laws and regulations governing protected areas.

The project has helped improve relations between the villagers and the conservation authorities to the extent that villagers are assisting the Wildlife Department in its anti-poaching activities. Demand for honey has grown astronomically, and in some areas villagers have been earning the equivalent of $5.70/day, ten times the national average! However, marketing problems still exist and there have been some delays in the provision of training and a lack of follow up, chiefly as a result of the dearth of trained beekeepers in Malawi.

*Sources*: Banda and Boer, 1993; Adams and McShane, 1992.

Programme managers and policy-makers ignore the fact that local people may perceive their environment in different ways from outsiders. As a result, the technological solutions that are imported are frequently considered inappropriate by the local people; and suggesting or demonstrating such improved agricultural practices is, in the absence of other incentives, unlikely to encourage the resource users to change. Farmers are unwilling to invest their time and labour in new practices that, as far as they are concerned, have not been tried and tested under local conditions and therefore do not guarantee a secure livelihood. For example, the introduction of alternative cash crops has had limited success in the East Usambaras Project in Tanzania (see Box 8). Comprehensive financial and economic analyses are not always conducted.

As yet, there is little evidence of the widespread adoption of 'environmentally friendly' resource management methods (Brandon and Wells, 1992). Many projects have started comparatively recently, and it is still too early to evaluate the results. An example is the woodless house construction technique introduced under the Aïr-Ténéré Conservation and Natural Resource Management Project in Niger (Annex II, Case Study 10). Few people have adopted it, although where wood is scarce, the climate suitable and training in the technique

**Box 8: East Usambaras Agricultural Development and Environmental Conservation Project, Tanzania**

The East Usambaras in northern Tanzania form part of the Eastern Arc Mountain Chain. It has been argued that 'ecologically they are as valuable as the Galapagos islands and, given the current forest depletion rate, protection of the forests is very urgent'.

The forests are home to over 40,000 people who rely on them for fuel, medicines, building materials, etc. They also account for 80% of Tanzania's cardamom production and harvest of tropical hardwoods. In 1987, IUCN initiated the project, advocating the conservation-with-development approach, with funding from the EC and Tanga Regional Authority. The objectives of the project are to protect the forest and to preserve biodiversity by promoting effective forest management and utilisation by local communities; and to improve land management and farming systems in the area. The rationale has been that improvements to local farming systems will reduce the pressures on the natural forest and increase the standard of living of local communities.

**Difficulties encountered**

While the project has achieved some success in promoting stall feeding for livestock and a method of contour-pegging in fields, and has interacted with other organisations in the area, it has also encountered significant constraints. These include:

- *Agricultural improvements*: the promotion of alternative cash crops, e.g. cloves, has not been a success. The project overlooked the fact that cardamom is a very easy crop to grow and one with which the local people are familiar. Persuading them to cultivate an unfamiliar crop, which requires more work, has not been easy! Cardamom is also grown illicitly by outsiders.
- *Community development*: the uptake of the various income-generating schemes, e.g. fish farming, has been low. This is because of the lack of technical expertise amongst project staff. An unforeseen side effect was that setting up the numerous schemes was so time-consuming that the project focus was distracted. Improving the local roads has resulted in improved access, but has stimulated an increase in illegal logging.
- *Forest protection measures*: industrial logging was prohibited and a ban put on pit sawing until a complete forest inventory was completed. Reserve boundaries were marked clearly with eucalyptus and teak species and tree seedling nurseries were established. No method for monitoring the forest is in place and evaluation of the achievements is therefore difficult.

**Lessons learnt**

The project has met with limited success for various reasons: it involves a complex and multidisciplinary approach which has not focused on the main objectives; simpler objectives should have been set at the outset with efforts concentrated on a smaller range of activities; and it has been difficult to enforce new regulations on land use which involve the withdrawal of customary rights of access to land.

Donors, government agencies and local communities each want quick tangible benefits. However, conservation activities cannot provide such results and benefits in the short term, especially if the project cycle lasts only 3-5 years. Long-term commitment and funding are essential.

The project has been staffed by foresters with insufficient technical expertise in social development.

*Source:* Stocking and Perkin, 1992.

at hand, woodless construction constitutes an alternative which is increasingly chosen. Other examples include the introduction of fuel-efficient cookstoves. Women have often indicated their need for this technology. However, when provided, adoption has been slow. Reasons given have included cost, health (reduction in smoke encourages mosquitos), and '*hatujayazoea*'.[2]

Substitution in the form of equipment has not made significant contributions since the level of technical sophistication has been inappropriate to local skills and labour availability. Governments have rarely been able to commit the human resources needed to foster such approaches and the existing staff have been inadequately trained to deal with the complexity of social and technical issues.

### *Conservation education*

Conservation education has focused on raising awareness of the importance of wildlife preservation. It is based on the principle that local communities will be encouraged to practise conservation if they understand the importance of doing so. Environmental education activities have also been introduced to reduce local opposition to the stricter management of wildlife and protected areas and to improve relations between local people and conservation authorities (see Boxes 9 and 10).

**Box 9: Montagne d'Ambre National Park, Madagascar**

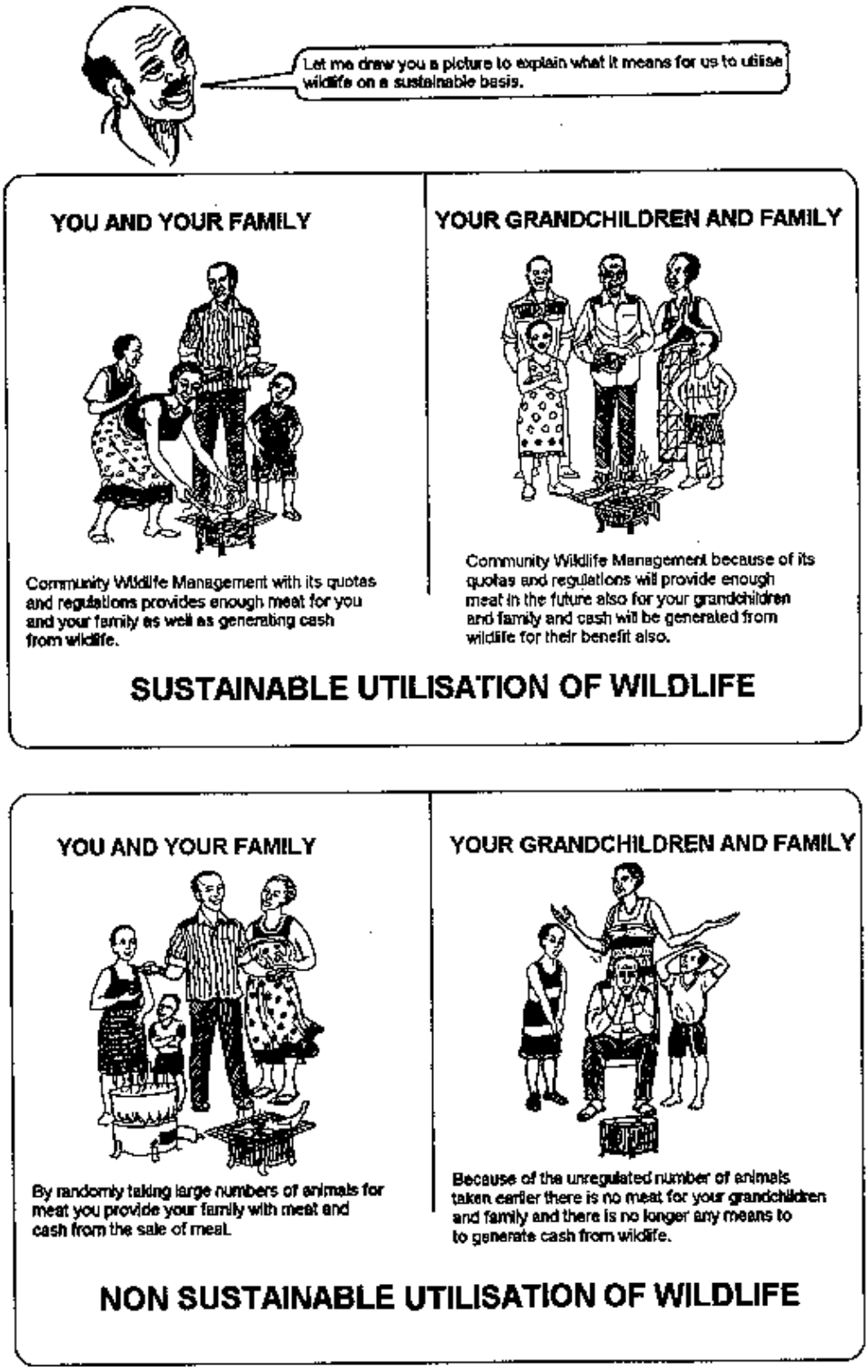
In 1989, an 'integrated' approach was incorporated into the management of the Montagne d'Ambre National Park in Madagascar. Funded by USAID and executed by WWF-International and the Regional Division of Direction des Eaux et Forêts, environmental education was given priority. The aim was to 'make peasants aware of the negative effects of deforestation and the need to protect the park'. The project used local political leaders for 'environmental campaigns' during which glossy posters were distributed. Subjects covered during discussions and meetings tended to be about rare birds and animals threatened by deforestation. One ex-village chief summed up by saying: 'they [project officials] ask us only to protect forests, but for whose benefit they don't say'. Public interest has remained low. People feel that the interests of the park authorities lie in animals and trees rather than themselves and the activities are considered to be not much different from those of policing and imposition of fines. Interestingly, WWF has become commonly identified with the Direction des Eaux et Forêts to the extent that the WWF panda logo is regarded as a symbol of ill-fortune.

*Source*: Ghimire, 1991.

There are some good examples of the use of non-formal educational materials concerned with the livelihood benefits of sustainable wildlife utilisation (see Figure 1). But in general, as the Montagne d'Ambre National Park case illustrates, environmental education activities tend to concentrate on the aesthetic value of wildlife, rather than promoting its value to local livelihoods. The priorities of the 'educators' clearly do not match the priorities of the local people. Conservation educators have not always realised that communities are generally

[2] 'We are not accustomed to using such technologies' (Turu women farmers, Singida, Tanzania).

**Figure 1: Explaining sustainable wildlife utilisation to people**




*Source:* Pamphlet of Selous Conservation Programme, Tanzania.

aware of the negative impacts of deforestation and environmental degradation, since they are dependent on natural resources for their livelihood security and, as a result, any depletion affects them directly. There may be reasons other than lack of environmental awareness that prevent them from taking part in wildlife management.

In an evaluation of WWF conservation education activities around protected areas in Senegal and The Gambia, it was found that local communities were far more confused about the government's objectives after the period of activity than before.

A process of education and dialogue with people who have been subject to displacement and denied access to resources for many years is difficult. Many environmental education activities and associated projects have been initiated in areas where the local population has a history of turbulent relations with conservation authorities, and where there is a strong suspicion of outsiders. Frequently, project managers have underestimated the commitment, human resources and time necessary to develop trusting relationships between communities and conservationists. In Tsavo West National Park in Kenya (see Box 10), the project was successful only in the short term. The influential role of traditional leaders was underestimated.

**Box 10: Community Conservation in Tsavo West National Park, Kenya**

This project was initiated in 1988 by the African Wildlife Foundation (AWF) as part of the 'Protected Areas: Neighbours as Partners' programme. It aimed to address the problem of Maasai pastoralists grazing their livestock in the park. Funded by USAID, the basic principle was that local communities should be involved in the conservation of protected areas.

The project also aimed to restore relations between park authorities and local communities. These had deteriorated mainly as a result of attempts to keep livestock out of the park by arresting and fining local herders.

Attempts were made to solve the grazing problem through dialogue rather than through fines and detention. AWF brought together the local people, park authorities and district officials to discuss alternative grazing schemes and develop income-generating projects. The local communities agreed to remove their cattle from the park in 1990. Wildlife Committees from amongst the local communities were established to assist in the removal of livestock from the park.

Despite initial successes, the Maasai have now returned to grazing in the park. During the drought of 1991, Kenya Wildlife Service allowed limited grazing within the park. However, when the permission expired, the livestock remained in the park.

**Lessons learnt**

The Tsavo Community Conservation Project illustrates the complexities and the potential of attempting to rebuild the relationship between local people and government authorities. For community conservation efforts to be successful in the longer term, government authorities must understand that local people can use resources sustainably and local people need to be assured that governments will protect their rights and interests.

*Sources*: Barrow *et al.*, 1993; USAID, 1993.

## Towards Active Participation

In this section we consider approaches to community wildlife management which go beyond passive participation, as described the previous section. These include, to varying degrees, many of the characteristics of active participation, which is discussed in the next section. But none incorporates the full range of attributes of truly active participation. As such, they can be considered to be transitional approaches between 'passive' and 'active' participation. In some cases, the approaches described below are the main focus of a project: in others, they represent one or more components of a project. Projects may also advocate transitional participation but contain elements of passive participation, and *vice versa.*

These approaches attempt to establish equitable partnerships, so that all stakeholders have an equal opportunity to control, manage and benefit from indigenous wildlife. Stakeholders are given the chance to take part in joint analysis, development of action plans and implementation. As a result, the stakeholders' priorities are incorporated into management strategies. The aim is to propagate a sense of ownership and a strong internal motivation to contribute to sustainable use of wildlife.

Local people are treated with respect, as equal partners, not as 'targets' of conservation or education projects. Decision-making power is shared. The role of the outsiders, project staff, officials and consultants is not primarily to take decisions but to act as catalysts and intermediaries. The role of local institutions, both formal and informal, is emphasised, and the formation of local groups, or strengthening of existing ones, is encouraged.

### *Participatory management structures*

Attempts have increasingly been made to involve local community institutions and individuals in routine management decisions about protected areas, forests, rangelands and other resources. The main aims are to ensure that financial and other benefits are extended to and jointly managed by protected-area agencies and neighbouring communities; to negotiate local-use rights for certain protected-area resources; and to develop management systems for large-scale wildlife areas or protected areas. This entails testing local ownership systems through special dispensations from restrictive national legislation, and the incorporation of community representation in controlling bodies.

The importance of enabling local people to contribute to and influence management plans and actions is emphasised and local people are invited to take up positions on management boards of protected areas, or to develop local institutions that deal with protected-area management on behalf of the local people. See Box 11 for an example of a local institution helping to negotiate rights to a forest reserve for the local people.

The concept of involving local people in protected-area management has frequently been oversold. People have been told that it will enable them to participate and influence wildlife and park policies and management, yet in practice they have not been given any political power. As Lawson (1985) observes in relation to the Inuit participation in Canadian park management, 'Inuit hold positions which implement management plans rather than determining them'. In many cases local people may be involved in management and yet may

**Box 11: Forest management by leaf-gathering women's groups in forest reserves, Ghana**

In Kwapanin, a forest-boundary community near the Afram Headwaters Forest Reserve, the women of the village walk 10-12 miles a day into the forest to collect *Marantaceae* leaves to sell for wrapping food. These leaves have been supporting the majority of Kwapanin households since 1983, when their food farms, cocoa, cola nut and oil palms were destroyed in devastating bushfires, and now provide a major source of livelihood. The Forestry Department requires that gatherers buy a permit before anything is taken from the forest. Some women did buy permits, but nonetheless the system of permits has been a source of friction between them and the Department which has soured relations.

*Marantaceae* are perennial herbaceous plants which grow on the forest floor. They are found most commonly and densely in disturbed sites, in swamps and in moderately burnt forests. They are also found in bush fallow areas and abandoned cocoa farms. During the dry season supplies on bush fallow dwindle and people tend to rely on supplies in forest areas.

The leaf-gatherers have about 10 sites in the reserve. They harvest from these sites in rotation, allowing 1-3 months for the site to regenerate before returning. Immature leaves are not collected, since the gatherers know that this would destroy future crops. Women from different villages surrounding the reserve go to the same sites in the reserve. There is no system of proprietary rights.

The gatherers have tried to protect the sites from bushfires and invading *Akyeampong* (*Chromolaena odorata*) weed. A few gatherers have also experimented with planting the seeds near the collection sites to expand the area. They claim that they can harvest the leaves one year after planting.

The leaf-gatherers in all the villages are organised into an 'association', with a 'queen mother' chosen from among themselves to be the spokesperson for the group. Meetings are held monthly within the village to discuss matters concerning their collection sites, prices, the quantity and types of leaves being collected, transport to market centres and relations with the Forestry Department.

After discussions with these women a pilot initiative involving the issuing of free leaf-gathering permits was launched by the Forestry Department in 1991. The scheme helped to generate interest in forest protection. In December 1991 the villagers of Hiayeya mobilised themselves to put out a bushfire that was threatening the reserve. In previous years they had been unwilling to do this for fear of being accused of starting the bushfires. The experimental free permits also helped to improve relations between the Forest Guards and the villagers. The Forest Guards were pleased with the behaviour of the villagers and the leaf-collectors in the reserve.

The leaf-gathering association was able to control its members successfully with regard to their exploitation of the reserve. On several occasions people who did not have permission to be in the reserve were sent away by the leaf-gatherers. For example, a firewood collector from Kumasi was sent to see the Forestry Department before being allowed into the reserve by the villagers.

Fears that the experimental free permits would result in villagers engaging in all kinds of unlawful activities proved unfounded and the Forestry Department is now keen to explore opportunities for expanding initiatives in collaborative forest management.

*Source*: Forestry Department, Ghana, 1993.

not be given any political power. See Box 12 and Annex II, Case Study 12, for examples illustrating the difficulties experienced in incorporating local people's views and opinions into management plans.

**Box 12: Alaska Iñupiat bowhead whaling and the International Whaling Commission**

In 1977, the International Whaling Commission (IWC) announced that the bowhead whale was highly endangered and decided to abolish the exemption for aboriginal subsistence whaling, which had existed for over 60 years. The Iñupiat responded with intense lobbying and, after numerous legal proceedings, the US government introduced several new management principles into the IWC. It was recognised that full participation, co-operation and involvement in decision-making of the affected indigenous peoples was necessary for effective whale management.

However, the relationship between the IWC and the indigenous peoples is still clearly a hierarchical one. 'Participation' and 'co-operation' are accepted by the IWC as long as the Iñupiat accept a subordinate role *vis-à-vis* the IWC. As a result, the Iñupiat representatives are never allowed to address the Commission as 'equal partners'. The IWC does not recognise indigenous peoples as legitimate members since membership is open only to contracting governments. As a consequence, it is impossible for indigenous peoples to file any objection directly to the Commission.

The IWC has also incorporated its own preconceived notions about indigenous peoples and subsistence hunting into its management objectives. Definitions of words such as 'subsistence', 'aboriginal' and 'commercial' have remained ambiguous. These notions have then been used as political instruments against whaling communities. What is needed is perhaps a regional regulatory body with members from both indigenous organisations and governments.

*Source*: Ris, 1993.

### *Efficiency*

Under some initiatives, especially those outside protected areas, responsibility for the management of wildlife is handed over to local communities in order to ease the burden on governments that are unable to support this type of management. Their purpose is to help communities build capacity to make their own decisions and implement them. Planning, management and implementation of projects and programmes becomes the responsibility of the community or local institution. The government withdraws management support, but in most cases retains some administrative and legislative control. The community decides who receives the benefits of the project activities and on what basis. It may have the authority to manage a programme, yet it is rarely empowered to assume full political or legal control. Cash earned from the sale of game meat is one example of the type of benefit received by the community.

This approach differs from passive participation in that communities and individuals are involved actively in management and generation of the benefits instead of acting as passive beneficiaries of 'free' gifts. However, even though communities can gain a greater share of the benefits, they are also shouldering a greater portion of the costs of managing wildlife. This can place a great burden on communities, depending on whether appropriate local institutions exist or can be adapted to wildlife management. Where the transaction costs of establishing and running local wildlife management programmes are greater, wildlife conservation following this approach will appear less attractive.

Examples of the type of projects advocating this approach include: community game guard schemes (see Box 13); income-generating activities that require minimal external support and are based on local wildlife resources (see Box 7); buffer zone management activities and community-owned game ranching initiatives.

**Box 13: Community game guards**

**Lupande Development Project, Zambia**. The Lupande Development Project aimed to involve the local community directly in the protection and management of wildlife and to return a significant portion of wildlife revenues (particularly from safari hunting) to them. One of the objectives was to institute a Village Scout Programme, in which young men from the village were trained in animal identification, military drill and leadership, and paid to serve in an anti-poaching corps led and supervised by a Department of National Parks and Wildlife Services (DNPWS) manager. The Village Scout Corps was primarily responsible for anti-poaching efforts in the Game Management Area, while DNPWS retained responsibility for the adjacent National Park. Employment as a village scout was very appealing to young men who previously had little opportunity to earn money. As a result, elephant poaching dropped by 90% compared with 1985 levels and the Village Scout Programme was extended to inside the South Luangwa National Park. At the end of 1987, DNPWS extended the programme to 5 additional GMAs, which constitute the ADMADE programme and ZWP (see Annex II, Case Studies 5 and 6).

*Source:* Lungu, 1990.

**Herero Community Game Guards, Kaokoveld, Namibia**. A community game guard scheme was initiated by the Herero community in Namibia in order to protect the wildlife which was fast disappearing within the area, and to enable families to shoot some animals for food. As a result of the scheme, wildlife began to return to the area and, since 1987, tourism has boomed in Kaokoveld which has, in turn, stimulated a craft industry. The community now levies a tax on all tourists who spend a night on their land. At first, the tourist companies resisted the levy. But after lengthy negotiations they agreed to pay a sum of $10/tourist. The Purros Conservation and Development Committee has been set up to decide how the tourist levy should be divided. The levy has had an unintended effect. Tourists come in with a different attitude towards the people. Rather than looking at the people as beggars, they know that the money they are paying makes them partners in a conservation project, and that the community is taking care of the wildlife. The total cost of the game guard scheme in 1989 was only $30,000, and was funded by the Endangered Wildlife Trust, a private organisation in Johannesburg. The volunteers were paid about $25/month.

*Source:* Bonner, 1993.

The intention of *efficiency* is to involve local people in the design and implementation of projects, so that these will reflect people's needs more accurately. However, whilst local people may identify the problems which concern them (which may or may not match the objectives of projects or donors), active participation is still hard to achieve. In many areas, local institutions are undeveloped and may not act in a truly democratic manner and institutional capacity building has not been addressed in many projects.

The ADMADE programme in Zambia, (see Annex II, Case Study 5) advocates local participation and leadership in wildlife management, with guarantees that revenues accruing from the resource are returned to the local people in the form of employment and community development. However, the project has been criticised for 'having an adverse effect on the livelihood of villagers, by denying them access to game meat, their major source of protein,

and imposing levies that they cannot afford' (*Development Dialogue*, Oct./Nov. 1993). Within ADMADE, the intention was to involve the community in decision-making and the distribution of benefits, but it has not always been fully participatory at the local level.

The WINDFALL project in Zimbabwe (see Annex II, Case Study 1) also failed because the distribution of benefits did not reach local communities, which were not involved in planning or management of the programme. In some cases, these projects have also received high-level support. Patronage by the head of state or head of government can be enormously helpful to any project, but it can also create difficult problems, especially if the project is perceived to be too closely associated with a particular individual and is promoted (sometimes forced through) by that individual without necessarily having wider support within responsible authorities or communities. Problems can subsequently arise once the patron is no longer in power and aggrieved parties seek 'revenge'. This problem is exemplified by the Luangwa Integrated Resource Development Project in Zambia (see Box 14).

**Box 14: Luangwa Integrated Resource Development Project (LIRDP), Zambia**

Luangwa is a remote 15,000 km$^2$ valley in Zambia. Poverty and malnutrition are widespread, schools and health care facilities minimal. The area is rich in wildlife, but in the past most legal revenues from wildlife flowed to the government and business outside the area. Twenty years of poaching reduced the elephant population from about 100,000 to under 30,000, and brought the black rhino to the verge of extinction.

Started in 1986, LIRDP aims to improve the standard of living of the people through sustainable use of the area's natural resources. It has established mechanisms for local communities to assume increasing responsibility for the management of natural resources in the valley, particularly wildlife.

A local committee decides the allocation of hunting quotas. All revenues from wildlife (hunting concession fees, licence and trophy fees, a surcharge on tourist lodges, etc.) now remain in the area: 40% of these are used directly for community projects decided by a local leadership committee (traditional and elected leaders and others). Projects have included: a much needed health clinic; new roads and road improvements; a vital bridge; a highly successful maize milling and distribution facility, which saved thousands from starvation during recent drought; an LIRDP trucking company and bus service; and the establishment of LIRDP's own safari company. The projects have increased revenues to the area to support development initiatives decided by the leadership committee.

The former Zambian government regarded the project as a critical element in the implementation of the National Conservation Strategy. It viewed LIRDP as a pilot project to demonstrate the real benefits of applying conservation principles to development. The model is already being used, with modification, in other parts of the country. The benefits of conserving wildlife and investing revenues from wildlife use in local development were quickly realised by Luangwa's people. Through community co-operation, elephant poaching in the project area was brought under control by 1991.

The project benefited from the personal support of the former President, Kenneth Kaunda. However, it did not win the committed support of some sectors of government, including the Wildlife Department - which saw the project as interfering in its areas of responsibility and established its own community wildlife project along similar lines (see Case Study 5, Annex II). When the government and President lost office in 1991, presidential patronage ceased, senior project staff were replaced and the project was taken over by the National Parks and Wildlife Service. The future of LIRDP is not clear.

*Sources*: Dalal-Clayton, 1988; Thor Larsen (pers. comm.).

Although this approach usually devotes considerable effort to promoting people's involvement, and uses locally-generated revenues to support local development and wildlife management costs, experience shows that most efforts still depend heavily on outside funding. The latter has often frustrated attempts to make management more self-supportive. Funds can be so large that they swamp locally-generated resources, which are overlooked or not perceived to be relevant to the project. Projects based on such large funds cannot be sustained indefinitely (Lewis *et al.*, 1990).

***Empowerment***

Empowerment involves local institutions and individuals in the management of wildlife and is based on the principle of communal ownership and tenure of resources. Activities tend to be concentrated on communal lands not associated with protected areas. The aim is to devolve decision-making power to local levels, providing more scope for communities, interest groups and individuals to express their views publicly. The approach is based on the idea that communities will develop a vested interest in wildlife management as the associated benefits are re-invested within the community. Projects promoting this approach have made genuine attempts to provide an enabling legislative and administrative framework.

Initiatives promoting this approach seek to encourage consumptive and non-consumptive forms of wildlife utilisation. Benefits generated may result from profits of safari hunting, tourism or the sale of animal products from culling or cropping. It is assumed that the responsible community institution will manage and distribute the benefits equally amongst its members, to whom it is accountable. The best known examples of this approach are the CAMPFIRE programme in Zimbabwe (see Box 15); the Luangwa Integrated Resource Development Project (Box 14 and Annex II, Case Study 4); and ADMADE and Zambia Wetlands Project - both in Zambia (see Annex II, Case Studies 5 and 6). Many community and social forestry schemes also come under this category of approach.

This approach to wildlife management is still evolving, however, and experience has shown that implementation is a complex and demanding process. Its success depends on the existence of markets for wildlife 'goods and services', which will provide greater returns than any other form of land use. It is also dependent on government agreement to decentralise wildlife management authority and on active local institutions. In practice, market forces have not always favoured wildlife products and genuine devolution of decision-making and control has been hard to achieve. As a result, authority to manage wildlife utilisation has not always been fully transferred to local communities. In addition, the extent to which equal distribution occurs has not always been clear.

Where devolution of power has taken place (e.g. in Zimbabwe), studies suggest that the new structures have actually strengthened top-down planning by creating convenient fora for outsiders to mobilise local people into participating in externally-conceived development programmes (Murombedzi, 1991). However, others argue that this has been a desirable development because it has led to a convergence of top-down and bottom-up initiatives (Nhira, 1990).

**Box 15: CAMPFIRE, Zimbabwe**

The basic principle behind CAMPFIRE is the re-empowerment of local communities through providing them with access to, control over, and responsibility for natural resources. A second principle is that local communities should have the right to make decisions regarding those natural resources and any activities that affect them. And a third principle is that local communities should receive the benefits from the exploitation of natural resources.

CAMPFIRE is being implemented by the Department of National Parks and Wildlife Management (DNPWLM) in collaboration with the Centre of Applied Social Sciences (CASS) at the University of Zimbabwe, the WWF Multi Species Animal Production Systems Project research unit, the Zimbabwe Trust (a development NGO) and the CAMPFIRE Association. It operates in 22 districts in Zimbabwe, which have been granted 'appropriate authority' to act as custodians of wildlife in their areas.

The programme commenced over the period 1986-8, involving DNPWLM and its partners in dialogue with selected district councils and communities. The councils and communities chosen for initial approach were those with high *a priori* chances of success, i.e. communities with considerable wildlife resources and district councils with such communities. This involved two types of approach: (a) to district councils first and then, through these, to communities; and (b) to selected communities first and then to their respective councils subsequently.

CAMPFIRE has undoubtedly been a success in some areas, notably in the domains of:

- re-awakening appreciation of the value of wildlife in local people;
- eliminating or drastically reducing poaching;
- reducing complaints about problem animals;
- supporting the emergence of local environmental structures;
- improving environmental conservation practices;
- using wildlife revenues for food security in times of drought;
- initiating local land-use planning;
- increasing household revenues;
- funding schools and clinics;
- providing grinding mills and other community infrastructure.

However, the programme has also run into constraints. One of the main obstacles to progress has been the unwillingness of councils to devolve real responsibility and power to more local communities to manage their own wildlife resources and, above all, to pass on to local communities the full amounts of revenue generated from wildlife management. This is not surprising, as central grants to local government are declining and wildlife revenue is one of the main ways in which local authorities can fund their development programmes. It has meant that many councils have ignored ministerial directives and DNPWLM guidelines on income distribution. They have appropriated the bulk of the revenues generated by their producer communities, made promises of revenue distributions to communities which they have not kept, marginalised any participation in wildlife planning and management by communities and failed to develop training programmes in management for their producer communities.

The result has been ignorance of or hostility to the CAMPFIRE programme, mistrust of councils, increasing intolerance of wildlife and a continued lack of communal environmental controls. These effects are not the fault of the programme's principles but the result of a lack of proper implementation.

*Sources*: Murphree, 1994; Hitchcock and Nangati, 1992.

Projects adopting this approach have so far been limited to areas where wildlife legislation can permit such forms of wildlife management on communal lands. In general, communal lands are still owned by the state. Projects have not been self-sustaining, since the flow of benefits has been hampered by bureaucratic structures. Some governments have been unwilling to support such an approach, since it has been interpreted as a threat to central authority.

Furthermore, the administrative structure of local government is a modern imposition. Traditional leadership has not always been incorporated by the elective process. Delineation of village boundaries has not necessarily corresponded with traditionally evolved communities, nor discrete ecological criteria. Councils may preside over areas which are ecologically heterogeneous, with some areas of high human density and low wildlife populations combined with others of low population density and larger wildlife populations. In the first category the area will have low wildlife revenues and high development demands, but pay little of the costs associated with wildlife. In the second category the opposite applies. Yet such factors are not always taken into account.

It is widely acknowledged that the introduction of controlled utilisation of wildlife is difficult if ownership and access rights are not transferred fully to local people. Traditionally wildlife was perceived as a common resource but now, in many countries, wildlife policy is not clearly articulated. Unless there is a sense of ownership of wildlife amongst local communities, utilisation of these resources remains uncontrolled. This problem has been compounded by the mobility of wildlife species.

Whilst, in theory, the empowerment approach should enable all individuals to participate on equal terms, cases exist where the needs of the less powerful members of the community are forgotten. The danger of granting local control is that powerful community members may try to capture power to the detriment of the marginal members of the community. Box 16 details the lessons learnt by the CAMPFIRE programme.

Some projects have used participatory techniques to stimulate an empowerment process. However, conflicts have arisen between participatory methods and traditional authority. Participatory approaches do not always guarantee a significant impact, especially within largely stratified and traditional societies. The Wildlife Extension Project in Kenya (see Annex II, Case Study 13) drew on the philosophy of Paulo Freire and was developed to follow a bottom-up approach. However, the project never realised its full potential.

There is also a danger that some policies can, for lack of adequate analysis, result in restricted access to a vital resource. No community is entirely homogenous and special consideration needs to be given to those people and sections of it that tend to be excluded from decision-making. When planning programmes it is not sufficient to focus on single issues, such as crop loss by wildlife depredations. Any single intervention can affect many other activities. The case study in Box 17 and Annex II, Case Study 17, both demonstrate the importance of analysing gender relationships within the wider context of a project's objectives.

**Box 16: Lessons learnt by CAMPFIRE, Zimbabwe**

A number of fundamental lessons have been learnt by CAMPFIRE which are shaping present-day initiatives.

The CAMPFIRE programme seeks to establish proprietorial communal property regimes over wildlife and other natural resources. While the definition of *what a community is* is problematic and the number of relevant variables so diverse as to render a 'blueprint' model of an ideal communal management regime difficult, three characteristics are necessary components of a communal property regime:

- the scale (both demographic and spatial) must be small enough to provide conformity to rules largely by informal group pressure;
- costs and benefits must be relatively evenly distributed among members; and
- sanctioned authority, linking responsibility to control capacities, must be present.

The essential institutional profile for successful management must bring together ownership, management, cost and benefit of wildlife in one unit. The proper administrative sub-units for CAMPFIRE implementation are ward and village development committees. This still links communal resource management regimes with the structures of local government, which may not be socially and ecologically ideal but has the advantage of carrying forward the CAMPFIRE programme within accepted structures of local governance.

The CAMPFIRE programme is informed primarily by a desire to make wildlife a competitive form of land use. Where wildlife is not competitive it does not seek to promote this usage above others. This is an important policy stance, with an element of realism often lacking in wildlife conservation programmes. The interests of wildlife conservation are not, nationally and in the long run, served by attempting to enforce its existence in contexts where local farmers and government agencies know that it is a sub-optimal economic use of land.

*Sources*: Hitchcock and Nangati, 1992; Murphree, 1994.

**Box 17: Gender, tenure and the game fence, CAMPFIRE, Zimbabwe**

As part of the CAMPFIRE programme an electric fence was to be provided to protect villagers and their crops from wild animals. Lengthy consultations on the siting of the fence were held with the villagers, but only men were involved. Unfortunately, the fence was eventually erected across the path some women used when they went to collect firewood. As a result, the women had to walk much farther and, unintentionally, their usufructuary rights to their traditional source of firewood became restricted.

The distribution of benefits to women, especially single women, can become uneven under the CAMPFIRE programme. The issue was eventually raised by a divorced mother in Chikwarakwara village. The Village Development Committee decided that divorced women with children would be considered a household for the purposes of distribution of financial benefits from wildlife. In this case, women became full voting members in the formal decision-making process.

*Source:* Child and Peterson, 1991.

***Buffer zone management***

Buffer zones have been used by planners for many years as protective layers around parks and other protected areas. More recently, the buffer zone approach has sought to involve local communities as co-managers and beneficiaries of resources on the edges of protected areas. Local resource users have been encouraged to become actively involved in creating the management policies of buffer zones to enable them to develop a sense of ownership. Stakeholder groups have been encouraged to meet, communicate and develop plans together. Since in many cases protected areas are isolated 'islands', too small to support a naturally-balanced ecosystem, cautious utilisation of resources in the peripheries may be better for the maintenance of ecosystems than total protection. In this way, the neighbouring human population can legally benefit from the area. This may, in turn, activate interest in maintenance of the resources. Certain areas within buffer zones are sometimes opened to provide access for subsistence harvesting of renewable resources (see Box 18).

**Box 18: Community wildlife management around the Selous Game Reserve, Tanzania**

The Selous Conservation Programme was started in 1988, funded by GTZ. It aims to involve local communities in safeguarding the ecological integrity of the reserve. The community wildlife management component is directed towards the villages in the buffer zone surrounding the reserve. The main components of this programme were stated as being:

- To establish land-use plans demarcating village borders, the borders of Selous Game Reserve and the new village wildlife management areas, which will function as buffer zones between the reserve and the cultivated and inhabited village land. Villagers will be given title deeds, thus securing their land rights in the future.
- To elect a Village Wildlife Committee and appoint Village Scouts, who will protect village wildlife from poachers and protect crops.
- To allocate wildlife quotas to the villages for consumption and sale (a quota normally consists of 3 buffalos and 6 wildebeest per year).
- To develop other uses for village wildlife which bring cash to the village, such as safari hunting and tourism.

The project has progressed well. However, in 1990 no wildlife utilisation was taking place. The Government of Tanzania failed to address the key policy issues of decentralisation of control over resources and revenues, so that at least some of the revenue generated could be retained within the area. In 1993, there were 31 villages in 3 districts participating in the programme, but the Wildlife Division was still shooting the quota animals as the legal framework for enabling handover of wildlife management to villages was not yet in place.

*Source*: Baldus, 1991.

Buffer zones tend to be extensions of existing protected areas rather than re-classifications of land within them. When buffer zone extensions were proposed around Lake Manyara and Tarangire National Parks in Tanzania, the local Maasai were concerned that the legal status of their occupation of the land was being transformed without their involvement. No consideration was given to the implications such a transformation could have on future land-use options.

According to Oldfield (1988) few buffer zone initiatives can 'really claim to have succeeded in establishing stable and compatible land use systems around a protected area in such a way that local people are genuinely reconciled to the conservation function of the area'. This failure is usually because buffer zone strategies have been imposed on people by external agencies.

The creation of buffer zones has usually involved land-use planning exercises (see Boxes 18 and 19). The failure of many buffer zone initiatives to engender genuine active community participation in wildlife conservation can probably be related to the continuing centralised, sectoral and top-down nature of land-use planning. As Dalal-Clayton and Dent (1993) have observed:

> Experts prepare maps that indicate in considerable detail how the land should be used. There is little participation of the target groups and, sometimes, little input from agencies charged with implementing the plans. The supposed beneficiaries of development plans have neither the opportunity to articulate their needs, nor to contribute their own local knowledge.

**Box 19: The Dzanga-Sangha Dense Forest Reserve Project, Central African Republic**

The main objective was to protect a sample of the unique forest in the south west and to provide a sanctuary for a number of threatened species, including gorillas, forest elephants, chimpanzees and forest buffalo. The forest is also a vital resource for maintaining the livelihood of the local Pygmy tribe.

An integrated approach with controlled utilisation of the resources was developed and the area was divided into:

- a rural development zone;
- a communal hunting zone;
- a safari hunting zone;
- a zone for forestry exploitation;

Traditional hunting for food by the local community is permitted throughout the reserve. The main project activities are:

- support to the anti-poaching unit composed of 10 reserve guides and 6 Pygmy guides, all recruited locally because of their superior knowledge of the forest and its wild resources;
- public awareness and education programmes and development of research programmes;
- general rural development and controlled forestry exploitation, including agroforestry, improved collection and preparation of fruits, a programme for raising duikers for meat, and social services.

The local community now receives 40% of the revenue from the entrance fees to the Dzanga National Park. In 1992, total revenues were over US$15,000.

*Source*: Doungoube, 1993.

Participation means different things to different people. Consultation and participation are not the same thing. Top-down consultation, by which people are asked to provide facts or opinions, usually about proposals drawn up by others, tends to disillusion and rarely reveals

the full range of information available. Participation means people being actively involved in identifying needs, making plans and implementing them.

Box 20 lists some of the questions that should be asked, answered and acted upon at the outset of planning at the local level.

**Box 20: Basic questions for local-level planning**

1. What are the different groups within a community (e.g. women/men, better/worse-off, younger/older) and which ones have access to and control over particular natural resources (e.g. grazing, water, forest) and which do not? What conflicts exist over access to resources? What does this imply for planning the sustainable use and management of these resources?

   How can the interests of less powerful people be protected in the planning process?

2. What ways have local people developed to assess and manage their resources?

   What local indicators or categories are used to assess the condition of their resources (e.g. presence of particular plant species to indicate soil type or condition)? What can we learn from these approaches that might be useful to other communities?

3. Are the local people interested in sharing their 'know-how' with other communities? Are other communities interested in learning from them? Can we assist them in this process?

4. How have land and resource use patterns and practices changed over time within the area? What factors have influenced the present situation, and what situation do local people envisage for the future with and without changes to current practices?

5. Do the local people want any help, bearing in mind that particular groups within the community may hold different views? If so, how can we help them to improve what they are already doing? How can we help them to identify gaps in their information gathering/analysis process and how can we help to plug these gaps? Are approaches or methods from outside useful and appropriate?

6. What local institutions (e.g. village committees) are involved in or can assist land-use planning?

7. What external services (e.g. government, private sector, NGO) are needed by local people to assist in the process, e.g. technical assistance, finance, etc.

8. What would be the impacts of intervention in local-level planning by external agencies? How might these affect the balance of 'power' within the community and the subsequent use of resources?

*Source*: Dalal-Clayton and Dent, 1993.

### *Multi-species systems*

Multi-species systems can involve a variety of different combinations of wildlife utilisation, for example: game viewing and photographic safaris, documented by Western (1982); safari and trophy hunting of wild populations; combinations of game viewing and trophy hunting; cropping of wild populations for meat and other products; cropping of fenced populations (game ranching); combinations of sport hunting and cropping wild populations; intensive

management of confined populations of a few species (game farming) and running cattle or other domestic livestock with wildlife (Child, 1988; Joubert *et al.*, 1983; Johnstone, 1975). These systems have become increasingly popular in many parts of eastern and southern Africa (Cumming, 1990b). Such systems can offer better economic returns than livestock or marginal agriculture in dry areas, and also help to conserve wild species. These approaches are well documented: Cumming (1988, 1990a/b/c); Cumming and Bond (1991); Jansen (1989); Davies and Skinner (1986); Davies *et al.*, (1986); Skinner *et al.* (1986). Major constraints include: conflicts between wild species and agricultural systems which involve cropping; capacity of range managers to manage more than one species effectively; and shortages of skilled manpower.

Experience in Zimbabwe has shown that, provided landowners are in control, wildlife can justify its place in multi-species production systems. Economic evidence is available only on a case-by-case basis, but in general terms in unpredictable marginal, semi-arid lands wildlife provides users with extra flexibility for livelihood maintenance in times of ecological stress (Child, 1990; Cumming, 1990b).

*Game ranching*

Game ranches earn their revenue mainly from game cropping (see the section on 'Management' in Chapter 2), sport hunting, tourism and the live capture of animals for restocking other protected areas. In some parts of semi-arid West Africa, game ranching is being developed to satisfy the demand for bushmeat, with communities becoming the owners and main beneficiaries. Bushmeat is an important supplement to the diet in rural communities and urban areas in West Africa (Kalivesse, 1991; Falconer, 1992). The Okapi Reserve Project in Zaïre, funded by WWF, involves some proposed utilisation options, e.g. the capture and breeding of okapi, with the involvement of local people, husbandry of the blue duiker for meat production and zoning for traditional hunting by indigenous peoples. Political instability has hampered progress.

Commercial game ranching, particularly for tourism and hunting, is also widespread in southern Africa, where it has become a lucrative supplement to modern cattle ranching and farming. In some cases, local residents have retained access to sites for collection of traditional products such as honey, small rodents, firewood and herbs, etc. Geist (1994) shows that the experience of game ranching in North America is that it has caused pollution of wild stocks of giant deer, or waipiti, by mongrel escapees from the deer farms. Game farms have also spread diseases to livestock, as exemplified by the spread of bovine tuberculosis. Such experiences should be considered prior to introducing game ranching schemes in Africa.

A number of game ranching schemes have been promoted by donors to develop wildlife utilisation for the benefit of local communities, e.g. Nazinga Game Ranch (see Box 4). But these schemes have mistakenly tended to regard wildlife as a substitute for cattle, and there is an assumption that meat is the only commodity that local communities consider necessary for survival. The cultural significance of cattle in many African cultures has frequently been ignored. In addition, the costs and logistics of hunting animals and distributing the products, compounded by irregularities in supply, have often rendered such enterprises unprofitable.

Some game ranches operate more as culling enterprises than ranches. In East Africa sustained offtake of game is sometimes dependent on wildlife migration that brings game onto the ranch. When migrations are constrained by fencing or other land uses, or wildlife is depleted by other factors, then the ranches become inviable.

***Private initiatives***

Private and commercial initiatives play a part in community wildlife management. However, there need to be adequate safeguards to ensure that local communities and local entrepreneurs are the prime beneficiaries of business activities - as owners or concessionaires, respectively, of wildlife resources. Appropriate codes of conduct are required that ensure that businesses use wildlife resources and assets in a sustainable manner. Private entrepreneurs may be unable to solve the conservation dilemma but, given the current difficulties experienced by governments in controlling conservation, local people have a vital role to play in sustainable utilisation of wildlife.

Private individuals have been successful in starting up community conservation schemes on communal pastoral lands and group ranches in Maasailand and Samburu in Kenya (Willy Roberts, Ian Craig, pers. comm.). They have formed Landowner Boards which distribute tourist lodge earnings to the local community. There have been distribution problems. Others have applied to be admitted into the schemes, in the hope of receiving cash benefits.

In Tanzania, private safari companies have entered into contractual agreements with Maasai communities on the margins of Tarangire and Serengeti National Parks. These companies want to build camps and have access to wildlife resources within village boundaries. In return, the community receives a share of income from tourists staying in the camp, although, it must preserve the scenic value of the landscape for tourism by confining land use to livestock herding and restricting cultivation. This has brought safari operators into direct competition with commercial hunters and heightened competition to gain the favour of community leaders. Whilst this can encourage maximum benefits for the community, experience shows that it can lead to abuse as such dealings tend to be independent of government involvement. Furthermore, there is no code of conduct to guide such activities.

Examples of commercial utilisation of wildlife resources are shown in Box 21.

Further fears that powerful private interests will exploit opportunities to profit from exporting luxury wildlife products have fuelled the debate on the trade in endangered species. Attempts to appropriate common property or community wildlife resources for commercial benefit undermine local resource management and can contribute to the demise of individual species. However, as Box 22 demonstrates in the case of ivory, outright bans on trade are not always the most appropriate response. In cases where a ban cannot be fully enforced, the illegal trade it fosters will have the reverse effect of increasing the incentive to over-exploit the resource (Burgess, 1992). Efforts to boost local control over resources are likely to be more effective in promoting sustainable use of the wildlife resource. Where effective management systems do exist, markets for valuable products provide an incentive to manage wildlife on a sustainable basis.

**Box 21:** **Private initiatives**

**Ethiopia's civet musk trade.** Since ancient times Ethiopians have maintained wild-caught civets (*Viverra civetta)* in captivity for the express purpose of extracting musk for commercial trading. Civet musk is used as a fixative in the fabrication of expensive perfumes, and is highly prized throughout the world. Ethiopia's civet farms are found in rural areas in at least 5 provinces and provide significant income to local farmers. In 1987, there were 181 civet farms which held almost 2,800 animals. Although civet farming has been practised for centuries, the civet is still believed to occur in large numbers in a wide range of habitats throughout the country. Traditional capture methods probably contribute directly towards maintaining the species in the wild. Only male civets are kept for the civet farms. Trappers release females back into the wild with a few claws cut so that their tracks will be recognised in the future and trapping can be avoided in that area. Females have the capacity to bear litters of 2-3 young every year.

*Source:* Hillman, 1987.

**Crocodile ranching** - for skins - was pioneered in Zimbabwe, but has since spread through much of southern and eastern Africa. Ranches are intensive farms which collect eggs from the wild to obtain stock. In 1991, over 58,000 eggs were collected in Zimbabwe and the industry earned US$2 million in hide sales. A large portion of the eggs were bought from local communities under the CAMPFIRE programme. Thus, at all levels there is now an economic incentive to conserve crocodiles, which would otherwise be unpopular given their heavy toll of people and livestock each year.

*Source:* Makombe *et al.*, 1993.

## Community-Led Approaches

There is almost no published evidence of wildlife management initiatives which have involved 'community-led approaches', particularly in the sense of communities' taking the initiative themselves, without external assistance, to plan and execute wildlife management (self-mobilisation). In the literature reviewed, 'wildlife management' and 'participation' seem to be conceived almost wholly in the context of donor-funded projects. The debate on 'participation' often refers more to participation in project management, and calls for immediate action and results rather than active participation and control of the management of resources themselves.

In practice, rural communities in Africa and elsewhere have been involved in the management of natural resources, including wildlife, for centuries. They often have profound and detailed knowledge of wildlife ecosystems and species with which they are in contact, and effective ways of ensuring that they are used sustainably. Many traditional systems of harvesting wild plants and animals have been governed by customary rules and religious beliefs (see Annex II, Case Study 16). Genetic diversity has been maintained by the low pressure exercised over natural systems and by the imposition of religious taboos or the existence of sacred groves etc. (see Box 23 and Annex II, Case Study 15). Although not necessarily always intended as conservation instruments, these rules were generally effective in maintaining population equilibrium within the environmental constraints applying at the time.

**Box 22: Ivory trade**

Increasing threats to various endangered species have led to initiatives to curb their international trade, particularly through the mechanism of the Convention on International Trade in Endangered Species (CITES). In the case of ivory, the African elephant was moved from a CITES Appendix II listing to Appendix I in 1989. The effect of this change was to ban all international trade in elephant products. However, various ivory-producing and ivory-consuming countries continue to disagree over the efficacy of this measure.

The imposition of the ban was supported by countries such as Kenya where elephant populations declined substantially during recent decades owing to poaching for ivory. In the absence of a significant and permanent decline in worldwide demand for ivory, the ban on trading has probably increased the illegal component of the trade, putting increased pressure on those elephant populations lacking proper management. As a result, substantial accompanying inflows of external resources have been necessary to enforce the ban. Hence there is continuing debate about the prime reason for a reduction in the decline in elephant numbers. Some argue that it is because of the ban on ivory trading. Others believe that it is simply the result of the concomitant increase in resources, with foreign funding, which have been devoted to anti-poaching efforts. The latter may be the only enduring result of the ban.

From the perspective of community participation in wildlife management, a ban on ivory trading has tremendous potential to be counter-productive. Where effective local management of wildlife exists, international markets for wildlife products provide a greater incentive (because of the higher price) to manage the resource on a sustainable basis. A trading ban removes this incentive. In addition, a ban is likely to have a greater effect on those areas where elephant populations are managed, since exploitation is more visible and restrictions are easier to enforce.

For these reasons, southern African countries such as Zimbabwe have opposed the ban, arguing that their elephant populations are well-managed and possibly even too high. Indeed, the sale of hides and ivory forms a part of local revenues earned under the CAMPFIRE scheme (CITES concerns international, but not national, trade). However, in 1991 this amounted only to approximately 5% of the income from wildlife accruing to the 12 districts which had been granted 'authority' to manage their wildlife resources. This form of income could possibly increase substantially if ivory harvested by communities could find its way to overseas consumers. The additional income would provide a further incentive to conserve and manage wildlife production systems. Various alternative means of regulating the ivory trade have therefore been proposed which would recognise the different situations of countries with elephant populations.

*Sources:* Barbier *et al.*, 1990; Bond, 1993.

The literature on participation and wildlife management is surprising in the way that it appears unaware of the considerable body of work that has been carried out over decades on the social organisation, political economy and natural-resource management systems of rural communities in Africa and elsewhere. Rather than review the large body of literature that exists on these themes (such as Homewood and Rodgers, 1991; Lane and Moorehead, 1994; Lane and Scoones, 1993; McNeely and Pitt, 1985; Potkanski, 1994), we concentrate here on the salient characteristics of community management systems in the context of Africa, with specific reference to communally-held resources, and in particular to wildlife.

Over the last 10 years or so, and in line with the perception that natural resources are becoming increasingly scarce, more emphasis has been given to the relationship between

**Box 23: Indigenous protected-area systems in Ghana**

Small patches of forest, strictly protected by customary laws, have existed in Ghana for many centuries. These areas still exist in rural areas, and are known as sacred or fetish. The basis for declaring a patch of forest sacred varies and several categories of groves exist. Many are very small, less than one hectare, comprising an object (a tree, stone, rock, etc.) considered to be a god or the abode of a god and its immediate surroundings. Such patches may not be so important in terms of wildlife conservation, but a single tree in a shrine may be several hundred years old and could be a valuable source of genetic material for plant breeding purposes.

Sacred groves are patches of forest where the royalty of a particular village were buried and were protected out of respect for the dead and the belief that ancestral spirits lived there. Entry was strictly prohibited, other than for certain members of the community for burial ceremonies, and was authorised then only after a ruling member of a clan made a libation and offered a sacrifice. In many areas, these are the only patches of forest remaining today.

Rivers and streams that were the main sources of drinking water for a village community were also regarded as sacred, and the surrounding forests protected, on the basis that the spirit of the river resided in the forest. Taboos associated with such sites included the prohibition of cultivation or cutting of trees, and the restriction of access to the river on certain days and to persons in certain conditions (such as women during their menstrual period). Such taboos ensured that the village's main source of water was not polluted. Although the protection of forests around the rivers was based on religious and cultural beliefs, it clearly demonstrated river corridor management and is little different from the protective forest reserves established under central government administration to protect water catchments.

In other areas, patches of forest were also protected because they supported wild animal species considered to be sacred, totem or tabooed. The significance of, and the respect, fear or abhorrence accorded to, such species originated in beliefs of common ancestry and superstitions associated with some kind of protective or evil deeds involving the species in the past. For example, the Leopard is the symbol of the Akan people, the Buffalo of the Ekoona clan, the Pied Crow of the Asona clan. Members of these clans identify their spiritual ancestry with the respective animals. Such species, and the forest in which they occurred, were strictly protected, and in some cases eating, killing or even touching of the species were forbidden. The Boaben-Fiema Monkey Sanctuary (see Box 29) is an example of a sacred grove and associated forest which is protected because it supports Black and White Colobus and Mona monkeys, considered sacred by the people of Boaben and Fiema villages.

A number of sacred forests also originate from some historical event linked with the culture of a community. For example, the Pinkwae sacred grove is the site of a battle between the Ashanti and Katamanso people in 1826. It is believed to house the spirits of those who died in the war and the Afiye god whose spiritual powers enabled the Katamanso people to defeat the Ashantis.

The establishment of sacred and fetish groves was primarily based on religious and cultural beliefs, but they have made significant contributions to the protection of wildlife and ecosystems, have promoted the conservation of biological resources, and offer a basis for more extensive conservation-related activities to build on.

*Sources:* Dickenson, 1969; EPC, 1976; Dwomoh, 1990; Ntiamoa-Baidu, 1987 and in prep.; Ntiamoa-Baidu *et al.*, 1992; Fargey, 1991; Lieberman, 1979; Dorm-Adzobu *et al.*, 1991.

social and economic structures and the use and management of natural resources in Africa. There is ample evidence that rural communities in Africa had sophisticated systems of natural-resource management in pre-colonial times, and that significant elements of these

systems remain to the present day in some places. There is also, of course, much material to show how these systems have disintegrated, often under pressure from external forces (Lane, 1991; Kemf, 1993; West and Brechin, 1991). However, it must also be acknowledged that certain cultures were less conservation-minded than others. Certain species, e.g the giant flightless birds (*Aepyornis sp.*) of Madagascar, were hunted to extinction in prehistoric times. But, on the whole, traditional cultures succeeded in surviving because they were able to adapt themselves to stringent ecological conditions. Human and livestock levels were maintained at low levels not deliberately but as a result of warfare, disease and limited supplies of food. Whenever the carrying capacity was exceeded, the balance was probably restored by emigration or famine.

Salient characteristics of successful community management systems dealing with common property resources such as wildlife, are presented in Table 5.

**Table 5**
**Design principles of long-enduring common property resource institutions**

| | |
|---|---|
| 1. Clearly defined boundaries | Individuals or households who have rights to exploit resources must be clearly identified. The boundaries of the area managed must also be clearly defined and agreed upon. |
| 2. Appropriate rules for exploiting the resource, and for maintaining it | Rules limiting the time, place and technology used must be appropriate to the particular resource, and linked to investment in the maintenance of the resource. Rules are simple and easily understood. |
| 3. Collective choice arrangements | The people affected by the rules must be able to participate in changing them. |
| 4. Effective monitoring procedures | Monitors of the rules are either users of the resource, or accountable to them. Monitoring must be easy to carry out. |
| 5. Graduated sanctions | Users of the resource who violate rules are likely to face graduated sanctions depending on the seriousness of the offence. Sanctions are assessed and imposed by fellow users, or officials accountable to them. |
| 6. Conflict-resolution mechanisms | Users and their officials have rapid access to low-cost mechanisms to resolve conflicts among users or between users and officials. |
| 7. Recognition of legitimacy | The rights of users to devise their own institutions are not challenged by external authorities: in most cases they need to be actively supported by them. |

*Source:* Adapted from Ostrom, 1990.

Customary wildlife management systems rely crucially on their *legitimacy* for success. Often this is based on the principle that communities are the original inhabitants of an area and, as first-comers, have the accepted right to be stewards of a defined set of natural resources in the name of their ancestors, the living, and future generations. In many parts of Africa, groupings of households within communities can be distinguished by their composition: founding lineages, lineages married into the founding line and 'strangers' who have arrived in the area more recently. In savannah and dryland communities, where mobility is an

important livelihood strategy, there may be a further distinction between 'strangers' who are resident within a community and seasonal visitors who come to the area each year and with whom the community has reciprocal access rights to resources in different agro-ecological areas.

Within these kinds of societies, founding lineages often hold the position of resource managers. The head of the lineage is vested with supernatural powers, for example, as a 'water/land priest' or hunting leader responsible for sacrificial rites to maintain the productivity of the resource (see Box 24).

**Box 24: Fishing and hunting management systems in the inland Niger Delta of Mali**

The inland delta of the Niger river of Mali has a sophisticated traditional natural-resource management system, reflecting its significance as one of the most important wetlands in Africa. The entire delta is divided into about 30 herding territories, within which are found fishing domains which are several hundred years old. Until the 1940s, these fishing areas were also hunting territories. They were managed by the 'water priests' and sacrificers of the Sorogho people, who still retain customs and techniques they used when they were primarily hunters and gatherers.

The water priest is usually the oldest male head of the founding lineage of a community, who is said to commune directly with fish and animal spirits. He has the power to exclude outsiders and allocate access to resources between household heads and to seasonal and customary strangers (the latter on payment of a fee). As the floodwaters rise in the delta each year, the water priest sets the date for hunting to take place on islands on which wild animals are trapped, and the date at which the harvest for certain kinds of wild food is gathered. As the water falls, the water priest allocates camping sites to visiting fishermen within his territory, and sets the date for starting to use certain techniques, including fish traps, barriers, net and hookline fishing. The water priest also sets the dates for the creation of fish 'reserves' which are exploited later in the dry season using highly complex communal fishing techniques.

Sorogho communities in the delta are composed of founding lineages, lineages who have married in to them and residential strangers. Each year there are significant movements of fishermen through the delta as the waters rise and fall on the floodplains. Sorogho communities have customary 'strangers' who visit their territory each year, and with whom they have reciprocal access agreements. The boundaries of fishing territories are features of the landscape such as trees, secondary and tertiary watercourses and main rivers, and are well known to all Sorogho in the delta.

*Source*: Moorehead, 1991.

It is an essential component of these management systems that the resources are *owned* by the community. Wildlife and other fugitive resources, such as fish, are often owned communally before they are harvested and individually afterwards. Wildlife moving across community boundaries becomes the property of the community whose territory it is in, often with the proviso that hunters have the right to pursue wounded prey into neighbouring territories without immediately asking permission from local resource managers, although they have to inform them afterwards (see Box 25).

As a general rule, these management systems have been severely weakened - first under colonial government in Africa, and at an increasing rate since independence. See Box 26 for an example of Indian hunting territories in Canada. It is not true, however, that they have

**Box 25: The Okiek of the Mau Forest, Kenya**

Around the turn of the century, before the Mau forest was gazetted, there were about 20 main ridges in the area, comprising what is known at the greater Okiek territory of Tinet. About 10 founding Okiek clans (*Oret*) were the owners and managers of these ridges, which were divided into 6 territories incorporating 24-25 recognised sub-territories The forest dwellers had a detailed and effective system for allocating rights to use resources among co-owners and to exclude outsiders. The system covered the entire Mau forest and survived in some areas until as recently as 1975, albeit in a weakened form.

At the heart of this system was family land, known as *kap* land. This land belonged to male heads of families, a grouping of which made up a settlement known as a *kokwet*. Each major ridge in the Mau forest had a set of *kokwet* on open lands located generally at the eastern end of the ridge on higher ground. *Kap* land was for the exclusive use of the family to which it had been allocated. Only family members were allowed to hunt within this area, place their hives in the trees and gather medicines, though outsiders could seek permission from the family head to gather the latter. Each family was composed of a man, his wife or wives and children. On the marriage of a son, a new *kap* was formed and an area demarcated for the new *kap* together with the elder of the *kokwet*, and with the authorisation of the ridge elder. Each family had one area of *kap* land.

At the lower end of each ridge was an area of forest held communally by the ridge dwellers as a whole. Here, all ridge members could hunt and place their hives at will, though not people from other ridges. Beyond this point was an area of open-access deep forest extending towards present-day Kericho.

Each *kokwet* had an elder (*Kiptayat ne mingin*) and a committee drawn from the heads of families (*Boishek ab kokwet*). Overall, there was a ridge elder (*Kiptayat ne uu*) with assistants drawn from the *kokwet* elders and, for the federation of ridges making up one of the territories of Tinet, a paramount elder. For generations these leaders have been chosen, by election or mutual consent, for their qualities as leaders rather than as members of the founding clans, although there is some evidence that founding clan members are commonly found in positions of responsibility.

The responsibilities of the elder/committee at the *kokwet* level were to keep the peace, arbitrate in disputes between *kap*, punish honey theft, monitor and deal with forest fires and authorise access to hunters from other ridges who came into the area in pursuit of wounded prey. Their authorisation also had to be sought for the creation of a new *kap* (most commonly when sons of *kap* were married). Ridge elders and their assistants were responsible for the management of the common forest land of the ridge (fire management, honey theft, access to wounded prey by outside hunters, etc.) and arbitrating in disputes between *kokwet*, and were informed of the creation of new *kap*. Federation leaders oversaw matters affecting all major ridges within their area, and represented their territory to other federations.

*Source*: Moorehead, 1993.

become so weakened as to be powerless. At the present time, with civil unrest common in many parts of Africa, and the decline of government administration and services following structural adjustment programmes, local management systems are beginning to re-assert themselves (especially in the Sudan, Somalia, and Francophone West Africa).

The reasons for the decline of communal systems of resource management are now increasingly being understood. Growing populations and commercialisation of the economies in Africa have led to more and more intense exploitation of land and the destruction of forest and wildlife habitats. As the value of resources rises in response to scarcity, management systems become more exclusive and land tenure rights shift from communal to private

**Box 26: Indian hunting territories in Canada**

The Cree Amerindians of the eastern James Bay in the Canadian subarctic have well-defined hunting areas sub-divided into 'traplines' or hunting territories to which they have exclusive use rights for trapping purposes. Each territory is seasonally occupied by a hunting group, traditionally consisting of two or three nuclear families, spending most of the year together in bush camps, and hunting mostly beaver. The leader of the hunting group controls access to his area and knows about all harvesting activities taking place within it. A good leader has a mental map of all the beaver colonies over an area of several hundred square kilometres, and a pretty good idea of the sex and age composition of the beavers in each. He is the repository of the specialised knowledge needed to travel to an area and to hunt successfully after getting there.

There is evidence to show that on several occasions over the last 150 years beaver populations have declined and then re-established themselves. Evidence from the 1920s and 1930s shows that beaver populations crashed as a result of increasingly intense exploitation by non-native trappers at a time of high fur prices. With the control of access to the beaver resource gone, and unable to stop the intruders, the Cree hunters themselves, by their own admission, contributed to the overhunting of beaver rather than let outsiders take them all.

When the beaver reached an all-time low in the 1930s and the outsiders left, the Cree were able to re-establish their system, backed by government regulations. Under conservation laws introduced after 1930, beaver killing by outsiders was banned and Cree communal territories legally recognised. Within the communal area, family hunting territories were mapped and beaver 'bosses' were put officially in charge of their own territories. Beaver populations recovered in 10 to 20 years, resulting in productive harvests once more.

*Source:* Berkes, 1989.

property regimes. In this process more wealthy groups often capture ownership of the more valuable resources, creating growing differences between households within communities and a breakdown in the linkages between community members upon which communal management systems depended (Behnke 1985, Noronha 1985).

However, because of their natural characteristics, some resources are not suited *economically* to private management. Where communities have low incomes, are critically dependent on a local natural-resource base and face a high degree of uncertainty with respect to income streams, communal forms of tenure are cost-effective and efficient. Relative poverty imposes a strict budget constraint on rural communities with regard to transaction costs (costs of policing, registering and adjudicating titles), making the management of a private property regime too costly for a subsistence economy. Where the distribution of basic natural resources - in particular rainfall - is random and where income streams are uncertain, communal property systems, by allowing access to other areas, act as a hedge against environmental risk (Runge, 1986). This is often the case with fugitive resources such as fisheries and wildlife and in more marginal agro-ecological areas such as Africa's drylands (Lane and Moorehead, 1994). But there is a growing body of evidence to show that, even where these conditions exist, fiscal policy, administrative practice and government legislation have acted to break down communal management systems (see Box 27).

**Box 27: Elephant-hunting grounds in Zaïre**

Bands of BaMbuti net-hunters and archers of Zaïre customarily owned territories covering several hundred square miles of forest for hunting and gathering operations. Originally they hunted elephants mainly for subsistence, and traded ivory on a limited basis. They opposed the Belgian settlers who colonised the zone in the late 19th century. The imposition of a coercive labour system by the colonial government for hunting and gathering activities, together with the introduction of *per capita* taxation, payable in ivory, resulted in the end of their monopoly on hunting, the disruption of customary social ties and obligations, and in individuals beginning to hunt on an individual basis in order to pay their taxes. In the space of 23 years between 1885 and 1908, at least 200,000 elephants were killed for the ivory trade.

The colonial authorities further expropriated the land from the BaMbuti. They then sold it to individual settlers and charter companies, who received the monopoly on hunting and gathering products from these areas. The creation of a national park service, and the setting up in the 1930s of parks and reserves covering over 17,000 square miles, excluded the BaMbuti from land without compensation and forced them into mining and plantation agriculture. Colonial conservation policy was unilaterally designed to serve the recreational and economic interests of European settlers.

Since independence, any citizen of Zaïre has been allowed to hunt elephants in areas outside the parks, provided they have a hunting permit issued by the local administration. In practice, the inability of the parks' authorities to provide effective management, and high levels of corruption in the administration, have meant that elephants have been massacred both within and outside the parks. In particular, small private hunting groups, effectively composed of the presidential clique, have benefited from preferential access.

*Source*: Kisangani, 1986.

The nationalisation of formerly communal property has opened access to resources to all citizens of individual countries, including outsiders who may have no long-term interest in the conservation of the resource. Fiscal demands have raised rural people's cash requirements and obliged them to exploit their resources for short-term needs. The conflicts that have ensued between customary owners and managers of resources and outsiders have been used by administrations to raise revenue (both formal and informal) for the state (see Box 28). In these conditions, post-colonial states have rarely been able to provide sound and sustainable management systems.

The knowledge, technologies and skills developed by indigenous peoples to adapt to and manage their wildlife and land sustainably constitute an invaluable resource. Traditional systems of wildlife management have suffered from a lack of recognition and understanding and are key resources that could be used in conjunction with more modern systems.

One example of community-based wildlife conservation, which has built on indigenous beliefs and management is the Boaben-Fiema monkey sanctuary in Ghana (see Box 29). This initiative has received some donor assistance, and although it has experienced problems in implementation it has also had some success.

**Box 28: Conflict resolution in the inland Niger Delta of Mali**

Fishermen, herders and farmers using the inland Niger delta have a sophisticated customary resource management system (see Box 24). Nationalisation of natural resources by the independent government now means that any citizen of Mali has the formal right to exploit the resources of the delta, provided they have the required permits issued by the technical agencies and the administration.

In recent years, and since the two major droughts of 1972-3 and 1982-5, there has been growing pressure on the delta's resources. Conflicts over access to resources are increasing. In the past, access to resources was allocated through ethnic and kinship ties. But nowadays outsiders can apply for access either through the traditional authorities or through the administration and technical services, which often compete to raise revenue from the local population, since the Malian state is in a financial crisis (civil service salaries in the late 1980s were often paid up to 3 months late).

In these circumstances, access to the more valuable resources of the delta depended on the links (kinship ties or the ability to pay inducements) that individuals had with people holding influential positions in the state structure. It became so common for administrative and technical service staff to require inducements from all parties in a dispute over access that the practice became known as *'la mitraillette'* (the machine gun).

*Sources*: Moorehead, 1991; Diakité, 1993.

**Box 29: Boaben-Fiema Monkey Sanctuary, Brong-Ahafo Region, Ghana**

For centuries the Boaben and Fiema communities, who believed that monkeys were the companions of their ancestors, protected an area of forest endowed with Black and White Colobus, Spot Nose and Mona monkeys. So strong were the beliefs that the communities worked together to establish a monkey 'sanctuary' within the area to ensure their long-term protection. It is strictly forbidden to harm any monkey because they are regarded by the communities as related to the gods of the land.

Initially the monkey sanctuary came under some threat, as a result of an influx of Christian preachers and churches. These tried to undermine the spiritual significance of the sanctuary, by proclaiming that the monkeys were to be killed and eaten. Disagreements also arose between the communities concerning the shrine location. The traditional leaders requested assistance from the Department of Game and Wildlife to resolve the conflict, but their militaristic approach created further disarray. The conflict was finally resolved after lengthy discussions and meetings between the two communities and the Department of Game and Wildlife.

More recently, the communities requested the Town and Country Planning Department to assist in the development of a management plan for the sanctuary, which is to implemented by a Sanctuary Management Board consisting of representatives from the local assembly, the Department of Game and Wildlife and other resource personnel. Subsistence farming will not be permitted within the sanctuary. However, farmers will be moved out only gradually. The cotton farmers will be allowed to cut poles, but only under supervision of the Management Board. Firewood collection will continue, but only dead wood will be taken.

Some small-scale tourism is being encouraged. The EC funded the construction of a rest house, and a Tourist Walk Guide Book has been produced under the Forest Resource Management Project. The communities receive all proceeds from the rest house and sale of the guide book.

*Source*: A.K. Agrare (pers. comm.).

# ~ 5 ~

# Analysis

From the discussion in Chapters 3 and 4, two broad approaches to community wildlife management can be distinguished: top-down and participatory. Each starts from a set of principles that inform approaches to initiatives on the ground.

The classic top-down approach starts from the premise that many wildlife resources in Africa are unique and are of value to the whole world - they are global resources. Project documents and publications invariably begin with a description of the physical characteristics and highlight the unique nature of certain wildlife species to be found in their zone of operations. The people who inhabit the zone, their social and economic systems and history - even where projects have a specific aim of improving people's livelihoods - are almost always mentioned second. The effect of this, even if unintentional, is to convey the impression that local issues and the provision of local livelihoods are less important than ensuring that the wildlife resources are conserved for future generations, and for the world as a whole.

One of the major reasons given for this view is the need for conservation of biodiversity. The loss of biodiversity, it is argued, threatens to deprive future generations of the opportunity to make discoveries in the fields of health and agricultural science which might be of great use to mankind, but which are as yet unknown.

The study of biodiversity, its monitoring, and the implementation of measures to conserve it in the future are seen as the legitimate domain of natural scientists, most often expatriates, who have the skills of Western scientific methods to carry out these tasks. Thus, the aim of maintaining biodiversity militates against the empowerment of local communities to manage their natural resources in that it is argued that they have neither the knowledge nor the training to undertake this process.

Because the resources to be managed are perceived to be of global importance and essential for the preservation of biodiversity, it is usually argued that they must be *protected* above all, rather than simply conserved. This notion carries with it the idea that resources must be protected *from people*, who are seen as the prime agents of the destruction of biodiversity. This, in turn, reinforces the drive to relieve the pressure on resources, rather than to look for ways of promoting more sustainable use of them. Usually no account is taken of the economic, cultural and religious importance that particular areas might have for local people.

These principles frequently define the approaches used for community wildlife management initiatives following a top-down approach. Projects to create and rehabilitate protected areas are drawn up as 'blueprints' with goals fixed to international markers for habitat and wildlife conservation, irrespective of the country or region in which they are implemented. Communities are viewed as homogenous, undifferentiated units, and little appropriate research is carried out into their social structure, production or resource management

mechanisms. All too often, the general approach to managing the protected area is to exclude people through resettlement and policing. Increasing revenue from tourism and recreational use of these areas has rarely been distributed to local people on a significant scale.

Currently there is much debate in the scientific community about the uncertainty and unpredictable natural fluctuations which characterise many populations and ecosystems. It has been realised that it is very difficult to define the 'natural' level of biodiversity, not only because most ecosystems have had human use and manipulation as integral components over thousands of years, but also because these ecosystems may have been constantly changing over time because of other factors.

Since biodiversity is a concept defined in global terms, it tends to be natural scientists from international bodies who grapple with the ethical/ecological issues of change or reduction in biodiversity of a particular wildlife management initiative. In general, however, it can be argued that 'scientific' biological knowledge, to the extent that it is actually used, is often inadequate, and that the main challenges to the sound management of species and ecosystems are social, economic and institutional rather than biological.

It is also argued here that community use of wildlife occurs whether it is acknowledged by authorities/outsiders or not. *Whose knowledge* of species and ecosystems becomes of strategic importance for identifying sustainable management systems. Community knowledge of wildlife resources and ecosystems, their change over time, and the degree of change communities are prepared to tolerate should become the focus for new work on the ecological effectiveness of community wildlife management.

Evidence shows that the top-down experience of wildlife conservation initiatives in Africa has heightened conflict between local communities and conservation bodies. Community management systems that formerly existed in these areas have been destroyed and local people obliged to move to areas that have been often unsuitable. Wildlife conservation has been placed in the hands of ministerial wildlife/conservation departments. These highly centralised institutions have been more responsive to national and international pressures, powerful individuals, party politics and fashions in conservation than to local community needs and perspectives. Attention is focused increasingly on the need to preserve biodiversity, and planning is under way to increase the extent of protected areas to a considerable degree.

Yet, to an increasing extent, conservationists and governments are aware that this approach is not working. The burden of providing effective exclusive management for many of these areas is proving too great for government services to bear. In many protected areas there has been a significant decline in wild animal populations. For example, in Awash National Park in Ethiopia, antagonism between the resident herder communities and the park authorities has resulted in uncontrolled resource use, which has in turn resulted in depletion of wildlife stocks. The recent moves towards decentralisation, political liberalisation, structural adjustment and conditionality are shifting focus to a more local level.

Over the last 20 years, attention has been focused more and more on how local people can be linked to wildlife conservation and protected-area management in a more participatory

manner. The basic argument of this approach has been that, unless local people have a genuine interest in the maintenance of a protected area, it is unlikely that it can be sustained on a long-term basis. There is, however, an important differentiation to be made between participatory approaches that seek the support of local communities for objectives and initiatives that have already been established by outsiders (passive participation), and those which have been instigated by the communities themselves and involve local communities in the planning and conception of the initiatives (active participation). Community wildlife management projects have been a response to the increasing demand that local people should participate in rural development.

Passive initiatives are characterised by compensation schemes, income-generating activities, substitution of local management and production techniques and conservation education programmes. While in general paying greater attention to the local circumstances of rural producers' livelihoods, in many cases these approaches still give attention to protective wildlife management and offer relatively small benefits to local communities. Political power and decision-making remain centralised, leaving local institutions and leadership lacking and undeveloped. Policy-makers and programme managers assume that local people will protect wildlife simply because they are given benefits for doing so. The aim of these activities is to turn local producers *away* from protected areas and to create conditions in which they will have no need to use the natural resources these areas contain for their livelihoods. Passive participation initiatives focus on resources neighbouring protected areas, and often concentrate on investment in infrastructure to the exclusion of tenure issues and institutional capacity-building of local management systems.

Many donor organisations and project managers are under pressure to achieve targets and spend money quickly and have underestimated the time that is required for re-orienting attitudes through trust-building and dialogue. As a result, coercive methods rather than interactive dialogue have often been employed, leading to the rejection of activities by some communities on the grounds that they are being used by donors and national governments to re-exert influence and control. In some cases, government administrations are unwilling to support local participation, especially if it is seen as a threat to central authority.

Many projects have been initiated without adequate social and cultural research. There are cases where externally-conceived theories have been used by policy-makers and planners to justify certain plans and actions. As a result, activities have frequently been undertaken for the wrong reasons and with inadequate priorities (see Box 30) (Brown and Wyckoff-Baird, 1992). There has also been a tendency to assume that communities are homogenous and united. For example, evidence exists to suggest that women have a very particular role in managing natural resources through customary institutions. Cases exist where they have been affected adversely by exclusion from access to resources such as fuelwood, non-timber forest products, water, etc., often as a direct result of externally-sponsored conservation activities.

As a consequence, it is rare for local communities to have a significant say in how wildlife management is run, and the objectives of most projects remain essentially those of the conservation of biodiversity, defined, monitored and implemented by outsiders to the area. This said, some of the more progressive passive participation initiatives are now beginning to look at direct community involvement in utilising resources within protected areas that are

**Box 30: Ngorongoro Conservation Area, Tanzania**

Ngorongoro Conservation Area (NCA) is a joint wildlife conservation/pastoralist land-use area in northern Tanzania, adjacent to the Serengeti Plains, and is part of the ecological unit used by the Serengeti wildlife migrations. Suspicion that the pastoralists contribute to environmental degradation and decrease in wildlife populations led the conservation authorities to propose the expulsion of 25,000 pastoralists from the crater. Pastoralists have denied that their way of life threatens the conservation of the NCA. At the same time, the construction of a hotel on the edge of the crater has clearly caused some environmental damage.

The main arguments being used by the pastoralists are that:

- pastoralism, wildlife and livestock have co-existed in the region for over 2,000 years, with grazing and burning activities helping to shape the present landscape;
- wildlife populations have increased, making the notion of adverse competitive impact of livestock untenable;
- livestock numbers, monitored for 20 years, have shown no signs of overall increase;
- natural resources in the NCA show little sign of degradation.

If the pastoralists are expelled, the potential for illegal in-migration of agriculturalists may increase, so it is possible that degradation may increase as a result!

*Source*: Homewood and Rodgers, 1991.

not in danger, and in providing real benefits to local communities from the management of parks and reserves (e.g. CAMPFIRE, Zimbabwe; Selous Conservation Programme, Tanzania; ADMADE, Zambia). In doing this, they are moving towards the sustainable use of protected resources, and a greater say for local people in conceiving and executing their own development plans. However, before local communities can be expected to participate in any meaningful way, they need to feel confident that their rights of access to resources are assured and that there is a genuine role for them in formal administration of the process. This cannot be achieved without a facilitating legal and administrative framework. Support must be given to the legal recognition of local tenure systems, appropriate to the resources and agro-ecological areas concerned, and legislation that is a product of detailed knowledge of customary arrangements and negotiation at the local level for the resolution of conflicts between resources. Site-specific legal and administrative provisions are particularly important where wildlife migrate over wide areas, and if communities are made up of different resource users and, consequently, a diversity of resource tenure systems (i.e. private farmland, communal ranges, fishing grounds, etc.).

In an increasing number of cases, the policy context already mandates, either implicitly or explicitly, that local people should be involved actively in wildlife management decision-making. Yet true interactive participation is not occurring because the institutional capacity to facilitate it is lacking. Indeed, some government organisations, with donor support, have declared that they have tried participatory methods and found that they did not yield the kind of results they had 'expected', and have used this experience to justify a return to more top-down approaches.

Some institutions are attempting to adopt participatory approaches without changing their existing modes of investment and expenditure. It is, therefore, difficult for programmes to employ participatory approaches appropriately, as they are still expected to present viable and visible 'projects' almost as soon as funds are allocated. The shortage of skilled community-oriented practitioners leads to disillusionment and frustration on the part of some agencies which expect to scale up the new participatory approach quickly. The lesson here is that participation does not offer quick solutions to complex problems. Rather, external agencies should expect, and can themselves greatly benefit from, long-term work with local communities in joint analysis, capacity-strengthening, resource mobilisation and sustainable development.

Public agencies and their donors are not alone in this regard. Where conservation NGOs have tried to involve communities in their conservation efforts they have been restricted by structural constraints. Few have specialised staff with sufficient training and experience to carry out community wildlife management. The capacity to support the active participation of communities in wildlife management has also been constrained by the failure of conservation NGOs to co-opt expertise from development-oriented NGOs and research institutes specialising in working directly with local communities. There is even less evidence of links being made with indigenous NGOs that are beginning to address these issues.

There still remains a significant difference, however, between participatory initiatives and community-led management of wildlife resources. In the section 'Towards Active Participation' in Chapter 4 we have shown that in the past local communities had their own effective institutions and rules for the management of access to wildlife. Population pressure and economic development have led to the breakdown of these systems and the conversion of wildlife habitat to agricultural land in many places. But there remain other areas where community natural-resource management systems might have remained viable were it not for outside intervention and where, to this day, there are significant elements of their structures still in use.

These indigenous management systems empowered local people to develop their own initiatives and rules on how wildlife should be used. The more progressive current initiatives aim to place the controlled use of wildlife resources and local community interests in gaining a livelihood at the forefront of their development agenda. They imply the brokerage of interests between groups within differentiated communities, and acceptance that ownership and the authority to make decisions lie with the people who rely upon those resources directly for their livelihoods. They therefore concentrate on *the maintenance of livelihoods* through the sustainable management of biodiversity.

Table 6 illustrates the types of criteria which could be examined and further developed in a coherent comparative analysis of approaches to community wildlife management.

**Table 6**
**Comparison of approaches to community wildlife management**

| | Top-down | Passive participation | Towards active participation | Community-led |
|---|---|---|---|---|
| **Location/area** | Protected area | Around protected areas | Protected area of selected common land | Communal resources |
| **Legislative/policy framework** | Nationalised resources State land/resource policies | Special dispensation from national legislation/policy | Legislation/policy for government programme | Locally negotiated and legally recognised rights |
| **Main source of support** | Government, donors, 'natural scientists' | Donors | Government | Community |
| **Ownership of wildlife** | State | State | Selected local government | Community |
| **Management institution(s)** | Government departments | Government/'project' | Selected local government | Community with government representation |
| **Operational institution(s)** | Government departments/local government | Project | Local committee | Community with government representation |
| **Primary sanctioning/ conflict-resolution authority** | Courts | Project, courts | Local government, courts | Traditional authorities |
| **Community involvement in planning/design** | None | Low | Medium | High |
| **Community involvement in implementation** | Little | Medium | High | High |
| **Community involvement in monitoring/evaluation** | None | Little | Medium | High |
| **Conservation priority** | Endangered species | Endangered species | Wildlife valued locally and globally | Wildlife of high local value |
| **Primary beneficiary and benefit** | Government (prestige/ revenue)/conservation organisations - global 'existence value' | Government and individual - technology, training | Local government, selected communities - revenue | Community - control over resources |
| **Ecological effectiveness** | High - if well resourced | Medium | Medium | High |
| **Cost effectiveness of outside support[a]** | Low | Low | Medium | High |
| **Community development awareness** | Low | Medium | High | High |
| **Possible example(s)** | Zakouma N.P., Chad | East Usambaras Project, Tanzania; Nazinga Game Ranch, Burkina Faso | Project in Forest Reserves, Ghana; LIRDP, Zambia; CAMPFIRE, Zimbabwe | Niger Delta, Mali; Mau Forest, Kenya |

▪ General assessment (relative values).

*Note:*
(a) Assuming different approaches are meeting a common conservation objective, which may not always be the case.

# ~ 6 ~

# The Way Forward

## Introduction

One of the major challenges facing community wildlife management in Africa today is: *how can wildlife conservation be made sufficiently attractive to local people for them to adopt the practice as a long-term livelihood strategy?*

Within an area where wildlife and people cohabit this notion is strongly influenced by three important sets of factors:

- the distribution and characteristics of natural resources (particularly physiographic conditions, soil fertility, the amount and distribution of annual rainfall and surface water supplies);
- the value of wildlife in terms of the income streams it generates and their distribution;
- the socio-economic, cultural and political structure of the stakeholders who utilise the resources, and their relationship to higher-level structures.

The relationships between these factors and their consequences for community wildlife management are summarised in Table 7.

This presentation purposefully omits many key factors such as management systems, political and legislative frameworks, institutions and property regimes that cover the resources (state, open-access, private) and avoids detailed discussion of the type of protected area concerned. These issues are already well documented (e.g. see Anderson and Grove, 1987a; Bell and McShane-Caluzi, 1984; West and Brechin, 1991; Kiss, 1990; Lane and Moorehead, 1994; USAID, 1993). To include them would result in complicated and unnecessarily lengthy analysis for the purposes of this report.

Our aim is to put forward the basic argument that, in present-day Africa, the *comparative value* of wildlife resources to local people is crucial in determining the options for community wildlife management (see Table 7). Although an over-simplification of the complex dynamics of rural economies, and resource use decision-making processes within them, it can be argued that where the comparative value of wildlife is low (or perceived to be low) in relationship to an alternative land use (for example, agriculture, illegal hunting and illegal animal capture for zoos and the pet trade, etc.), the chances that local people will have an interest in conserving wildlife will also be low (Band 1, Table 7). This situation may occur in an area of gentle gradient, fertile soils and adequate rainfall, where markets for agricultural products and urban centres are more easily accessible. Under such conditions, the pressure on natural resources, in-migration from other areas and differentiation of communities is likely to be high. Illegal exploitation of wildlife is more likely to occur, especially where the political, legislative and administrative frameworks are weak.

**Table 7**
**Opportunities for community wildlife management according to agro-ecological area and socio-economic factors**

| Band | Resource characteristics | Distribution of income | Comparative wildlife value | Stakeholder structure | Opportunities for CWM |
|---|---|---|---|---|---|
| 1 | High amounts of well-spread rainfall, year-round supplies of surface water, moderate slopes, and fertile soils | Skewed towards the better-off, or outside interests | Low | Diverse interests, differentiated communities | Low |
| 2 | High amounts of well-spread rainfall, year-round supplies of surface water, moderate slopes and fertile soils | Skewed towards the better-off, or outside interests | High | Diverse interests, differentiated communities | Possible |
| 3 | Uncertain and low levels of rainfall, poor or seasonal supplies of surface water, steep slopes and poor soils | Equitable | High | Strong linkages between and within communities, reciprocal access rights, mobile livelihood strategies | High |
| 4 | Uncertain and low levels of rainfall, poor or seasonal supplies of surface water, steep slopes and poor soils | Equitable | Low | Strong linkages between and within communities, reciprocal access rights, mobile livelihood strategies | Possible |

In better-endowed areas, under pressure from more diverse interests from both within and outside the community, but where the comparative value of wildlife is *high*, community wildlife management may be possible if local people are given the means and support to control *effectively* access to wildlife resources as well as to income generated from their utilisation (Band 2).

In less well-endowed areas, where rainfall is low and uncertain, the soils poor and gradients steep, and where the value of wildlife is *high* compared with alternative land uses, the chances that local people will opt for - and be able to implement - community wildlife management are good. This is because in these areas people rely on one another to make

their living in conditions of high environmental risk. This reliance on one another fosters stronger community ties, and reciprocal linkages between communities living in the same conditions. The CAMPFIRE programme in Zimbabwe (see Annex II, Case Study 14, and Boxes 15 and 16) has focused on the over-exploited, resource-poor communal areas typical of Band 3 in Table 7.

In these same areas, where the value of wildlife is *low* compared to alternative land uses (i.e. herding), community wildlife management may still be possible by building on strong community institutions and increasing the value of wildlife (Band 4).

Our basic argument, albeit perhaps over-simplified, is that if wildlife resources offer value to the community which is at least comparable with that of other competing resource uses, then the community is more likely to conserve wildlife. However, this is not to suggest that local communities respond only to economic determinants, but rather that these are one among a complex set of factors that determine their behaviour - the others relating to social, political, cultural and religious imperatives.

The absolute value of the resource may be high or low, but the social nature of the communities is a crucial determinant of whether community wildlife management might occur. Generally, communities in resource-poor areas tend to be less stratified, with stronger bonds of reciprocity between individuals and groups than in resource-rich areas. Donor support in such situations may yield high returns in terms of sustainable management, but will need to be very clear about the definition of community and the nature of the stakeholders involved if they are to be successful.

Where the international community or a government continues to place high priority on biodiversity conservation, for example, in a very richly-endowed area, and where other land-use options provide adequate livelihood security compared with wildlife use, local people may have to be subsidised to conserve wildlife. Such subsidies may have to be large and sustained indefinitely, given that they will have to substitute for the revenue that could potentially be derived from practising activities inimical to wildlife (e.g. cultivation).

Where wildlife generates (or has the potential to generate) significant income in a richly-endowed area, it will be essential for local inhabitants to receive a sufficient proportion of this income at least to provide them with sustainable livelihoods and opportunities for improvement. The notion of 'anthropological reserves', as proposed along the Omo river in Ethiopia (Lane *et al.*, 1993), is a perpetuation of the 'Eden' mentality, and is probably unsustainable in the medium to long term (quite apart from ethical considerations), as local people legitimately aspire to better livelihoods.

**Recommendations for Sustainable Management of Wildlife Resources by Local Communities**

Three broad principles can guide us towards achieving effective participation of communities in the conservation of wildlife:

- **Recognition of local community rights to ownership of wildlife resources.** Community rights to wildlife resources should be freely exercised and legally enforceable.

- **Building on formal and informal structures that facilitate community participation in wildlife management.** Community participation should go beyond simple involvement in project implementation, and ensure interactive involvement in an on-going process of project design, planning, implementation and evaluation of wildlife management activities.

- **Operation of effective mechanisms for the sharing of benefits of wildlife resource management with communities.** Benefits to the community arising from the management of wildlife resources should be long-term and at least comparable with alternative ways of utilising those resources.

In practice, local communities may not have assured legal rights of ownership to wildlife resources. Their involvement may amount to less than genuine participation in management. The benefits to the community may not compare with those from alternative utilisation of such resources. In these circumstances, organisations working in the field of wildlife management should consider taking steps to ensure a greater level of participation so that the community feels the project will operate in its best interests and respond to its needs. A feeling of ownership and control over project activities will need to be engendered.

The following recommendations arising from this overview relate to two distinct situations:

1. where organisations are already involved in wildlife conservation projects; and
2. where organisations are considering involvement in such projects.

**1. Where organisations are already involved in wildlife conservation projects**

It cannot be assumed that the design of a wildlife conservation project alone will guarantee genuine participation of the local community, even when this is a declared objective.

The first step that must be taken will be to examine how 'community', 'management' and 'participation' are defined and interpreted in the project.

- Of utmost importance will be an assessment of the form of 'participation' that has been adopted, and where in the spectrum from 'passive' to 'active' it is located. If it is nearer 'passive' than 'active', then immediate action will be required to reformulate the definition of the project. Where the definition is nearer 'active', it will be important to ensure that it provides scope for genuine participation.

- The working definition of 'community' should include all sectors of society, including marginalised groups (e.g. women) and minority interests (e.g. hunters and gatherers). They should all participate in, and receive benefits on an equitable and fair basis from, successful wildlife management. Special attention

should be given to those sectors of society that are relatively poor and powerless.

- 'Management' must be based on empowerment of the community and include their representation in structures formally linked to the wider administration.

The next step will be to check how far project implementation is consistent with those definitions. Action may be needed to remedy any inconsistencies.

To help to make such an assessment, it is suggested that a review of wildlife conservation activities should at least answer the following questions:

- Who initiated the proposal?
- To what extent have groups within rural societies been identified which could usefully be involved in wildlife management?
- What level of participation will local communities enjoy in the design, planning, implementation and future evaluation of the proposed project?
- What benefits accrue to local communities and individuals from their involvement in wildlife resource management?
- How do communities themselves perceive wildlife, and what mechanisms and institutions already exist (or used to exist) within the community for wildlife and natural-resource management?
- How well does the legal and administrative framework within which the project must operate help or hinder community empowerment?
- Is there conflict within and between communities when making use of wildlife resources and relating to/dealing with conservation authorities. What form does this conflict take and how is it being resolved?
- What scope is there for the organisation to support processes for improving community participation in wildlife resource management, directing benefit flows, and resolving conflicts over resources?

If the answers to these questions reveal a lack or complete absence of scope for genuine community participation, then organisations might consider either withdrawing all further support to the project, or promoting reform of project design and/or implementation.

It is recognised that the difficulties arising from long-term involvement in and contractual obligations towards support for wildlife conservation projects may limit organisations' capacity to influence change. However, it also provides an opportunity for them to work from within existing structures to make a greater impact than might otherwise be the case.

Attempts to improve project performance should be preceded by an assessment of the level of community participation, and an examination of how participation can be included where it is deficient. This process itself should be participatory, with a high degree of community involvement at all stages.

Where an organisation decides to continue support for project activities, it is recommended that a project evaluation take place that considers the following:

- how far local community perspectives have been taken full account of in the conception, planning, design and implementation of the project;
- the nature and origin of 'baseline' information on ecological conditions and the effectiveness of the approach adopted in terms of ecological impact, assessed in both 'local' and 'natural science' terms;
- the extent to which legal, policy and administrative frameworks, from national to project level, enable or hinder genuine participation;
- the economic value of wildlife conservation to the community compared with alternative forms of natural-resource use, and whether markets for wildlife products exist and are accessible;
- whether local communities are empowered and enjoy full rights of ownership, management and control over wildlife resources;
- whether local institutions are entrusted with the management of wildlife resources, and the degree of transparency and accountability that is attained;
- how far the project encourages consumptive and non-consumptive wildlife utilisation and the equal distribution of benefits throughout the community.

**2. Where consideration is being given to becoming involved in a wildlife conservation project**

Before a decision is made to support a wildlife conservation initiative, organisations should ensure that a comprehensive project appraisal is undertaken. This should include, as a priority, an assessment of the overall potential for community participation in wildlife management.

The following checklist of considerations is provided to guide the line of inquiry in such an appraisal, as far as community issues themselves are concerned.

- So that communities can participate effectively in wildlife conservation, provision must be made - to the extent practicable - for all sectors of society to be involved in decision-making processes, and receive tangible benefits from their participation.

- Capacity within the community can be enhanced through recognition of local expertise and traditional institutions, where they exist, or the creation of new institutions, by giving them legal authority to manage wildlife resources through formal linkages with wider administrative structures.

- Benefits distribution to the community from successful management of wildlife resources must be administered by a local institution that conducts its activities in a transparent way and is accountable to the community, with full consideration being given to issues of equity.

To promote effective community participation in sustainable wildlife resource management, organisations should ensure that:

- appropriate participatory rural appraisals are conducted to build up pictures of natural-resource endowments, the means by which they are managed, and the socio-economic make-up of communities; this work can also foster a process by which communities can work alongside facilitators through use of participatory inquiry to analyse, plan and act;

- existing community institutions are analysed to gauge the extent to which they are already managing wildlife resources; assess their capacity to provide for community representation in wider structures; and identify the mechanisms for the resolution of conflicts over wildlife resources within and between the community and state structures; and

- formal structures are developed for the distribution of benefits accruing from successful management of wildlife resources in a fully transparent and accountable manner.

Participatory community wildlife management is unlikely to be achieved by a 'traditional' emphasis on disbursing funds and showing quick, measurable results. The constructive dialogue, joint analysis and participatory planning that are necessary run counter to this mode of investment and expenditure. It may be more important to facilitate a gradual release of funds only after a substantial period of consultation with, and capacity strengthening of, local groups and institutions.

Organisations could usefully support the promotion of community management of wildlife resources in the following areas:

- *Policy development*

  It is a challenge for any donor to support processes by which communities can participate actively in wildlife management. This can only happen with the full agreement of national institutions. Interactive dialogue between all parties involved in wildlife conservation up to the highest level is required to bring about the necessary changes in policy, ownership rights, alterations in national administrative frameworks and management structures.

Assistance is needed in the development of national policy and legal frameworks which support community wildlife tenure, benefits and management structures. Support could focus on facilitation of national fora with widespread participation, advocacy, consultative processes and technical expertise.

Community participation in wildlife management cannot be achieved without clear policies and structures that endorse and support local efforts. The intentions of donors must be understood and welcomed by government. Local communities need to feel confident that their views will be heard and followed through. Support could also usefully be provided to facilitating dialogue between the various stakeholders to enable the formulation of policies that take full account of local perspectives.

- *Wildlife resource ownership*

A prerequisite of actively participative wildlife management is legal recognition of community rights over wildlife resources. Assured legal rights to use wildlife resources will not only facilitate community management, but also provide entitlement to revenues generated. Such rights would also provide a sound basis for negotiations over compensation for losses from wildlife (e.g. crop damage, injury and livestock deaths) and reduced access to land and wildlife resources. Organisations might support legal studies to see to what extent legislation enables or limits community wildlife management, and what legislative provisions might be needed at national or local levels (e.g. by-laws) to ensure that community rights are protected.

- *Institutional frameworks*

The administration of wildlife conservation will have to go beyond the management of formal protected-area systems. Communities and community structures need to be included and integrated in national frameworks and be given rights and responsibilities for wildlife management. This will not only facilitate genuine community participation in decision-making, but also ensure proper accounting and equitable distribution of benefits from successful wildlife management. Organisations could provide support for the costs of training a new cadre of staff who would provide liaison with communities, and allocate the resources necessary for the effective implementation of their work.

Long-term support is needed for institutionalising participatory approaches through transformation of public agencies and NGOs into strategic, enabling institutions. This will require: a policy framework supportive of a clear role for local people in development; strong leadership committed to the task of developing organisational systems, capacities and norms; long-term financial commitment and flexible funding policies; negotiation between competing interests and perceptions; creative management to implement effectively; an organisational climate in which it is safe to experiment; and a flexible, integrated field-based training programme in participatory inquiry, over a sustained period.

Local institutions should be involved wherever possible since, traditionally, such institutions have the capacity to manage local resources and to resolve conflicts over competing resource users. Work needs to be done to identify these institutions and the role they play in wildlife management.

- *Collaborative co-operation*

Whilst communities themselves should be empowered to take a leading role in determining, evaluating and implementing wildlife conservation initiatives, the roles of government (both local administrative and national departmental), NGOs and the private sector are crucial. They will need to facilitate and support community-based processes to identify needs and priorities, assess options, negotiate difficult trade-offs within and between communities and build consensus on agreed approaches. These processes of evaluating options for wildlife resource and land-use management represent no more nor less than sensible planning necessary for sustainable development. Furthermore, to ensure effective collaboration and co-operation between different disciplines, other professionals working within natural-resource management, e.g. administrators, foresters, range managers and agriculturalists, need to understand the principles behind community-based wildlife management.

It should not be assumed that only experts have a role in planning exercises. Governments, donors and others have much to learn from what communities are doing. They all need to learn the limits of their own capacity. Top-down planning, determined by outsiders, denies local communities the opportunity to contribute their own local knowledge.

A number of points can be identified which might help to bring governments, donors, planners and people closer together (see Box 31).

Unilateral action can compound existing problems and destroy the very resources that need to be conserved. Working with one stakeholder group only should be avoided, and support should be provided only for activities which are the product of co-ordinated planning.

As far as is possible national organisations should take a lead and play a co-ordinating role in projects where they are involved. For example, an organisation could set up an informal forum for participating donor agencies. This is not to suggest that organisations should strive to have any particular authority to control or veto activities, but more that they should assume a facilitating role. Through concerted action, all donor support can benefit from economies of scale, and complement rather than duplicate each other's work. Together, donors will be able to have greater influence on policy and practice at national as well as local levels. By taking a unified stand, donors can avoid independent and ill-considered actions by other parties.

**Box 31: Integrating key actors and community wildlife management**

1. Identifying and planning community wildlife management initiatives should not be an external exercise, undertaken in offices remote from the area concerned. To be successful such initiatives need to be developed by the stakeholders. Responsibility for implementation, particularly of conservation and development measures, should, whenever possible, be devolved to local people.

2. Governments need to provide a favourable institutional setting. Extreme care should be taken in seeking or encouraging high-level (e.g. head of state) patronage, since it can undermine continuity in implementation.

3. Build on:

   - indigenous, existing systems of local knowledge, land use and planning, taking care to retain their diversity;
   - existing initiatives that work and have local approval/support;
   - the experience and expertise of other sectors, NGOs and individuals.

4. Build, support and strengthen the capacity of local government and community institutions to facilitate community wildlife management, and other common property resources such as land, water, pastures and forest products. Avoid setting up complex administrative structures which may collapse once external support is withdrawn. Avoid circumventing or deliberately undermining existing or accepted administrative or decision-making structures.

5. Avoid relocation of people and the denial of rights of access and use of resources. Ensure that access is guaranteed and that there is negotiation of 'use regimes', 'offtake levels', etc.

6. Avoid creating dependence on large amounts of external funding which can disappear when support is withdrawn. It is rarely sustainable, and can frustrate or swamp locally-generated financial resources.

7. There needs to be long-term commitment on the part of governments, donors and other organisations offering technical and financial support.

8. Establish procedures for the equitable distribution of benefits amongst all community members. Avoid favouring elites, influential groups or individuals, etc. Remove bureaucratic blocks to the flow of benefits.

- *Community participation*

  The participation of local people in design, planning, implementation and evaluation is an essential element of any community wildlife conservation programme. This needs to be built into the project from the outset. The participatory process must include all interest groups, or stakeholders, in a way that enables them to feel they are pursuing their interests effectively, and seeing the benefits of what they are doing.

  Relations between officials and the community need to be on an equal footing. This requires considerable commitment and effort by all parties, including

donors. Organisations could contribute to the speeding-up of this process by providing training in participatory working methods.

Participatory techniques for analysis, planning, implementing, monitoring and evaluating development activities are being increasingly utilised by governmental and non-governmental organisations operating at local level. Participatory Rural Appraisal (PRA) describes one group of a growing family of methods and ways of working which enable local people to share, enhance and analyse their knowledge of life and conditions, to plan and to act. These approaches, if facilitated by outsiders, involve self-critical awareness of their own attitudes and behaviour towards the people with whom they work.

PRA and closely-related approaches such as Méthode Accélérée de Recherche Participative (MARP) have proven effective when developed in community wildlife management contexts. They are based on the assumption that: (a) the participation of local people is a fundamental ingredient in successful project planning; (b) indigenous knowledge, traditional institutions, and local technologies (i.e. grass burning) have a role in wildlife resource management; and (c) supported initiatives do not go beyond the capacity of communities to plan, manage, and control activities (see Annex III).

Many of the techniques employ diagrammatic and visual work. By creating and discussing a map, model or diagram, all who are present - insiders and outsiders alike - can see, point to, discuss, modify and refine conceptual representations, sharing in their creation and analysis. Non-literates are not excluded; everyone has visual literacy which allows them to participate actively in the process.

- *Human-resource development*

Community management of wildlife resources is a relatively new policy objective in many countries. It cannot be taken for granted that staff within existing wildlife conservation administrative structures, often with natural science training, understand fully the concept of community participation, or the means by which it can be achieved. It will be necessary to provide training to extension staff, project personnel, community groups, institutions and individuals that encourages a change of attitude towards more actively participatory processes. Organisations could support training in community development skills, appropriate participatory methods (PRA and MARP), conflict-resolution techniques, traditional wildlife management systems, and management and financial skills.

The major goal of human-resource development in this area would be to develop, with community members, workable participatory approaches to enhance the ability of communities to plan and implement their own management initiatives. As noted above, long-term support for institutionalising participatory approaches is needed to produce the cadre of effective practitioners necessary. It is not sufficient to conduct one-off training exercises and assume that the job

is done. Specific steps in the support of training for the kind of institutional transformation outlined above would include:

- review of existing training practices of target organisations and identification of areas for redesigning support for participatory approaches;
- training of small teams of (mostly senior) staff - these officers are crucial in determining whether the new approach receives further testing and institutional support;
- testing the approach under field conditions;
- training, where possible by officers within the organisation, of greater numbers of 'in-house' trainers with extensive field experience - this builds a cadre of competent trainers and develops an organisation-specific training approach;
- training of large numbers of organisation extension staff and community-based practitioners.

- *Local-level planning*

There is now a significant body of experience on the application of methods of participatory inquiry for resource and land-use planning that have application where communities live in proximity to protected areas and are undergoing land-use planning exercises. A set of basic questions has been devised which can guide planners and donors in determining how to assist local communities in planning their own resource management (see Box 20 in Chapter 4). Organisations could, for example, support local-level planning exercises that take full account of local needs, perspectives and aspirations.

- *Awareness*

Conservation education has often delivered a protectionist message to communities and instructed them not utilise wildlife. New messages of community empowerment and the rights and responsibilities that come with this will be required if communities are to accept a new mandate and not be confused by contradictory messages. Traditional specialists should be encouraged to disseminate their knowledge within the communities, and organisations could sponsor non-formal awareness-raising techniques.

- *Distribution of benefits*

Community wildlife management has little chance of success where benefits are not distributed equitably among various members of the community. 'Equitable' does not mean simply an equal share for each person or household, but should entail a sharing of the benefits in a way that is commensurate with the varying sacrifices made or damages incurred in the community (for example, loss of agricultural/grazing land or crop damage by wildlife). Benefit distribution should be managed by local communities which can make use, in general, of existing local institutions.

In some cases, though, a new form of income is introduced, or income must be distributed among a broader group of communities than has been the concern historically of traditional institutions. This could arise, for example, with the exploitation of wildlife for safari hunting or the provision of external subsidies in the case of fully protected areas. Under such circumstances, communities may require assistance or advice in devising mechanisms for distributing these revenues. In addition, communities need support in their claim to substantial revenues from wildlife which are also attractive to local and national government bodies. Thus, it will also be necessary to establish procedures for, and remove bureaucratic constraints on, the equitable and effective distribution of benefits. Organisations could support the design of distribution mechanisms based on existing community institutions which are both legitimate and broadly accountable to a wide range of local interests.

- *Monitoring and evaluation*

  Effective monitoring and evaluation need to be incorporated into community wildlife projects. In the past, many projects have been evaluated only on the basis of quantitative indicators which have not reflected progress in terms of community well-being and longer-term wildlife conservation objectives. Data collected have also sometimes required specialist skills and equipment, and have been presented in ways that are not easily understood by communities.

  Monitoring and evaluation should be carried out with the participating communities assisting in the collection and analysis of data. This should reveal the extent to which human activities are having an impact on wildlife and their habitats. The information collected should be presented in ways that can be understood easily by the people who need to use it, and should help in identifying key weaknesses of projects. One practical way in which organisations could support this is by the production of materials in local languages, with a view to sharing information with communities for their consideration and future action.

## Research

From a community wildlife conservation perspective, the most important research issue is the extent to which human land use affects wildlife. In the past, research in protected areas was conducted almost exclusively by natural scientists from conservation authorities or academic or international conservation organisations. For successful community conservation it will be important to involve, as far as is practical, local people in data collection and analysis for wildlife resource monitoring. This will give communities the opportunity to identify problems and act to rectify them as they arise. Research findings can easily be fed back to communities for their consideration and discussion about land-use implications. This will also make use of the extensive knowledge about wildlife resources held in communities. This will necessitate the preparation of research in summary form and the presentation to communities of materials in local languages.

It is also essential that donor organisations should support funding of national research institutions. In the long term national research capacities must be developed to support community approaches to wildlife management. This support will allow research institutions to co-ordinate initiatives, provide policy options for government and train nationals (who may be from the communities themselves).

On the basis of the literature and experiences reviewed, it is clear that applied research will be necessary for the future development and promotion of wildlife management that genuinely involves local communities. Organisations should consider providing funds to projects for research into the following topics, in suggested order of priority:

1. Field investigation of selected existing community wildlife initiatives for testing the conclusions of this overview, with a view to making recommendations for future direction by supporting agencies.

2. The impact of human land use, including community wildlife management initiatives, on the wildlife resource and biodiversity. This would involve collaborative investigation with local people to analyse ecosystems and define workable criteria and methods for monitoring environmental impacts.

3. Economic analysis of wildlife utilisation compared with alternative resource uses within different areas from the perspective of stakeholders, incorporating various types of benefits and costs (e.g. financial, labour, land, transaction, etc.). It should identify factors influencing the relative returns from wildlife, and the trends affecting these factors. The techniques of cost-benefit analysis need to be extended and applied flexibly, incorporating insights from anthropology, sociology and participatory inquiry. This research should also include an assessment of the possibilities for making wildlife more valuable through improved access to markets, marketing, processing, etc.

4. The evolution, recent changes and current situation of community livelihood-security strategies, customary wildlife management systems and tenure regimes. This would provide insight into traditional approaches to natural-resource management and decision-making systems, and how to combine effectively the best of indigenous and 'modern' systems.

5. Stakeholder analysis within and between communities to identify the interests of different groups and individuals in different resources and seasons, and the recent history of changes in the interests of stakeholders, and in particular in the conditions of the rural poor.

6. The extent to which women are affected by changes in rights of access to wildlife resources, and the role they traditionally play in wildlife resource management.

7. Legislation and policy impact analysis, including: examples of success and failure of policy leading towards participatory community wildlife management; identification of the reasons why policies with apparent clear benefits to decision-makers fail to be

implemented by the relevant actors; adapting formal tenure systems to provide tenure security to local groups.

8. Analysis of the capacity to support community wildlife management of institutions, decision-making and conflict-resolution frameworks and their linkages, both 'horizontal' (e.g. across government, local government, sector agencies, NGOs, academics, resource user groups, consumer groups, community groups, etc.) and 'vertical' (from international level to national, sub-national and local levels, individuals and marginal groups).

9. Local-level resource assessment and land-use planning approaches. Community wildlife management initiatives will need to be established as part of a broader set of approaches to rural land-use planning and developing local sustainable development strategies.

10. Evaluation of the growing number of private agreements by tour operators and game hunters with communities. Such *ad hoc* contractual arrangements are now made frequently, allowing wildlife utilisation by operators and hunters in return for payment to communities and voluntary restrictions on the alternative use of resources (e.g. cultivation). This research will provide valuable insights into how far such arrangements are consistent with 'community conservation' principles and whether they are sustainable and equitable. Through such an investigation, it will also be possible to draw up a *code of conduct* to protect communities from exploitation, and to identify the training needs of communities for effective negotiations with outside interests.

This applied research would identify the range of conditions or 'best bet' options in which community wildlife management might succeed. Guidelines could also be developed for future participation, policy, planning and associated capacity-strengthening processes for various levels and forms of community wildlife management.

# Annex I

## Terms of Reference

### A Study on Community Based Approaches to Wildlife Management

IIED is requested to carry out the following study drawing on its own resources, its contacts in collaborating institutions overseas and other key organisations with experience in community wildlife management such as WWF and IUCN. The Terms of Reference of the study are the following:

1. Undertake a thorough literature review of projects, research programmes and local experiences concerned with community approaches to wildlife management in Africa, particularly the arid and semi-arid rangelands, also taking into account experiences in other eco-regions and parts of the world. Socio-economic and environmental issues should be fully addressed in the study.

2. Provide detailed information on the strengths and weaknesses of community wildlife projects from organisations involved. At this stage it is not envisaged that visits to projects are necessary but that the reviewer should draw on the experiences of other organisations in UK and elsewhere through collaborative networks.

3. Make recommendations on options for future ODA involvement in schemes to foster sustainable management of wildlife resources by local communities based on the above analysis of experiences, and taking into account UK comparative advantage and competence.

4. Provide a detailed outline on necessary steps to be followed to ensure full involvement of communities in wildlife management programmes.

5. Prepare a report (20-30 pages) detailing the different approaches to community involvement assessing their strengths and weaknesses.

# Annex II

# Case Studies

## 1. Project WINDFALL, Zimbabwe

Project WINDFALL (Wildlife Industries New Development for All) was launched in 1978 by the Department of National Parks and Wildlife Management (DNPWLM). The objective of WINDFALL was to reduce conflicts between human populations and wildlife and improve attitudes to conservation in communal areas by returning revenues from wildlife use in protected areas directly to neighbouring district councils. At the beginning of the project poaching was reduced; however, this situation did not prevail for very long and poaching soon returned to former levels.

The major reason for failure was that there were only indirect benefits for the people. Scope for local participation was limited, with minimal involvement in decision-making and management. Little meat found its way to the local communities and only a very small proportion of the revenues reached the district councils. Furthermore, the district councils were not instrumental in passing the money to the communities where the wildlife was originally located. The local people observed that outsiders utilised the resources, and that the social services being provided as 'benefits' were also being provided in areas without game.

*Source*: Murindagomo, 1990.

## 2. Waza National Park in Cameroon

In 1936 the colonial government set up a forest/hunting reserve. Existing settlement and herding activities were allowed within the reserve, but with restrictions on logging of trees and hunting. In 1968, the forest/hunting reserve was transformed into a park in which settlements and herding were no longer tolerated.

The planning and realisation of the Waza National Park is an example of a top-down approach. During the park's establishment, villages were forcibly resettled to areas outside the park. It was said that such action was taken because the inhabitants voted against the President during the elections! The Waza National Park Service comprises about 30 guards who live scattered throughout the villages around the park. The majority originate from other regions in Cameroon and do not speak the local language. Their main task is to control hunting and to prevent poaching, illegal herding and the collection of wood or other products in the park. The penalty can be a fine of about 3 months' salary or a jail sentence of 3 months. Depending on the seriousness of the case, the latter may be increased to 5 years. Apart from law enforcement and control, attention is also given to the maintenance of infrastructure for tourists.

It is clear that the establishment of the park has contributed significantly to conserving the rich variety of wildlife still present in this part of Cameroon. However, the continued success of the park has recently been questioned. The major threat is poaching. Local inhabitants hunt for subsistence purposes, using mainly traditional methods and with limited offtake. However, whole groups of animals are being shot by Nigerian poachers with modern weapons. They are transported by truck for sale in Nigeria. Local residents are said to be hired as guides or informants. This is hardly surprising, since the majority of people feel little motivation to promote the survival of the park and its wildlife. Its establishment has not resulted in any improvement of their situation. Instead, they have lost their right of access to pastures, agricultural land and forests, whilst suffering attacks by wild animals on livestock and crop destruction. Only a limited number of locals have benefited from the park, e.g. through employment as guides, craftsmen and waiters.

*Sources*: Drijver, 1990; Steehower, 1988.

### 3. Montagne d'Ambre National Park, Madagascar

The Montagne d'Ambre National Park has been a protected area since the beginning of the century. In 1958 it became a national park. Traditionally, the Ambre mountain was regarded by local people as a sacred site, and only minor non-timber forest products were taken from the area. As a result, the colonial authorities faced no serious problem in transforming the area into a 'protected regime'. In the 1960s and 1970s, the area experienced a high level of immigration and a significant increase in the number of market centres where a trade in commodities has flourished.

The increasing demographic pressure and dependence on markets for food supplies has increased local-level dependence on the forest. At the same time, under international and national pressure, government officials have sought to protect the park more vigorously. Local people are prohibited from entering the park and are liable to arrest and fines if found inside.

Since 1989, a new 'integrated' approach has been introduced in the Montagne d'Ambre Park area, funded mainly by USAID and WWF. Environmental education has been given high priority. Themes covered tend to be about rare birds and animals threatened by deforestation, but mention is rarely made of how people can gain from protection of the forests. Other rural development activities include the establishment of nurseries, but local interest has so far been limited.

*Lessons learnt*

The priorities of the park authorities clearly have not matched the needs of local inhabitants. Recently introduced rural development activities have been designed mainly to reduce local opposition to stricter management of the park. People have not considered the WWF activities to be much different from the previous park management regime.

*Source*: Ghimire, 1991.

## 4. Luangwa Integrated Resource Development Project (LIRDP), Zambia

In 1983, Zambia's National Parks and Wildlife Service (NPWS) convened a workshop to develop a management strategy for the area just outside the South Luangwa National Park called the Lupande Game Management Area. Two initiatives resulted from the workshop. First, an integrated resource development approach, the Luangwa Integrated Resource Development Project (LIRDP), covering the South Luangwa National Park (SLNP) and the adjacent Lupande GMA. The project involved many ministries and government agencies. Secondly, a small-scale effort, located within the Lupande GMA and operated by the Ministry of Tourism through the National Parks and Wildlife Service (see ADMADE below). Both initiatives were based on the idea that the people of the Luangwa Valley participate in decisions regarding the region's natural resources.

The original objectives of LIRDP were as follows:

- to revitalise the rural economy and manage resources;
- to develop local communities and contribute to the national economy through sustainable use of natural resources in the remote rural areas.

LIRDP was originally confined to SLNP and the adjacent Lupande GMA, but in 1988 it was authorised to work across Zambia. LIRDP's intersectoral nature involves the co-ordination of all sectors of rural resource utilisation, including agriculture, forestry, fisheries, wildlife and water development. Furthermore, the project includes programmes on women, co-operatives, road improvements, buildings and mechanical maintenance. The Zambian Government began implementation of the project in 1988 with financial support from NORAD.

The institutional organisation of LIRDP involved the creation of committees at various levels. The responsible authority was a steering committee chaired by the President of Zambia. This high level of political commitment was necessary because of the constitutional implications of the project, particularly the introduction of a revolving fund and inter-ministerial mechanisms. An executive committee, at permanent secretary level, and technical sub-committees were established within every sector (e.g. women, agriculture, forestry, etc). Through decisions made by the steering committee and the executive committee, authority was granted to operate a revolving fund. The fund's main sources of income are monies allocated to the project by the government, donor funding and public revenues raised within the project area. 60% of the fund is spent on project management and 40% is allocated to local communities.

Local-level leaders' sub-committees comprise chiefs, ward chairmen, local MPs and local administrators. These control local-level planning issues, e.g. settlement patterns, and operate as a land-use planning and decision-making agency for LIRDP.

A 1989 Review Mission (IUCN, 1989) identified various achievements: a reduction in commercial poaching, strengthening of the effectiveness of game patrols and scouts, instigation of a decentralised decision-making structure and establishment of a revolving fund. However, the review also identified several problems. There was a shortage of motivated

staff in all sectors, key administrative posts had remained unfilled and accounting procedures were inadequate. Benefits had not always reached the target community and the project had partly denied the residents their traditional rights to access wildlife and other resources.

***Lessons learnt***

LIRDP displays an inherent paradox. On the one hand it has been described as a 'people's project', aiming to enhance the standard of living of rural communities through sustainable management of natural resources. Yet, on the other hand, it is fundamentally a 'wildlife project', with the survival of wildlife as a *raison d'être*. To increase wildlife numbers in the short term has required restrictions on use by local people, while generating larger revenues through offtake by more lucrative clients.

Critics have also pointed out that the multi-sectoral approach to resource management adopted by LIRDP was far too complicated. The structure of LIRDP was such that ministries were compelled to collaborate by former President Kenneth Kaunda. Indeed, LIRDP survived primarily because of his intense personal support. As a result of the project, many may be reluctant to collaborate on future ones.

The project became a maze of regulations and committees, the latter spending much time discussing what other committees had done! The aim of the committees was to return control over resources to rural people, while at the same time promoting participation at all levels of government and society. To a certain extent this was achieved, with control over wildlife gradually being transferred to the local sub-committees.

LIRDP also provides a typical example of proper financial and economic analysis of a conservation project not being carried out before the project went ahead. Barbier (1992b) shows how the financial revenues and economic benefits of the project were not assessed and that overly optimistic assumptions about the economic viability of wildlife utilisation were made. An economic analysis revealed that revenues from wildlife utilisation would not be sufficient for the project to be self-financing for many years, highlighting the need for long-term external financing.

*Sources*: Dalal-Clayton, 1984 and 1988; Adams and McShane, 1992; Mwima, 1994; Barbier, 1992b.

### 5. Administrative Management Design (ADMADE) for Game Management Areas (GMA), Zambia

The Administrative Management Design Programme for Game Management Areas (ADMADE) originated from a small experimental project in a Game Management Area (GMA) bordering the Luangwa national park in eastern Zambia, which was originally designed to examine damage to woodland caused by elephants. Through contacts and assistance from local villages the project expanded to examine general problems of wildlife management and local livelihood strategies. Communities living in the area were given a proportion of revenues earned from wildlife use, leading to a dramatic decline in the poaching of elephants.

ADMADE was created in 1983 by the National Parks and Wildlife Service (NPWS) to manage wildlife through partnerships with local communities. The ADMADE programme now works in most of Zambia's 34 GMAs.

ADMADE endeavours to guarantee that revenues generated from wildlife resources return to local producers, in the form of employment and community development initiatives. ADMADE's objectives are:

- to provide an effective network of buffer zones for national parks and a self-sustained management programme for long-term protection of wildlife resources in GMAs;
- to work towards a closer and more co-operative relationship between the NPWS and local communities on wildlife affairs;
- to develop an improved and sustainable basis for supporting local community projects;
- to stimulate development of the entrepreneurship and skills among residents which will enable them to carry out the management of renewable wildlife resources.

More than 90% of ADMADE's current revenue comes from safari hunting and concession and hunting fees. It also depends on donor assistance to help provide certain initial investments. The earnings are paid into a Wildlife Conservation Revolving Fund (WCRF), set up to recycle revenue from wildlife utilisation. With regard to **licence fees**, the Fund retains half of these, while the remaining half goes to the National Treasury. The Fund manages all **concession fees** and income from other sources. The Fund has responsibility for collecting and allocating the money earned in ADMADE areas.

In every GMA where ADMADE operates, and where there is sufficient income from wildlife to support the costs of wildlife management, a Wildlife Management Authority (WMA) is established. The Authority's task is to adopt an annual programme of wildlife management and community development, and to approve a budget along the following lines:

- 40% for meeting wildlife management costs;
- 35% for local community development;
- 25% for the NPWS.

The wildlife management funds are supposed to be distributed monthly (this began in June 1994). At least one local chief must be a signatory on all transactions. Village scouts and other local residents employed in wildlife management-related activities are meant to be paid from these funds.

The WMA consists of chiefs, the NPWS representative, natural resource technical staff, senior government representatives, the member of parliament for the relevant WMA, and directors of commercial companies with interests in wildlife. The Authority is chaired by the District Development Secretary. The WMA is further subdivided into Wildlife Management Sub-Authorities (WMS/As), known also as Wildlife Management Units (WMUs), whose chairperson is the area's chief.

Each WMA has an officer from the NPWS, responsible for implementing the agreed wildlife management programme, and who must reside within the area and be an active community member.

***Difficulties encountered and lessons learnt***

The implementation of ADMADE has thrown up a number of issues highly relevant to the debate on community wildlife conservation which include:

1. After ten years of experience, there does not exist a clear consensus either nationally or locally as to what a community-based approach to conservation is, or ultimately what would be the logical outcome. What should be the rights of community committees and individuals with regard to natural resource management? What will be the responsibilities of not only the NPWS but also other government ministries and local councils to community committees? As there is no official policy it has not been possible to make amendments to wildlife legislation to support a community-based approach.

2. Local decision-making bodies have no government or legal authority. As a result, the legitimacy of decisions taken by communities is questioned, and the programme undermined.

3. Local councils starved of revenue look upon ADMADE revenue with envy, and believe they have a legitimate claim on these revenues.

4. ADMADE has been unable to develop and present accurate information on game populations, to inform community decisions, set game quotas, etc.

5. Many GMAs are now classified as 'depleted' and do not have sufficient numbers of wildlife to sustain hunting. Without sufficient revenue the ADMADE approach cannot be adopted. Donors and others are unwilling to invest in regenerating wildlife in these areas because there is no adequate cost-benefit analysis on land-use options in these GMAs.

6. The programme has been unable to distribute revenues effectively, leading to the demoralisation of staff lacking operational funds, and hostility from village game scouts, who have not been paid for months.

7. The licensing system is complex, and problems exist in its implementation.

8. There is a lack of expertise among ADMADE staff in participatory approaches to rural development which would enable communities to play an active role in wildlife management.

A partnership between local communities, ADMADE, the NPWS, USAID and the World Wide Fund for Nature is presently addressing these weaknesses.

*Sources*: Adams and McShane, 1992; Lewis and Carter, 1993; Mwima, 1994; Lewis *et al.*, 1990; Tilley, pers. comm.

**6.- The Zambia Wetlands Project (ZWP)**

The Zambian Government identified conservation and management of key wetlands as a priority in 1983. In 1986, a consultative workshop was held which led to the establishment of the WWF-ZWP. The long-term objectives of the project are the conservation of wetland natural resources and enhancement of their natural productivity, together with the improvement of the standard of living of the wetlands local communities through sustainable utilisation of natural resources.

The ZWP is confined to the Kafue Flats in the Southern and Central Provinces and the Bangwelu Basin in the Northern Luapula and Central Provinces. The Kafue Flats are of major importance for hydroelectric power and irrigation, whilst both areas are important for fisheries, livestock, wildlife, tourism and hunting.

The ZWP was initiated in 1986 and is expected to run until mid-1994. By then, it aims to be fully integrated into NPWS and operated through ADMADE (see Case Study 5). It has adopted an integrated approach to wetlands management and community development and follows the ADMADE arrangement very closely, especially at provincial/regional and local community levels. Each of the two wetlands has been divided into Wetlands Management Units (WMUs) with subsidiary Community Development Units (CDUs). CDUs facilitate the integration and participation of local communities through elected membership and are responsible for determining and prioritising community needs and recommending projects for support.

The ZWP has funded the development of revenue-generating activities, including campsites, grinding mills and shops. Wildlife (zebra and lechwe) cropping schemes have been established. Funds have been provided to schools and rural health centres. Training has been provided to game scouts at village level and to CDUs and WMAs in financial management and administration. Research activities have been carried out to assess population trends in collaboration with the Universities of Zambia and Cambridge.

***Lessons learnt***

The ZWP continues the approach of top-down development schemes which fail to address real community needs and existing resource management systems. Attempts have been made to include education and training components and to involve local communities in the development of land-use plans. It is questionable, however, whether these attempts address the communities' real needs or whether they have been tailored to promote the achievement of ZWP's objectives.

Problems have been experienced in securing the release of funds, and hence there have been delays in implementation at a local level. Links with local government have been poor, indicating that WMAs need to be further integrated into the government system.

As a result of the neglect by the previous government of local development needs in the area, communities tend to be suspicious of planned intervention and are unwilling to participate in project activities.

The number of project staff provided has also been inadequate, e.g. too few community facilitators who could provide a grassroots extension service. Although most of the communities are aware of the aims and objectives of the project, this has not necessarily been a result of the extension network.

A funding shortage occurred since funds were provided under a Debt for Nature swap and the devaluation of the Kwacha resulted in substantial losses. However, the project is now in the process of being extended for two 2-year phases to July 1988. A final report on the Transitional Phase to mid-1994 is in preparation.

*Sources*: Kiss, 1990; ZWP-WWF Quarterly Report, Apr.-June 1993; Crutchley, 1991.

**7. Amboseli National Park, Kenya**

For centuries the Amboseli region had been used by the Maasai and was of crucial importance to their herding system, being the main area where water and green pasture could be found during the dry season. In the 1960s, an alliance developed between the government, nature conservationists and representatives of the tourist industry, resulting in the establishment of four national parks, including Amboseli. The Maasai lost their grazing rights and access to the area, while the major benefits from tourism went to the central government in Nairobi. A small part of these benefits was given to the district council, which was regarded as an indigenous council representing the Maasai. However, the Maasai never received any share of it.

In 1977, a programme was established by the Government of Kenya's Wildlife Conservation and Wildlife Management Department, with part-time technical assistance from the New York Zoological Society. It aimed to settle the conflicts between the local people and nature conservation objectives in and around Amboseli National Park (499 $km^2$) and to compensate the Maasai for lost access to water and forage for their livestock. The programme assumed that the Maasai would become joint owners of areas around the park and that they would organise themselves into 'communal cattle ranches'. The programme would provide benefits to these group ranches on condition that their owners assisted in the conservation of wildlife by combatting poaching and tolerating encroaching wildlife. The main elements of the programme were funded by the World Bank under the more extensive 1976 Wildlife and Tourism Project (US$37 million). Facilities provided included:

- construction of a water pipeline system to supply areas outside the park boundary for livestock watering;
- payment of a compensation fee to the Maasai for lost access to the park and for grass consumed by wildlife outside the park;
- development of camps and tourist circuits on Maasai land outside the park; and
- return of lodge royalties to the district council to help to pay for construction of schools and community centres and the provision of health services.

Progress during the first three years was encouraging, but after 1980 problems began. Payment of financial compensation was delayed and the water supply system broke down owing to a complete lack of maintenance. In 1983, the agreement to pay financial compensation was withdrawn by the government without explanation. A school was situated in an unpopular location and tourist activities did not develop. Because government commitments have not been honoured, the Maasai still use springs in the park to water their livestock.

***Lessons learnt***

People should participate on the basis of sound motivation and not on the basis of receiving large financial advantages which disappear as soon as donor support is withdrawn. The Amboseli project could have benefited from full-time assistance in community relations, especially when the technical systems were not functioning.

Negotiation of agreements relating to resources should be undertaken with the direct users of the resources, together with local elites and government officials. The active participation of direct users should ensure that their priorities (in terms of social and cultural values) are addressed. The Amboseli project treated the Maasai as 'beneficiaries', and they were not able to make valuable contributions to the design of the programme.

The advantages and rights of the local population that are covered by or foreseen in a resource management agreement have to be based on a realistic assessment of the carrying capacity of the ecosystems.

The responsibility for the implementation of the conservation and development measures should, whenever possible, be devolved to the local people. The decentralisation of decision-making and management responsibility increases their security in terms of rights and gains. In order for rights, benefits and responsibilities to be gained by local people, the administrative context of a project needs to be thoroughly analysed.

*Sources*: Drijver, 1990; Brandon and Wells, 1992; Lindsay, 1987; Talbot and Olindo, 1990.

**8. Nazinga Wildlife Utilisation Project, Burkina Faso**

The Nazinga Wildlife Utilisation Project was established on communal lands close to Sissili Forest Reserve. It was implemented by the African Wildlife Husbandry Development Association (AWHDA), a Canadian non-profit-making organisation, on behalf of the Ministry of Environment and Tourism. Funding was provided by CIDA (US$3.1 million between 1979 and 1989), with the government contributing land and salary support.

The original objectives of the Nazinga project were to '... research, design and develop rational utilization of the wildlife resources in the Nazinga area, in order to increase the resources for the profit of the local people ...'. This involved the establishment of a central meat-producing game ranch and a multiform land-utilisation scheme that involved the ranch, surrounding village zones, and the nearby Sissili Forest Reserve.

The ranch was established in 1979. It was considered an exercise in rural development, through which local residents would benefit from a dependable supply of game meat while at the same time conserving biodiversity.

The original idea for the Nazinga Game Ranch came from two resident expatriates who were familiar with the area and the people. Prior to project implementation, 6 years were spent discussing the idea with the government and persuading the local communities to accept the project. Thus, up to a point, the local communities were involved in the decision to commence the project, and agreed to accept the authority of the designated project management and the project design. However, they were not involved directly in project management or implementation except as employees.

Advocates of the project stressed that it would help the communities to regain access to and control over the wildlife resources in their areas and would also mobilise funds and resources for community development.

Since 1989, an IUCN programme has begun to reorganise village-based wildlife management in a broad area around Nazinga and the nearby Po National Park in a 'Po-Nazinga Management Zone'. The Burkina Faso National Conservation Strategy includes proposals for 5 additional game ranches modelled on Nazinga. However, the AWHDA-supported project at Nazinga has ended, giving rise to some uncertainty regarding the future management, direction and sustainability of the overall programme.

***Lessons learnt***

A favourable legislative environment that takes into consideration the socio-economic status of the local communities and the ranch objectives should exist prior to project implementation.

*Sources*: World Bank, 1993; O'Donoghue and Yaro, 1984; Lungren, 1990.

**9. Community Conservation in Tsavo West National Park, Kenya**

The Tsavo West National Park Community Conservation Project was initiated in 1988 by the African Wildlife Foundation (AWF), as part of the 'Protected Areas: Neighbours as Partners' Programme. It aimed to address the problem of Maasai livestock grazing in the park. Funded by USAID, it involved local communities in the conservation of protected areas.

The project also aimed to restore relations between government authorities and local communities. These had gradually deteriorated over a number of years, mainly as a result of various attempts to keep livestock out of the park by arresting and fining local herders. Attempts were made to solve the grazing problem through dialogue rather than through fines and detention. AWF brought together the local people, park authorities and district officials to discuss alternative grazing schemes and the development of income-generating projects. The local communities agreed to remove their cattle from the park in 1990. Wildlife committees were established from amongst the local communities to assist in the removal of livestock from the park.

Despite initial successes, the Maasai are again grazing livestock in the park. During the drought of 1991, Kenya Wildlife Service (KWS) allowed limited grazing within the park. However, when the permission expired, the livestock remained in the park. Negotiations to resolve this problem are currently under way.

As a result of AWF's experience in Tsavo West, KWS formed a joint AWF/KWS team to design an overall community conservation programme for KWS. This led to the establishment of a formal Community Wildlife Service (CWS) unit within KWS. USAID is supporting the development of the unit under the Conservation of Biodiverse Resource Areas project (COBRA). The unit still constitutes only a small fraction of the overall programme of KWS. Community conservation is still a relatively new approach in Kenya, and it will take considerable time and effort to change the way park personnel view local people, and *vice versa*.

*Sources*: Barrow *et al.*, 1993; USAID, 1993.

**10. The Aïr-Ténéré Conservation and Management of Natural Resources Project, Niger**

Project activities began in 1982, and are centred around the Aïr-Ténéré National Nature Reserve, which covers 77,360 km$^2$ (core area 12,806 km$^2$) of arid lands on the southern fringes of the Sahara Desert. The project has been implemented by the Service of Wildlife and Fisheries of the Ministry of Agriculture and Environment, and funded by WWF International and IUCN. Funding totalled US$580,000 for 1982-5, and US$2.7 million for the first stage of the integrated project phase (1987-90). The area covers about 77,000 km$^2$, contains a wide variety of flora and fauna and is home to the Tuareg, who have a benevolent attitude to wildlife. Only 12% of the entire area has been set aside as a wildlife sanctuary on land that was rarely used by the local population. The people used to hunt for meat, but nowadays wildlife has become so rare and inaccessible that it is no longer profitable.

Project activities have included prevention of poaching, control of tree cutting, surveillance of tourism, a public awareness campaign and various research activities. Development efforts have included the promotion of techniques for woodless house construction, the introduction of fuel-efficient cooking stoves and the establishment of two tree nurseries. Dams for flash flood control were well received and several hundred have now been constructed.

Since the reserve was established, wildlife populations appear to be gradually increasing. Villagers have benefited either directly or indirectly from the dams, but efforts to restore pastures have had limited success. The project has a positive image amongst the people living outside the reserve, and some communities have requested project activities for their own villages.

In 1992, WWF and IUCN declared a temporary suspension of activities because of the political unrest experienced within the region.

***Lessons learnt***

The project is unusual in that there are relatively few people in the area and pressure on land and natural resources is minimal. Whilst people's involvement with the project has generally been for employment, with limited participation in decision-making, the project appears to have made a promising start.

*Sources*: Brandon and Wells, 1992; Newby and Wilson, 1993.

**11. Lake Mburo National Park and Community Conservation Project, Uganda**

During the establishment of Uganda's Lake Mburo National Park in 1983, the Bahima pastoralists were excluded from access to pastures owned formerly by the Ankole king of the area, which they used as emergency drought reserves, and Beiru farmers lost their arable land. No steps were taken either to compensate the communities or to provide them with some form of benefit from the park. Recent studies have shown that wildlife continues to damage crops, empty the watering holes, bring disease and compete for grazing pastures. Consequently, communities have developed consistently negative attitudes towards the park.

The current capacity of the park to provide benefits to communities is limited by its low revenue. However, in 1991 the Lake Mburo Community Conservation Project was established by the Uganda National Parks with funding provided by SIDA (through the Regional Soil Conservation Unit, Nairobi). It is implemented by the African Wildlife Foundation and is planning to share 10% of park revenues with local communities, beginning in 1996.

*Source*: Barrow *et al.*, 1993.

**12. The Inuit of Clyde River, Isabella Bay, Eastern Baffin Island, Canada**

The bowhead whale population in the Davis Strait-Baffin Bay Region was severely depleted by commercial whaling during the 18th and 19th centuries. While whaling had ceased by 1915, the population, once numbering 11,000, has not recovered and now numbers about 250 whales. The Inuit have a centuries-old tradition of hunting the bowhead (*Balaena mysticetus*), also known as the Greenland or 'ice' whale, and, apart from its value as part of the subsistence economy, the bowhead plays a very important role in their culture. The Inuit want to hunt the whale once the population has recovered, and are anxious to play an active role in its conservation.

A chance meeting in 1979 between a scientist and an Inuk hunter from Clyde River on the east coast of Baffin Island led to development of a co-operative, long-term bowhead whale research programme in Isabella Bay involving the Hunters and Trappers Association, the World Wildlife Fund (Canada) and federal and territorial governments. Isabella Bay is about 120 km south of the community and is an important feeding and socialising area for bowhead from August to October. Isabella Bay is well known to the Inuit as Igalirtuuq and they have a great deal of knowledge of the bowhead and the marine life of Baffin Bay. The entire community of Clyde River, including elders and children, became interested in the project.

In 1988, the community met and decided to develop a conservation plan for Isabella Bay. The Igalirtuuq Steering Committee of WWF (Canada) and government agencies, submitted a proposal to government with the objectives of:

- protecting the bowhead whale and its cultural habitat at Isabella Bay from human disturbance and pollution;
- encouraging scientific research and conservation action at Isabella Bay and the surrounding region to aid in the recovery of the bowhead whale;
- protecting an important cultural resource;
- providing for the direct involvement of Clyde River in decision-making and in the implementation of the conservation plan.

Following several years of discussion and review of conservation options with government officials, regional Inuit organisations and neighbouring communities, the Igalirtuuq Steering Committee concluded that a National Wildlife Area should be established at Isabella Bay and that this area would in turn form the core of a UNESCO Biosphere Reserve. In 1993 the community held a plebiscite on the proposal and 93% voted in favour of the proposed conservation measures, paving the way for their formal approval. Plans have been developed which will ensure the direct participation of the community in the management of the National Wildlife Area and the Biosphere Reserve once they have been formally established.

*Source*: Julian Inglis, pers. comm.

**13. Wildlife Extension Project (WEP), Kenya**

WEP was centred around the Loitokitok Division, Kajiado District near Amboseli National Park in southern Kenya. The northern and eastern boundaries of the 4,626 km$^2$ project area are Chyulu Hills and Tsavo West National Park respectively. 30,000 people live in the area. WEP was designed and managed by an independent expatriate zoologist with a social science background. It worked closely with the Regional Game Warden and other government representatives, but there was no formal government involvement. Funding was provided by several sources, with the majority of support coming from the African Wildlife Leadership Foundation (now African Wildlife Foundation) and UNESCO. The annual budget was approximately US$50,000.

WEP drew on the philosophy of Paulo Freire, and was developed to follow a bottom-up approach. The project assumptions were that the contribution of people to conservation would depend on how much they participated; and that people would contribute if they benefited. It tried to establish a community-based participatory approach to wildlife management. This involved taking personal and social responsibility to collect information, reflect on and analyse problems, apply indigenous knowledge and skills and organise action groups to practise conservation on farms and ranches in wildlife areas. This included taking action to solve problems associated with wildlife as well as to develop economic and other benefits from wildlife and natural resources. It required maintaining dialogue and co-operation with others involved in conserving and using wildlife. Community participation was to act as an empowerment process through which individuals and groups would develop self confidence and the competence needed to solve local problems and develop potentials.

The project never realised its full potential, mainly because of logistical problems. Poor roads and a vast implementation area meant that only occasional visits could be made to certain areas. Conflicts arose between the WEP participatory method and traditional Maasai society. Expatriate volunteers were expected to serve as the link between the project and the community, but they were not easily accepted in the Maasai community. Traditionally, Maasai family groups make decisions about the management and utilisation of natural resources independently, whilst WEP encouraged them to organise and manage their resources as a community group. The Maasai have also been deprived increasingly of their prime grazing lands over a long period of time, and have become preoccupied with survival in a region which suffers periodic drought. They are therefore unable to give priority to long-term conservation tactics, such as those promoted by WEP.

The substantial investment in time needed to participate in WEP workshops and seminars meant that only certain members of the Maasai society attended. The lack of understanding of the dynamics of the Maasai community led to the exclusion of the influential elder members of the community from the activities. As a result, the project did not comply with traditional Maasai community governance.

WEP is an example of a project implemented by a NGO that followed a bottom-up approach, yet its impact has so far been insignificant. Participatory approaches do not necessarily guarantee a significant impact. Such approaches are not appropriate in the still largely traditional and stratified Maasai society.

***Lessons learnt***

A more appropriate mix of negotiations with traditional leaders on major issues was needed. Traditional authority must be respected and yet be responsive to the opinions and motivations of individual community members.

*Sources*: Berger, 1993; Lee, 1992; Brandon and Wells, 1992.

**14. The CAMPFIRE Programme, Zimbabwe**

CAMPFIRE (Communal Areas Management Programme for Indigenous Resources) is a philosophy of sustainable rural development that enables rural communities to manage and benefit directly from indigenous wildlife. The programme applies to the areas of the country under communal tenure conditions, as opposed to private land or land under direct state management. It is essentially an entrepreneurial approach to development, based on wildlife management, which enables rural people to satisfy many of their material and other needs.

CAMPFIRE's crucial resources are people and wildlife. Its approach is based on the firm conviction that 'rural people are perfectly capable of articulating their own needs and problems, of reaching consensus decisions through reasoned argument, of evaluating the options and resources available to them and of managing and improving their own lives'.

The CAMPFIRE approach is a lengthy and continually evolving process. Although the permissive legislative framework was provided in 1982, the development and implementation

of the programme took several years and it was only in late 1988 that two district councils were granted 'appropriate authority' status. By 1990 CAMPFIRE was working in 12 districts, and by September 1994 they had extended their activities to 22 districts.

CAMPFIRE is often held up as the best example of community-based resource management and development in Africa. Realising some of the problems in the ways wildlife and other resources have been managed, the Zimbabwe Government passed an amendment to the Parks and Wild Life Act in 1982 which enables districts and local communities to gain access to benefits from wildlife resources. The basic principle behind CAMPFIRE is the re-empowerment of local communities through providing them with access to, control over, and responsibility for natural resources. A second principle is that local communities should have the right to make decisions regarding those natural resources and any activities that affect them. And a third principle is that local communities should receive the benefits from the exploitation of natural resources.

CAMPFIRE is being implemented by the Department of National Parks and Wildlife Management (DNPWLM), in collaboration with the Centre of Applied Social Sciences (CASS) at the University of Zimbabwe, the WWF Multispecies Animal Production Systems Project, the Zimbabwe Trust (a development NGO) and the CAMPFIRE Association, which was formed by district councils with appropriate authority status following the rapid geographical expansion of the CAMPFIRE programme, with the objectives of lobbying for their interests at central government level and providing co-ordination services to their members. The Association was incorporated into the collaborative group (DNPWLM, CASS, WWF and the Zimbabwe Trust) and, in 1992, made the lead organisation and chair of the group.

The programme commenced over the period 1986-8, involving DNPWLM and its partners in dialogue with selected district councils and communities. The councils and communities chosen for initial approach were those with high *a priori* chances of success, i.e. communities with considerable wildlife resources and district councils with such communities. This involved two types of approach: (a) to district councils first and then, through these, to communities; and (b) to selected communities first and then to their respective councils subsequently.

Implementation has followed the following main steps:

- initial dialogue and consultation with communities/councils;
- agreements, council resolutions and applications to DNPWLM for appropriate authority status;
- creation of council and community wildlife committees;
- extension advice to councils on contracts with private operators;
- contracts with private operators, revenue generation and end-of-year revenue distribution to communities;
- training at council and community levels on fiscal and natural-resource management;
- further building up of council-level wildlife management activities;
- building up of community interest in wildlife activities.

CAMPFIRE seeks to ensure that wildlife revenues are provided to producer communities. These can be considerable: US$300,000-500,000 per year per council in some areas, mostly through contracts with private operators of hunting and photographic safaris.

CAMPFIRE has undoubtedly been a success in some areas, notably in the domains of:

- re-awakening appreciation of the value of wildlife by local people;
- eliminating or drastically reducing poaching;
- reducing complaints about problem animals;
- supporting the emergence of local environmental structures;
- improving environmental conservation practices;
- using wildlife revenues for food security in times of drought;
- initiating local land-use planning;
- increasing household revenues;
- funding schools and clinics;
- providing grinding mills and other community infrastructure.

However, the programme has also faced constraints. One of the main obstacles to progress has been the unwillingness of councils to devolve real responsibility and power to more local communities to manage their own wildlife resources and, above all, to pass on to local communities the full amounts of revenue generated from wildlife management. This is not surprising, as central grants to local government are declining, and wildlife revenue is one of the main ways in which local authorities can fund their development programmes. It has meant that many councils have ignored ministerial directives and DNPWLM guidelines on income distribution. They have appropriated the bulk of the revenues generated by their producer communities, made promises of revenue distributions which they have not kept, marginalised any participation in wildlife planning and management by communities and failed to develop training programmes in management for their producer communities.

The result has been ignorance of or hostility to the CAMPFIRE programme, mistrust of councils, increasing intolerance of wildlife and a continued lack of communal environmental controls. These effects are not the fault of the programme's principles but the result of a lack of proper implementation.

Further, the administrative structure of local government is a modern imposition, with elected representatives. Traditional leadership may or may not be incorporated by the elective process. Delineation of village and ward boundaries does not necessarily correspond to traditionally-evolved communities, nor to discrete ecological criteria. Councils typically preside over areas which are ecologically heterogeneous, with wards of high human density and low wildlife populations combined with wards of low population density and larger wildlife populations. In the first category, wards have low wildlife revenues and high development demands but pay little of the costs associated with wildlife. In the second category, the opposite applies.

A number of fundamental lessons have been learnt by CAMPFIRE which are shaping present-day initiatives.

The CAMPFIRE programme seeks to establish proprietorial communal property regimes over wildlife and other natural resources. While the definition of *what a community is* remains problematic, and the number of relevant variables so diverse as to render a 'blueprint' model of an ideal communal management regime difficult, three characteristics are necessary components of a communal property regime:

- the scale (both demographic and spatial) must be small enough to provide conformity to rules largely by informal group pressure;
- the costs and benefits must be relatively evenly distributed among members; and
- sanctioned authority, linking responsibility to control capacities, must be present.

The essential institutional profile for successful management must bring together ownership, management, cost and benefit of wildlife in one unit. The proper administrative sub-units for CAMPFIRE implementation are ward and village development committees. This still links communal resource management regimes with the structures of local government. It may not be socially and ecologically ideal, but it has the advantage of carrying forward the CAMPFIRE programme within accepted structures of local governance.

The CAMPFIRE programme is driven primarily by a desire to make wildlife a competitive form of land use. Where wildlife is not competitive, it does not seek to promote this usage above others. This is an important policy stance, with an element of realism often lacking in wildlife conservation programmes. The interests of wildlife conservation are not, nationally and in the long run, served by attempting to enforce its existence in contexts where local farmers and government agencies know that it is a sub-optimal economic use of land.

*Sources*: Hitchcock and Nangati, 1992; Murphree, 1994; Zimtrust, 1990.

**15. Sacred Groves in Kenya**

Sacred groves, known as *kayas*, occur as patches of forest along Kenya's coast. They are of great biological and cultural significance to the local people. Today they are found tucked away behind tourist hotels and hidden among plantations and pastures. Sacred groves are revered and protected by customs and beliefs and are used for religious ceremonies. They are guarded by a Council of Elders which decides how the surrounding forest may be used, which trees cut and why, which herbal plants gathered, how close cultivation can come to the forest edge, and who may enter the forest clearing.

As the elders pass away, the ancient traditions regarding the sacred groves are also dying. The younger generation tends not to care so much for customs and moves away in search of jobs and better farmland. Concern for the long-term protection of the sacred groves has been voiced, and has led to their being declared National Monuments of Kenya under the Antiques and Monuments Acts. However, it remains unclear who will be responsible for their protection. Within a few months of being gazetted, part of a sacred grove on Chole Island was taken over by a foreign property developer through a dubious deal.

*Source*: Wilson, 1993.

## 16. Traditional Forest Guards in Nepal

A traditional system of forest guards, known as *shingi nawa*, existed until fairly recently in the Himalayas in Nepal. Each guard was selected by the community and had the power to enforce communal rules concerning the controlled use of forest resources and to supervise grazing and cattle movements. The job was taken very seriously and *shingi nawa* was a highly respected member of the community. He even had the right to fine people who committed serious offences against the environment, such as the felling of many trees without permission.

A growing demand for firewood, resulting from population increases, and an escalation in tourist activities began seriously to affect the forest cover. In 1974, in an attempt to protect the forest, the government established the Sagarmatha National Park. Whole communities were relocated and new rules strictly enforced through a new system of government forest guards. The authority of the *shingi nawa* and the traditional rules and customs were undermined and the new park rules brought chaos. Park officials allowed villagers from one village to cut trees in areas that had been protected for religious reasons by another village.

Concern for the continuing degradation led to the development of a management plan, but it was never implemented. The local people were not involved in its development. The situation continued to deteriorate until a local sherpa, sensitive to the views of the local communities, became warden of the Sagarmatha National Park. A new Parks Advisory Committee was set up and attempts were made to revitalise the *shingi nawa* system. After considerable discussion, its importance has finally been recognised by the park administrators. The system now once again operates in every village in the park.

*Source*: Sherpa, 1993.

## 17. Gendered Resource Use, Gola Forest, Sierra Leone

The Gola forests in eastern Sierra Leone constitute one of the last remaining areas of rainforest in the country, and contain three forest reserves: Gola North, Gola West and Gola East. There are plans to concentrate conservation efforts on Gola North, the largest of the three. Mende-speaking people live in a number of villages near the edge of the reserve, in an environment that consists of high forest and cultivated and fallow land. Local livelihoods are based on annual cropping according to a rotational bush fallow method, the cultivation of tree crops such as cocoa and coffee and the collection of a wide range of non-timber forest products.

The Mende make use of a wide range of wild plant products to meet subsistence and cash needs. Men and women use different resources. This arises partly from the way work and responsibilities are divided. Women collect wild fungi, leaf vegetables and oil seeds which provide ingredients for the sauces in their diet. The men help to collect bush yams and other 'hunger' foods to substitute for rice or cassava when these are scarce. Constructing kitchens, rice barns, baskets, mats, fish traps and other household items important for daily life constitutes 'men's work', and men collect the raw materials involved. Wild products can

make significant contributions to both men's and women's incomes. It is the younger wives, single women and young men who rely most heavily on these income sources.

Contrary to previously held assumptions, the Mende collect most of their frequently-used wild plant products from fallow land and cultivated areas rather than from the high forest. Plants are also affected by different sorts of tenure arrangements. This can lead to insecure access, especially with the recent moves towards a cash economy. For example, swamp fallows are the source of thatch for roofing and numerous fibres and leaves which women consider invaluable for wrapping and tying bundles. However, the close dependence of women on swamp fallow rarely figures in men's decisions to convert swamps to other uses, such as tree cropping and controlled rice cultivation. In the increasing competition for these wetlands, women's rights to collect wild plants are under threat.

Recently, farmers have begun to preserve trees that produce economic benefits. Such trees are subject to individual tenure, primarily by men who control tree crop farming. As a result, they preserve trees that they value, but cut down those trees valued by women (e.g. fruit, oil seed and medicine trees).

***Lessons learnt***

Women's experiences in resource management and use cannot be understood outside the context of gender relations, which are in turn affected by cultural, social and political processes. The policy implications of such a view are very different from the women's projects advocated by many 'women and environment' discussions. During project design, an understanding of gender relations within a particular area will identify whether joint or segregated activities are more appropriate. In cases such as the Gola Forest, it is better to address women's and men's interests simultaneously than to isolate any one particular group, and this may help to avoid benefits being captured by the more influential (often men) members of the community.

However, the Gola Forest case study suggests that natural-resource management issues can be intertwined with deeply personal and political processes. They undergo constant change as commercial pressures and wider social changes permeate through to local people in rural areas. It is questionable whether an outsider can ever hope to understand fully the dynamics of such communities and, consequently, whether the interventions that are designed by outsiders are ever likely to work as expected.

*Sources*: Leach, 1991; Davies and Richards, 1991.

# Annex III

# Participatory Rural Appraisal Methods

In recent years there has been a rapid expansion of new participatory methods and approaches in the context of agricultural development and research. These have drawn on many long-established traditions that have put participation, action research and adult education at the forefront of attempts to liberate and emancipate disempowered people. To these, participatory inquiry may apparently bring little that is new. But to the much wider body of development programmes, projects and initiatives it represents a significant departure from standard practice. Some of the changes under way are remarkable. In many government and non-government institutions extractive research is being superseded by investigation and analysis by local people themselves. Methods are being used not just for local people to inform outsiders, but also for people's own analysis of their own conditions. This is particularly important in community approaches to wildlife management.

The interactive involvement of many people in differing institutional contexts has promoted innovation, and there are many variations in the way that systems of inquiry have been put together.[1] This diversity and complexity is a strength. Despite the different ways in which these approaches are used, there are important common principles uniting most of them. These are as follows:

- **A defined methodology and systemic learning process:** the focus is on cumulative learning by all the participants and, given the nature of these approaches as systems of inquiry, their use has to be participative.

- **Multiple perspectives:** a central objective is to seek diversity, rather than characterise complexity in terms of average values. The assumption is that different individuals and groups make different evaluations of situations, which lead to different actions. All views of activity or purpose are heavy with interpretation, bias and prejudice, and this implies that there are multiple possible descriptions of any real-world activity.

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[1] These systems of inquiry include, for example, Agroecosystems Analysis (AEA), Beneficiary Assessment, Development Education Leadership Teams (DELTA), Diagnosis and Design (D and D), Diagnostico Rural Rapido (DRR), Farmer Participatory Research, Farming Systems Research, Groupe de Recherche et d'Appui pour l'Auto-Promotion Paysanne (GRAAP), Méthode Accélérée de Recherche Participative (MARP), Participatory Analysis and Learning Methods (PALM), Participatory Action Research (PAR), Participatory Research Methodology (PRM), Participatory Rural Appraisal (PRA), Participatory Rural Appraisal and Planning (PRAP), Participatory Technology Development (PTD), Participatory Urban Appraisal (PUA), Process Documentation, Rapid Appraisal (RA), Rapid Assessment of Agricultural Knowledge Systems (RAAKS), Rapid Assessment Procedures (RAP), Rapid Assessment Techniques (RAT), Rapid Catchment Analysis (RCA), Rapid Ethnographic Assessment (REA), Rapid Food Security Assessment (RFSA), Rapid Multi-perspective Appraisal (RMA), Rapid Organisational Assessment (ROA), Rapid Rural Appraisal (RRA), Samuhik Brahman (Joint trek), Soft Systems Methodology (SSM), Theatre for Development, Training for Transformation, and Visualisation in Participatory Programmes (VIPP).

- **Group inquiry process:** all involve the recognition that the complexity of the world will only be revealed through group inquiry. This implies three possible mixes of investigators, namely those from different disciplines, from different sectors, and from outsiders (professionals) and insiders (local people).

- **Context specific:** the approaches are flexible enough to be adapted to suit each new set of conditions and actors, and so there are multiple variants.

- **Facilitating experts and stakeholders:** the methodology is concerned with the transformation of existing activities to try to bring about changes which people in the situation regard as improvements. The role of the 'expert' is best thought of as helping people in their situation to carry out their own study and so achieve something. These facilitating experts may well come from the community, and thus be stakeholders themselves.

- **Leading to sustained action:** the inquiry process leads to debate about change, and debate changes the perceptions of the actors and their readiness to contemplate action. Action is agreed, and implementable changes will therefore represent an accommodation between the different conflicting views. The debate and/or analysis both defines changes which would bring about improvement and seeks to motivate people to take action to implement the defined changes. This action includes local institution building or strengthening, so increasing the capacity of people to initiate action on their own.

The principle of participation overarches these packages of methods. In this context, appraisal implies a process of learning leading to action. Sustainable resource management, with all its uncertainties and complexities, cannot be envisaged without all actors being involved in a continuing process of learning. Participatory inquiry can, therefore, be defined in the following way:

> Participatory inquiry is a structured methodology centred on the principle that participation is a moral right, in which multiple perspectives are sought through a process of group inquiry, developed for the specific context, and so using systemic methods to help people organise to bring about changes in problem situations that they see as improvements.

In recent years, the creative ingenuity of practitioners worldwide has increased the range of participatory methods in use. Many existed in other contexts, and were borrowed and adapted. Others are innovations arising out of situations where practitioners have applied the methods in a new setting, the context and people themselves giving rise to the novelty. The methods are structured into four classes, namely those for group and team dynamics, for sampling, for interviewing and dialogue, and for visualisation and diagramming (see Table). It is the collection of these methods into unique approaches, or packages of methods, that constitutes systems of inquiry.

Participation calls for collective analysis. Even a sole researcher must work closely with local people (often called 'beneficiaries', 'subjects', 'respondents' or 'informants'). Ideally, teams

| Methods for participatory inquiry | | | |
|---|---|---|---|
| **Group and team dynamics methods** | **Sampling methods** | **Interviewing and dialogue** | **Visualisation and diagramming methods** |
| • Team contracts<br>• Team reviews and discussions<br>• Interview guides and checklists<br>• Rapid report writing<br>• Energisers<br>• Work sharing (taking part in local activities)<br>• Villager and shared presentations<br>• Process notes and personal diaries | • Transect walks<br>• Wealth ranking and well-being ranking<br>• Social maps<br>• Interview maps | • Semi-structured interviewing<br>• Direct observation<br>• Focus groups<br>• Key informants<br>• Ethnohistories and biographies<br>• Oral histories<br>• Local stories, portraits and case studies | • Mapping and modelling<br>• Social maps and wealth rankings<br>• Transects<br>• Mobility maps<br>• Seasonal calendars<br>• Daily routines and activity profiles<br>• Historical profiles<br>• Trend analyses and time lines<br>• Matrix scoring<br>• Preference or pairwise ranking<br>• Venn diagrams<br>• Network diagrams<br>• Systems diagrams<br>• Flow diagrams<br>• Pie diagrams |
| *Source:* Pretty, 1993. | | | |

of investigators work together in interdisciplinary and intersectoral teams. By working as a group, the investigators can approach a situation from different perspectives, monitor one another's work carefully, and carry out a variety of tasks simultaneously. Groups can be powerful and productive entities when they function well, as performance and output is likely to be greater than the sum of its individual members (Steiner, 1972; Handy, 1985; Belbin, 1992). Many assume that simply putting together a group of people in the same place is enough to make an effective team. This is not the case. Shared perceptions, essential for group or community action, have to be negotiated and tested in a complex social process. Yet, in general, the complexity of multidisciplinary team work is poorly understood. A range of workshop and field methods is available to help in the formation of groups.

In order to ensure that multiple perspectives are both investigated and represented, practitioners must be clear about who is participating in the data-gathering, analysis and construction of these perspectives. Sampling is an essential part of these participatory approaches, and a range of field methods is available.

Sensitive interviewing and dialogue are a third core element of the process of participatory inquiry. For the reconstructions of reality to be revealed, the conventional dichotomy between the interviewer and respondent should not be permitted to develop. Interviewing is, therefore, structured around a series of methods that promote a sensitive and mutually beneficial dialogue.

The fourth element of participatory inquiry is the emphasis on diagramming and visual construction. In formal surveys, information is taken by interviewers, who transform what people say into their own language. By contrast, diagramming by local people gives them a share in the creation and analysis of knowledge, providing a focus for dialogue which can be modified sequentially and extended. Local categories, criteria and symbols are used during diagramming, which include mapping and modelling, comparative analyses of local perceptions of seasonal and historical trends, ranking and scoring to understand decision-making, and diagrammatic representations of household and livelihood systems. Rather than answering questions which are directed by the values of the researcher, local people are encouraged to explore creatively their own versions of their worlds. Visualisations, therefore, help to balance dialogue and increase the depth and intensity of discussion.

Local people, using the methods of participatory inquiry, have shown a greater capacity to observe, diagram and analyse than most professionals have expected. In some programmes this has led to village analysts conducting investigations without outsiders being present (Shah, 1992). Here, participatory inquiry methods become the locally-owned means to collective action.

Typically, PRA involves eight clearly defined steps.[2] An 'outside' team works with members of the local community to:

1. select a site and gain approval from local administrative officials and community leaders;

2. conduct a preliminary site visit (steps 1 and 2 include community review and a planning meeting to share the purpose and objectives of the PRA and initiate dialogue between all parties as well as full participation);

3. collect both secondary and field data (spatial, time-related, social, technical), and share information with selected communities;

4. synthesise and analyse that data;

5. identify problems and opportunities to resolve them;

6. rank opportunities and prepare land maps and resource management plans (basic work plan for all members of the community);

7. adopt and implement the plan; and

8. follow up, evaluate, and disseminate any findings.

A variety of data collection tools exists: sketch maps, transects, time and trend lines, seasonal calenders, household interview charts, institutional diagrams, problem priority

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[2] Adapted from Brown and Wyckoff-Baird, 1992.

sheets. Based on these data, the local community organises and ranks problems and opportunities as a prelude to the creation of a resource management plan.

As a PRA team begins work, it meets with community and other leaders to ensure that they support the project and perceive the potential for their control over the process. Meetings with the community as a whole are then held to explain the process and initiate data collection. Separate meetings are also held with specific interest groups (i.e. women, artisans, youths) and with individual households. This mixture of public meetings and dialogue with smaller groups makes it more likely that all members of the community will participate constructively.

A PRA team needs to be made up of people who specialise in community work and relevant technical specialists (water, livestock, wildlife ecology, zoology, botany, etc.). At least one member of the team should be a woman, and a minimum of two should be from the participating community. While PRA emphasises local participation, it must be noted that individuals from outside the society can make positive and sometimes catalytic contributions to the process. PRA is a learned skill and can be acquired by formal training or by participating with those who are experienced in the approach and method.

# Annex IV

# Institutions and Individuals Working in the Field of Community Wildlife Management in the UK

## Research and Policy Institutions

| Contact person | Institution | Address | Area of work |
|---|---|---|---|
| Professor Alan Rew | Centre of Development Studies | University College, Swansea, SA2 8PP<br>Tel.: 0792-295332<br>Fax: 0792-295682 | Research in community-based wildlife management. |
| Dr I. Swingland | Durrell Institute of Conservation and Ecology | Kent Research and Development Centre, The University,<br>Canterbury,<br>Kent, CT2 7PD<br>Tel.: 0227-475480<br>Fax: 0227-475481 | Research and postgrad training school. Main objective: integration of conservation and development through combining natural and social sciences in research, training, advice, implementation and international partnership. |
| Dr B. Dalal-Clayton<br>Dr R. Moorehead<br>Dr C. Lane | International Institute for Environment and Development | 3, Endsleigh Street,<br>London, WC1H 0DD<br>Tel.: 071-388-2117<br>Fax: 071-388-2826 | Research on community wildlife management, environmental planning, participatory inquiry, environmental economics |
| Robin Mearns<br>Dr Melissa Leach | Institute of Development Studies | University of Sussex,<br>Brighton, BN1 9RE<br>Tel.: 0273-606261 | |
| Mike Stocking | School of Development Studies | University of East Anglia,<br>Norwich, Norfolk, NR4 7TJ<br>Tel.: 0603-56161<br>Direct: 0603-592339 | Research in community-based wildlife management. Monitoring and evaluation of community wildlife projects. |
| Dr Bill Adams | Department of Geography | University of Cambridge, Cambridge<br>Tel.: 0223-333399 | Research into people and wildlife in Africa, Central America and Nepal. |
| Dr Gill Shepherd | Rural Development Forestry Network<br>Overseas Development Institute | Regent's College<br>London NW1 4NS<br>Tel.: 071-487-7413<br>Fax: 071-487-7590 | Research into community-based forest management systems, primarily in dryland areas. |

| Contact person | Institution | Address | Area of work |
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| Mr Tim Clutton-Brock<br>Phyllis Lee<br><br>Ian Hodge | Department of Zoology<br>Department of Biological Anthropology<br>Department of Land Economy | University of Cambridge, Cambridge<br>Tel.: 0223-336600<br>Fax: 0223-336676 | |
| Paul Hannon | Royal Society for the Protection of Birds | The Lodge, Sandy, Beds, SG19 2GL | Wildlife policy |
| Tim Johnson | World Conservation Monitoring Centre | 219c Huntingdon Road, Cambridge, CB3 0DL | Wildlife policy |
| Paul Goriup | BANC | 36 Kingfisher Court, Hambridge Road, Newbury, RG14 5SG | Wildlife policy |
| Alexandra Dixon | Zoological Society of London | Regents Park, London, NW1 4RY | Wildlife policy |
| David Bowles | Environmental Investigation Agency | 2nd Floor, 2 Pear Tree Court, London, EC1R 0DS | Wildlife policy |
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| Ali Ross/Catherine Barr | Greenpeace | Greenpeace House, Canonbury Villas, London, N1 2PN | Wildlife policy |
| Simon Counsell/Tony Juniper | Friends of the Earth | 26-28 Underwood Street, London, N1 7JQ | Wildlife policy |

## Implementing Agencies

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| Richard Barnwell<br>Barry Coates | WWF-UK | Panda House, Weyside Park, Catteshall Lane, Godalming, Surrey, GU7 1XR<br>Tel.: 0483-426444<br>Fax: 0483-426409 | Support for integrated conservation and development projects. Research on impact of wildlife utilisation. |
| | CARE | 36-38 Southampton Street,<br>London WC2E 7HE<br>Tel.: 071-379-5247<br>Fax: 071-379-0543 | |
| Paul Goriup | The Yankari Initiative | 36 Kingfisher Court, Hambridge Road, Newbury RG14 5SJ<br>Tel.: 0635-522925<br>Fax: 0635-550230 | Nigerian-based NGO registered as British Charitable Trust. Promotion of sustainable development in Nigerian savannah zone, especially around protected areas. |
| Keith Madders | The Zimbabwe Trust | The Old Lodge, Epsom,<br>Surrey, KT19 8NE.<br>Tel.: 0372-741237/743930<br>Fax: 0372-725604 | CAMPFIRE |
| Ken Smith | Royal Society for the Protection of Birds | The Lodge, Sandy, Beds, SG12 2DL<br>Tel.: 0767-680551 | Support to Birdlife International. |
| Georgina Green<br>Communications Manager | Birdlife International | Wellbrook Court, Girton Road,<br>Cambridge, CB3 0NA<br>Tel.: 0223-277318<br>Fax: 0223-277200 | Support and implementation of integrated conservation and development projects in areas of endemic or threatened bird species. |

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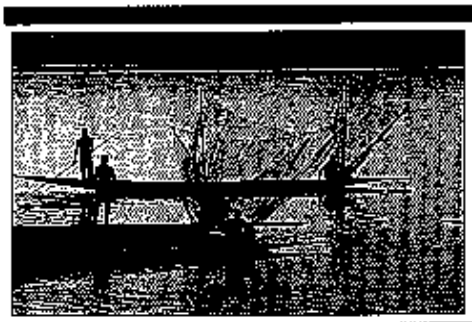
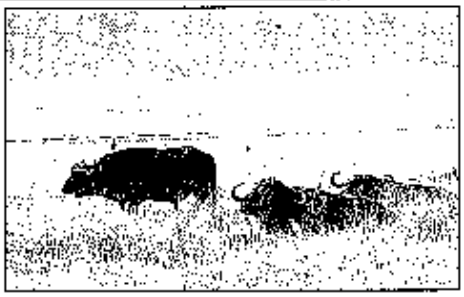
## NOTES

# NOTES





# Whose Eden?

## *An Overview of Community* Approaches to Wildlife Management

This report provides three broad principles for achieving effective participation of communities in the conservation of wildlife. Practical ways in which organisations can integrate communities into on-going projects, and work with the full participation of local producers in wildlife management are described. Recommendations are made on ways to promote community management of wildlife resources, and ten applied research topics are given for identifying the range of conditions in which community wildlife management might succeed.

The study was undertaken by an interdisciplinary team of researchers at IIED who reviewed over 100 published and unpublished documents spanning the last 15 years, covering research programmes, projects and experiences relating to community approaches to wildlife management in Africa.

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