

IUCN Species Survival Commission

Community-based Conservation in Tanzania

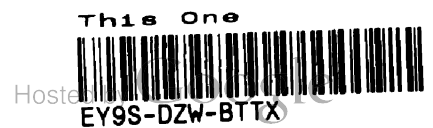
N. Leader-Williams, J. A. Kayera and G. L. Overton

Editors



Occasional Paper of the IUCN Species Survival Commission No. 15

Community-based Conservation in Tanzania



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Community-based Conservation in Tanzania

Proceedings of a Workshop held in February 1994

N. Leader-Williams, J. A. Kayera and G. L. Overton

Editors

Planning and Assessment for Wildlife Management

**Department of Wildlife
Dar es Salaam, Tanzania**

Occasional Paper of the IUCN Species Survival Commission (SSC) No. 15

**IUCN – The World Conservation Union
1996**

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This publication has been made possible by funding from the Planning and Assessment for Wildlife Management project, donated by USAID and managed by the African Wildlife Foundation and WWF Tanzania Office.

Published by: IUCN, Gland, Switzerland and Cambridge, UK



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Citation: Leader-Williams, N., Kayera, J. A. and Overton, G. L. (Eds.) 1996. *Community-based Conservation in Tanzania*, IUCN Gland, Switzerland and Cambridge, United Kingdom. ix + 226pp.

ISBN: 2-8317-0314-X

Cover design by: IUCN Publications Services Unit

Cover drawing: Jomo Kitandu

Layout by: Nigel Leader-Williams and Greg Overton

Produced by: IUCN Publications Services Unit

Printed by: Page Brothers (Norwich) Ltd, Norwich, UK

Available from: IUCN Publications Services Unit
219c Huntingdon Road, Cambridge, CB3 0DL, United Kingdom
Tel: ++44 1223 277894, Fax: ++44 1223 277175
E-mail: iucn-psu@wcmc.org.uk
www: <http://www.iucn.org>
A catalogue of IUCN publications is also available

The text of this book is printed on Fineblade Cartridge 90 gsm made from low-chlorine pulp

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PREFACE

Tanzania has long been recognised for its superb wildlife and natural resources. This reputation arises from the great variety of species, from the vast wilderness areas, and from the magnificent and varied scenery found in Tanzania. Since colonial times, Tanzania has aimed to conserve its wildlife resources using strategies that promote the gazettement of protected areas, and that control the use of wildlife outside protected areas. Tanzania has been very successful in this policy, both before and after Independence. There are now 12 National Parks, 23 Game Reserves, 43 Game Controlled Areas, and the Ngorongoro Conservation Area. These areas cover some 4%, 11%, 10% and around 0.8% of the surface area of Tanzania, respectively. Furthermore, there are around 520 Forest Reserves, which cover some 15% of Tanzania's surface. However, 3% of the surface area has Forest Reserves that overlap with protected areas devoted to wildlife conservation. Thus, 15% of the total surface area of Tanzania is devoted to wildlife in protected areas where no permanent human settlement is allowed. A further 10% of Tanzania's surface area is devoted to protected areas where wildlife co-exists with humans. If the efforts of the forestry sector are added to those of the wildlife sector, then Tanzania has a terrestrial protected area network that excludes human settlement from around 27% of the country's surface area.

Conservation policies centred on legal regimes increasingly excluded the interests of rural Africans. The measures instituted to conserve wildlife centred upon removing them from large tracts of land to establish protected areas. Resources that local people once utilised and regulated through traditional practices were removed from their control. Instead, central control was instituted through enacting increasingly exclusive wildlife laws. Thus, activities once carried out traditionally, like hunting for the pot by using bows and arrows, became illegal. Furthermore, rural people received few tangible benefits from legal forms of wildlife utilisation. Accordingly, wildlife conservation was increasingly viewed by rural communities as not actually being to their benefit. The end result of the legislative exclusion of local people has been legalised use of the country's wildlife resources by high paying foreign *tourists*, both hunters and game viewers. Furthermore, the *resident hunter* has appeared, who is part of a richer urban elite, able to afford the fees prescribed for residents. Meanwhile, the local villagers are unable to afford the fees, with the result that they use wildlife *illegally*. Only one form of wildlife use has provided villagers with any legal benefit during the period that central legislation has exerted increasing control over wildlife, and this has been through the destruction of crop-raiding animals.

Conservationists have increasingly realised the fallacy of excluding the interests of rural Africans since the mid 1970s. The price of ivory and rhino horn showed a marked increase on world markets at this time. Hence, elephants and rhinos were killed illegally in Tanzania in the 1970s, in order to supply growing illegal world markets in ivory and horn. As a major range state for both the African elephant and the black rhinoceros, Tanzania lost a very large number of elephants and rhinos to poachers during the mid-1970s to mid-1980s. The increasing loss of elephants and rhinos throughout Africa brought home the realisation to many that the protected areas were not adequately fulfilling their function. One of the major reasons advanced was that protected areas and the wildlife outside the protected areas was not providing any legal benefit to rural people. As a result, the resource was under-valued, and not effectively conserved. Furthermore, when incentives arose to earn from wildlife, such as for the price offered to villagers for shooting elephants and rhinos illegally, uncontrolled exploitation followed. Local interests were considered in only one protected area in Tanzania. Ngorongoro Conservation Area was established in 1959 with the dual mandate of protecting the interests of resident Maasai pastoralists and of conserving the natural heritage of the area. While it has not been perfectly managed over the last 30 and more years, Ngorongoro still remains the only place where rhinos can be seen regularly in Tanzania.

The upset in the delicate balance between wildlife and protected areas showed that simply protecting areas as National Parks or Game Reserves was insufficient. With poaching rampant and human populations building up outside protected areas, the issues faced by modern wildlife were increasingly related to humans. The challenge then became how best to develop a new strategy to cope with poaching and encroachment, and to provide rural people with real benefits from sustainable wildlife utilisation schemes. This change in policy began to take shape in Tanzania in

the mid-1980s, when projects were initiated around the Serengeti National Park and Selous Game Reserve that began to embrace the concept of community-based conservation.

Following the initiation of these projects, a draft *Policy on Wildlife Conservation and Utilisation* was prepared in 1989. One of the main aims of this policy was to set community-based conservation on a more formal footing. However, the policy unfortunately never progressed beyond a final draft. Thus, the need to set community-based conservation on a coherent policy footing across the different wildlife authorities, or indeed in the different projects, in Tanzania, became more urgent. Hence projects run by Tanzania National Parks, by Ngorongoro Conservation Area Authority and by the Wildlife Department, have all developed and operated within their own frameworks. Furthermore, Central Government has recently made a policy decision that a proportion of game and gate fees previously accruing to Treasury will be provided to district councils.

The lack of coherent policies and plans, and the lack of data, in Tanzania's wildlife sector was realised in 1990 when the Planning and Assessment for Wildlife Management (PAWM) project was initiated. PAWM was given broad terms of reference. These included a brief to tackle the current key planning issues and to draw up national plans for the wildlife sector; and to organise a more efficient, workable system of information storage and retrieval. The goal of the overall programme of PAWM was to conserve the wildlife of Tanzania by promoting the sustainable economic development of the wildlife sector. A workshop on community-based conservation in Tanzania was designed as part of PAWM's programme of work, and was held in Dar es Salaam during February 1994. During its preparation and follow-up, the workshop developed a number of important objectives, among which were the following:

- to initiate the process of developing a coherent community-based conservation policy for Tanzania, that encompasses the interests and policies of different wildlife authorities and that takes into account local conditions of human settlement and land tenure;
- to bring together expertise and stakeholders, both from within and outside Tanzania, to discuss issues of importance to the future practice of community-based conservation in Tanzania; and,
- to prepare recommendations arising from these discussions into a coherent community-based conservation policy to assist the wildlife sector to achieve more effective conservation of Tanzania's wildlife resources.

This volume provides a record of PAWM's efforts to work through these objectives. Readers interested in the subject of community-based conservation in East and southern Africa can find in the following pages the formal presentations that were made at the workshop, including papers from inside and outside Tanzania. This volume also provides a record of the recommendations that were made at the workshop by various working groups. The task of preparing a redrafted *Policy for Wildlife Conservation and Utilisation* was completed by PAWM following the workshop. It is very pleasing to note that this policy received the initial approval of the then Minister of Tourism, Natural Resources and Environment in April 1995, but it now awaits formal approval of the new Government. This policy provides guidelines that will enable community-based conservation to proceed on a more coherent footing, while also allowing the necessary flexibility.

The formal presentations in this workshop were divided into five main themes, as follows: Part 1: Community-based conservation policy in Tanzania; Part 2: Background to community-based conservation in Tanzania; Part 3: Overview of community-based conservation initiatives in Tanzania; Part 4: Case studies in community-based conservation around Africa; Part 5: Overview of themes in community-based conservation. As the presentations intended for the workshop were being planned, it was recognised that no one person would be familiar with a particular problem encountered by community-based conservation projects in different countries. Hence, no person could present a paper on, for example, *Land tenure in East and southern Africa and its relation to community-based conservation*. Such a paper would ideally have served as a basis for Tanzania to compare its own land tenure system and the problems this creates for community-based conservation. Instead each obvious resource person involved in community-based conservation knows a great deal about their own country or project, but is not in a position to write an overview of a problem area. Accordingly, we took the unusual step of requesting all resource persons, both

Tanzanian and overseas, to present their papers following a set of thematic headings. This approach aimed to allow the easier extraction of comparative material, so that the appropriate lessons are more easily learned. This approach of treating each project as an individual case study is also beneficial because each project area has to operate under a mixture of specific mechanisms and of local conditions. The headings used were arrived by consultation with five exponents of community-based conservation projects in Tanzania and amalgamating their suggestions into a coherent whole. The outline headings are shown in full in Chapter 25, together with relevant questions that a team of facilitators wished the working groups to consider under each heading.

The proceedings of the workshop were greatly enriched by the presence of colleagues from Zimbabwe, Zambia, Namibia, Kenya and Uganda, who all presented papers of great interest that enlightened participants about practices elsewhere. The collection of 25 chapters presented in this volume is perhaps the most complete to have been assembled on the different initiatives being followed in one country, with comparative material from close neighbours. Indeed, some salient points emerge. For example, the scale and type of benefits accruing to rural communities from wildlife, and the basis upon which these are apportioned, differs greatly between countries in the region. Furthermore, the extent to which community-based conservation is a bottom-up or a top-down approach in different countries varies considerably. Perhaps most striking of all is the length of time between initiation of a project in community-based conservation, and evidence of effective implementation and real results! The workshop was greatly enlivened and enhanced by the presence of Members of Parliament, who have shown increasing interest in seeking benefits for their constituents from wildlife conservation. We are pleased that the invited Members of Parliament graciously accepted our invitation to chair the working groups.

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J.A. Kayera
Project Manager, PAWM

ACKNOWLEDGEMENTS

The holding of a workshop as complex as this, and the task of compiling the information required can only be achieved with team-work of a high order. PAWM would very much like to thank the Minister of Tourism, Natural Resources and Environment for his gracious opening of the workshop, and the Director of Wildlife, the Director General of TANAPA and the Assistant Conservator of NCAA for their support during its preparation and for chairing the workshop so ably. All the PAWM staff worked hard with staff throughout the wildlife sector to compile the information describing the extent and potential value of Tanzania's wildlife industry, and the extent to which villages had acquired title to their land. The resource people invited to present papers at the workshop have given us fascinating accounts of current practices, both in Tanzania and in neighbouring countries in Africa, and thoughts on possible future directions. The facilitators worked long hours during the workshop to keep schedules and working groups on track. The staff of the Karibu Hotel in Dar es Salaam made us comfortable and welcome, while the staff of PAWM helped greatly with logistics and photocopying.

Our donors and project managers deserve great thanks. PAWM is funded by USAID, and jointly managed by the African Wildlife Foundation and the Tanzania Office of World Wide Fund for Nature (WWF). The programme of work undertaken by PAWM has been impressive in its breadth and scale. Our donors and project managers are thanked for their foresight and vision in initiating and funding the programme of work undertaken by PAWM. These proceedings have already been printed and distributed locally in Tanzania, but this volume makes them available to an international audience. Our donors are thanked for agreeing to fund the international publication through the Species Survival Commission of IUCN – The World Conservation Union. The Institute of Zoology of the Zoological Society of London, and the Durrell Institute of Conservation and Ecology in the University of Kent provided a base for the senior editor to complete their production. Dr Leslie Smart very conscientiously sub-edited the proceedings, and staff of the Publications Services Unit of IUCN took great care in their production.

OPENING: TANZANIA'S COMMUNITY-BASED CONSERVATION WORKSHOP

Honorable Juma Hamad Omar, Minister for Tourism, Natural Resources and Environment

Mr Chairman
Distinguished Delegates

First and foremost, I would like to take this opportunity to express my sincere gratitude to the organisers for having invited me to officiate at this important Community-based Conservation Workshop. The topic of this workshop is one that is close to my heart. I would hasten to pronounce that we need to see Tanzania enhance her endeavours in reconciling the needs of its rural people and of its wildlife.

Tanzania is a country with a population of some 27 million people, most of whom live in rural areas. Our people vary in both origin and background. Throughout much of the north and northeast of Tanzania, many pastoralists live traditionally, herding cattle out daily from their *manyattas* to good pasture and water, and protecting them from predators. The Maasai's traditional food is milk, blood and meat from domestic animals, with a maize supplement, and it is taboo to eat hunted wildlife meat. In the south and southwest of Tanzania, many rural people traditionally eat game meat. In addition, cultivation is practiced in these areas to grow staples like maize, cassava or rice.

The different life styles of our rural people are most probably determined by the prevailing ecological conditions. The life styles of people in the south and west have been determined partly by tsetse flies which prevent the herding of cattle, and by poor soils resulting in extensive miombo woodland cover. The major determinants of the pastoralist life style in the north and east have been the relative absence of tsetse flies and the richer volcanic soils, that result in more grassland and bush cover where humans and cattle can survive better. However, more sporadic rainfall results in man and his cattle having to move long distances to find water and green grass. Equally, the division in life style across Tanzania is not precise. For example, the Hadzabe live as hunters around Lake Eyasi in the north of Tanzania. They hunt wildlife for their food, as did their forefathers, with bows and arrows.

Tanzania is renowned throughout the world for its varied wildlife heritage. Our fauna includes species from the dry north of Tanzania, like lesser kudu, gerenuk, oryx and spectacular concentrations of wildebeest, to woodland-dwelling game in the south, with species like greater kudu, roan and sable antelopes. Amongst all these are the species of more catholic habits, like the elephant and zebra. Throughout Tanzania, there are abundant predators like lion and leopard. Our fauna also includes a few species that only occur in Tanzania, such as Abbot's duiker. Tanzania long ago recognised the importance of her wildlife heritage, both in terms of its conservation value and its potential benefit to the nation as a renewable natural resource. A notable milestone in the history of conservation in Tanzania, and indeed in Africa as a whole, was the Arusha Manifesto of 1961. The Father of the Nation Mwalimu Julius K. Nyerere stated:

The survival of our wildlife is a matter of grave concern to all of us in Africa. These wild creatures amid the wild places they inhabit are not only important as a source of wonder and inspiration but are an integral part of our natural resources and of our future livelihood and well being.

In accepting the trusteeship of our wildlife we solemnly declare that we will do everything in our power to make sure that our children's grand-children will be able to enjoy this rich and precious inheritance.

The conservation of wildlife and wild places calls for specialist knowledge, trained manpower, and money, and we look to other nations to co-operate with us in this important task – the success or failure of which not only affects the continent of Africa but the rest of the world as well.

Since then Tanzania has made considerable strides forward in its wildlife conservation efforts. We have gazetted large tracts of our country as protected areas. Around 5% of Tanzania's surface

area comprises National Parks and the Ngorongoro Conservation Area, 10% comprises Game Reserves and 9% are Game Controlled Areas. Therefore, in total Tanzania has 15% of its surface area devoted to wildlife in areas where no permanent human settlement is allowed, that is to say National Parks and Game Reserves. A further 9% of its surface area is devoted to protected areas where wildlife co-habits with humans. Our efforts at protecting our wildlife heritage have been recognised by the international community through designating some of our protected areas as World Heritage Sites and Biosphere Reserves.

But as former President Nyerere so rightly noted, wildlife should be an integral part of the Tanzanian people's future livelihood and well being. However, I am not sure about the extent to which the rural people of Tanzania believe that many of the measures instituted to conserve wildlife are actually to their benefit. Indeed, if the history of wildlife conservation in Tanzania is examined from the perspective of rural people, efforts have centred upon removing them from large tracts of land to establish National Parks and Game Reserves. It has resulted in removing from their control, resources that local people once utilised and regulated through traditional practices and, instead, instituting central control on those resources through enacting wildlife laws. Thus activities that were once carried out traditionally like hunting for the pot by using bows and arrows, are now illegal.

Our wildlife authorities have tried actively to correct the imbalance between local people and protected areas. Indeed, one of the earliest lessons anywhere in Africa on the possible way forward was taken in the Ngorongoro Conservation Area. In 1959, it was realised that the displacement of Maasai pastoralists from their homelands to create National Parks like Serengeti and Tarangire could not continue. Because displaced Maasai had fewer places to go, it appeared more realistic to seek a compromise between the needs of the pastoralists and their cattle and of the wildlife. Thirty years on, there are many who believe that this novel experiment at Ngorongoro has not worked as well as it might have done. No doubt, some things could have been done better with the benefit of hindsight but, at the same time, Ngorongoro is the only place where rhinos can now be seen easily in Tanzania. This is due in no small measure to a partnership with Maasai pastoralists that has benefitted both Tanzania, her international visitors and the rhino.

This early example of community-based conservation led to other examples aimed at involving local communities. Projects began around the Serengeti National Park and Selous Game Reserve in the mid to late 1980s through the Serengeti Regional Conservation Strategy and the Selous Conservation Programme, respectively. These projects have sought title deeds for villages in buffer zones to allow responsibility for managing wildlife to pass to villagers and assisted in the development of land use plans. These villages have also been allocated legal quotas of meat so that hunting can be undertaken legally. Villagers in some areas have been trained as game scouts with the brief of ensuring their areas remain free of intruders wishing to use their wildlife. A project with similar aims has begun more recently around the Greater Ruaha ecosystem. A common development among these projects will be to establish Wildlife Management Areas (WMAs) in line with proposals made in a draft national wildlife policy that still awaits implementation. In another approach, TANAPA initiated an outreach programme in 1990 through its Community Conservation Service that has successfully built better relationships between several National Parks and their neighbouring communities.

I am pleased to say that the private sector has not lagged behind the wildlife authorities in endeavours to bring benefits from wildlife to local communities. One outfitter serving tourist hunters around Maswa Game Reserve began to collect additional fees that his clients paid voluntarily into the Cullman Reward Scheme for villagers to share as benefits. Village scouts also were trained and paid to collect poachers' snares. This scheme has now expanded and is run by two outfitters around several hunting areas in Tanzania.

All these efforts are to be commended and will, I am sure, lead to some redressing of the balance between local people and wildlife. However, we must also recognise that we have taken only what will be useful first steps in a long process. So far, all our community-based conservation projects operate by dancing to their own tune and in response to specific local conditions. At present the

control of wildlife resources has only passed to villagers to the extent that the Director of Wildlife issues a quota and that there are forces of village scouts in some areas. There is no common formula on how benefits should pass directly to villagers. Therefore there is great need for a coherent community-based conservation policy for Tanzania, the formulation of which awaits for your deliberations at this workshop.

After the formal presentations, I am told you will move to working groups to distill all your experience together into a coherent whole and formulate recommendations for the future conduct of community-based conservation in Tanzania. A wide range of expertise has been invited to attend the workshop in order to assist you in your deliberations. For example, among the participants are people with expertise in land tenure, pastoralism, traditional hunting and villagisation. Representatives of other departments of my Ministry are also present because natural resources like fish and forests should also possibly be managed through devolving control to local people. We have also invited a number of politicians to attend this technical workshop because of their considerable interest in the interactions between man and wildlife. Accordingly, a number of Members of Parliament from areas adjacent to or within our important wildlife areas will be involved in the planning process. This is a bid to see how best wildlife can be integrated with their constituencies in bringing about the development of their people. We are very fortunate also to have with us resource persons from outside Tanzania with considerable experience of community-based conservation. I would personally like to thank our visitors from Zimbabwe, Zambia, Namibia, Kenya and Uganda for sparing their valuable time to come share their experiences with us.

Finally, I would like to thank the sponsors of this workshop. We are indeed grateful to the Wildlife Division, USAID and the African Wildlife Foundation and World Wide Fund For Nature (WWF) for having respectively organised and funded this workshop.

Mr Chairman
Distinguished Delegates

With these few words, may I wish you every success in your deliberations, and I now formally declare the workshop open.

PART 1

COMMUNITY-BASED CONSERVATION POLICY IN TANZANIA

1. THE NEED FOR A COMMUNITY-BASED CONSERVATION POLICY IN TANZANIA: TANAPA's PERSPECTIVE

L. Melamari

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1. INTRODUCTION

Community Conservation (CC) is a participatory process between people and organisations who have rights and responsibilities affecting conservation. It requires communication, co-operation and co-ordination between these stakeholders, including the various wildlife authorities. It is essential that a national community-based conservation policy evolves, based on the experiences and objectives of these stakeholders, as it is they who will implement this policy.

In view of this, a few highlights are presented of the development of CC within Tanzania National Parks (TANAPA). Suggestions are then made on how this might be linked to a larger community-based conservation policy in Tanzania.

2. COMMUNITY CONSERVATION IN TANAPA

Following the workshop that initiated the Serengeti Regional Conservation Strategy in 1985, TANAPA, in partnership with the African Wildlife Foundation, began a pilot project in three villages in Loliondo. The project showed how CC could work within the institutional framework of National Parks. Since then CC has developed steadily in TANAPA. In 1990, TANAPA's first full-time Community Conservation Warden (CCW) was appointed in Tarangire. Appointments in Arusha and Lake Manyara National Parks followed. In 1991, the Community Conservation Service (CCS) was established to co-ordinate and monitor the activities of the CCWs, and to provide advice and support. The unit held its first workshop the same year, where it developed a new job description for CCWs, and began developing a community survey questionnaire to be used around all parks.

The Community Conservation Co-ordinating Committee (C4) was also established in 1991. This is an internal steering committee, which meets quarterly to share the experiences of CCWs and to formulate TANAPA policy and procedure on CC activities. The C4 ensures that TANAPA defines its own CC agenda, and that various donor-assisted projects and technical advisors all have an opportunity to participate in the development of a general approach. This is then adapted to suit the needs of an individual park.

In late 1992, CCS was assessed by an external team of evaluators. This gave a fresh viewpoint on the strengths and weaknesses of the CCS, and directed future efforts. CC was written into TANAPA's new draft National Policy for National Parks in 1993, providing a new policy basis for CC activities. The latest development took place in July 1993 when the CCS held a workshop to plan its strategies for the next few years.

The activities and methodology of the TANAPA CCS are described by Bergin (in this volume). However, the following points will illustrate the level of TANAPA's involvement in CC:

- some 14 districts have been targeted with outreach activities;
- some 9 out of 12 National Parks have CC projects, while 5 National Parks have formally designated CCWs;
- over Tsh 25 million (the equivalent of US\$ 72,000) has been allocated to CC activities over the last two years, since it became part of our annual budget;
- over Tsh 25 million (the equivalent of US\$ 50,000) has been allocated to Support for Community Initiated Projects (SCIP) in 1994. Our Board of Trustees has recently agreed in principle to a proposal which would raise the SCIP fund as a percentage of TANAPA revenue over the next four years; and,
- some 28 communities have been involved with completed or ongoing SCIP projects of various sizes.

The development of TANAPA's CCS has undoubtedly benefitted from its close working relationship with the TANAPA Planning Unit. Community participation in planning leads to better planning and

more benefits for communities, which encourages more interest and participation in conservation. TANAPA now includes CC staff in all planning and policy decisions. Where appropriate, the CCS itself sponsors involvement of local people and their leaders in these exercises. TANAPA is particularly concerned that its CC strategies are sustainable

While TANAPA is truly committed to expanding CC projects, they must compete with other important projects for TANAPA's limited human and financial resources. TANAPA CCS is grateful to have received the assistance of several donors. However, the two major building blocks of our approach, the activities of CCWs and the SCIP fund, are supported directly by TANAPA's recurrent budget. Therefore, on the one hand TANAPA is aware that its achievements might seem modest. Equally, on the other hand CC will benefit more in the long run from a sustainable programme that truly originates within the resources of the National Parks.

3. THE NEED FOR A NATIONAL POLICY

Although TANAPA's CCS has developed successfully around National Parks, it is no substitute for a wider policy framework that would encourage more communities to conserve their land and wildlife. Unfortunately, such a policy framework has not been encouraged by recent changes in land law, or by the Investment Promotion Code. These have created uncertainty at the local level, particularly over the apparent contradiction in allocating land resources on a local level while leaving control of the natural resources on those lands centralised. This position must be clarified.

TANAPA'S experience is that, despite the allocation of title deeds, local people have no real control over land. Responsible individuals and companies from the private sector are searching for an appropriate mechanism to allow them to work with these communities while protecting the rights of both parties. These mechanisms do not currently exist.

In looking for solutions, it must be remembered that our protected areas and natural resources are extremely diverse, as are the communities that live among them. TANAPA's outreach programme involves pastoralists, farmers, fishermen and town dwellers. No simple model of tourist hunting and community management will be relevant to all groups. Instead, we should focus on policy mechanisms that will allow communities to plan their natural resource management responsibly.

4. CONCLUSION

TANAPA is confident that the qualified participants of this workshop will contribute to the development of a national policy for community-based conservation in Tanzania. TANAPA also hopes that its own considerable experience in CC will be of assistance. Such a policy will benefit Tanzania's people and assist in the sustainable development of our natural resources for the future.

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2. THE NEED FOR A COMMUNITY-BASED CONSERVATION POLICY IN TANZANIA, WITH SPECIAL REFERENCE TO NGORONGORO CONSERVATION AREA

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1. INTRODUCTION

Traditionally, managers of protected areas (PAs) have concentrated on law enforcement to protect natural resources, but this has not been successful. Communities living in or around PAs are generally poor. Competition from PAs for land, water and pastures has led to conflict and negative attitudes towards conservation. Government has realised that the long-term survival of PAs depends upon the approval and good will of local communities.

Community-based conservation seeks to integrate utilisation of natural resources with rural development by channelling some profits from resource utilisation into the socio-economic development of local communities. This requires the local communities to participate as partners in the management of the natural resources both inside and outside PAs.

The Government of Tanzania (then Tanganyika) realised the importance of, and need for, community-based conservation in 1959, when it established the Ngorongoro Conservation Area (NCA) in Northern Tanzania as a multiple land-use area. NCA is of great conservation importance for a number of reasons:

- the forests of the Highlands are important watersheds for surrounding communities;
- the short grass plains are an important wet season grazing area for the migratory herds of wildebeest and zebra within the Serengeti ecosystem; and,
- Olduvai Gorge and other pre-historic sites are world-famous.

NCA is also the home of some 26,000 Maasai pastoralists and their herds of cattle and small stock. However, the policies that should have protected the environment and wildlife while allowing the Maasai to use the land were not sufficiently clear. Therefore, it is very important to develop a coherent community-based conservation policy for Tanzania, to provide future direction for policies within NCA.

2. BACKGROUND

The NCA covers some 8,000 sq km, bordered on the west by the Serengeti National Park (NP) and on the east by Maswa Game Reserve (GR) and the Rift Valley escarpment. To the south lies the agricultural community of Karatu and to the north is the Loliondo Game Controlled Area (GCA).

When the boundaries of the Serengeti NP were established in 1951, they included most of the southern half of the present Serengeti as well as the Eastern Serengeti plains and the Ngorongoro Highlands. Although the area was dedicated to the conservation of natural resources, pastoralism and cultivation were allowed to continue. However, by 1954 it was felt that cultivation was incompatible with conservation of natural resources, particularly wildlife. Consequently, agriculture was prohibited in the whole of the Serengeti NP. Strong opposition from both cultivators and pastoralists led to a crisis that was resolved by dividing the original Serengeti NP. The Western Section and a new Northern extension became an exclusive wildlife area that established the present day Serengeti NP. The eastern portion including the Eastern fringe of the Serengeti plains and the Ngorongoro Highlands became the NCA, in which Maasai pastoralists were allowed to reside and practice animal husbandry and cultivation. In 1959, the Ngorongoro Conservation Area Ordinance was passed. This established Ngorongoro as a multiple land-use area with two principal functions:

- conservation and development of the natural and archaeological resources; and,
- safeguarding and promotion of the interests of the Maasai pastoralists.

The Ngorongoro Conservation Area Ordinance was revised in 1975, and among the new provisions was the banning of cultivation.

3. BALANCING CONSERVATION AND DEVELOPMENT PROBLEMS

Areas set aside for conservation of wildlife or forestry have traditionally excluded human habitation, as well as most forms of human utilisation. No other area in East Africa has been established with dual mandate of furthering the interests of both conservation and pastoralism. Ngorongoro is a striking experiment in multiple land-use and community-based conservation. Nevertheless, since its establishment in 1959, the land within the NCA has come under increasing pressure from a variety of sources.

3.1. WILDLIFE POPULATIONS

Wildlife suffered high mortality in the rinderpest epidemic of the 1890s. The control of rinderpest in this century, coupled with an increase in rainfall in the Ngorongoro-Serengeti region, has led to a dramatic increase in wildlife populations. The increase of wildebeest has been particularly spectacular, from some 250,000 to 1.7 million. Most other species have remained stable or shown a concurrent increase.

3.2. PASTORALISM

The Maasai population within the NCA increased from 8,700 in 1966 to 18,000 in 1988. This was partly due to natural increase, estimated at 2.3% per annum, and partly due to immigration. During the drought of the 1970s, Ngorongoro enjoyed a relatively high rainfall, and became a focal point of immigration for pastoralists from the surrounding lowlands. The NCA continues to be a refuge area during drought. Today the resident population is estimated at 26,000. In the long-term, it seems certain that Ngorongoro populations will increase, even without considering the effects of specific drought periods. Immigration will continue as pastoral lands outside NCA become degraded or lost to cultivators and large-scale agricultural schemes.

3.3. AGRICULTURE

The area to the south of Ngorongoro is well-watered and quite rich agriculturally. Immigration into this area has led to tremendous expansion of the agricultural communities outside the NCA. This has led to a rapid increase in the demand for land. In addition to the destruction of pastoral land and displacement of pastoralists (see 3.2), this demand has led to encroachment on to the eastern portion of Ngorongoro. The demand for wood for fuel and building and for other forest products is increasing. Local supplies are not protected or regulated and as a result, they are now virtually exhausted.

3.4. CULTIVATION

The Maasai in Ngorongoro are becoming increasingly impoverished due to a loss of cattle. The number of cattle within the NCA fell from 161,000 in 1960 to 107,800 in 1988. In contrast, the number of small stock (sheep and goats combined) rose from 100,700 in 1960 to 240,000 in 1977. According to a livestock census conducted in 1987, there were approximately 137,000 cattle and 137,000 small stock in NCA. Losses of cattle are equivalent to 6.5 per capita from 1960 to the 1990s. The Maasai blame the increasing wildebeest population that has reduced the grazing available to Maasai cattle and increased the levels of disease. Consequently, the Maasai are pressing for a return of their cultivation rights so that they can supplement their diet with a secure source of grain. The Maasai consider that the ban on cultivation was primarily enacted to ensure the conservation of wildlife and other natural resources. In turn, this has neglected the mandate to ensure Maasai interests, and fueled antagonism between the Maasai pastoralists and NCAA.

4. LONG-TERM DEVELOPMENT

The long-term development of NCA presents the greatest challenge to NCAA. Management policy must be adapted now to address the issues that have surfaced during the past 30 years. Furthermore, in the future it seems inevitable that traditional pastoralism of the Maasai will be modified, especially if they seek socio-economic services and become increasingly oriented toward a cash economy. Consequently, future management policy will have to be adapted to allow for these changes and ensure that multiple land-use in NCA is successful.

In 1987, the Government of Tanzania commissioned IUCN – The World Conservation Union, to evaluate the multiple land-use practice in NCA. The review covered the 30 years of NCA's existence, and recommended policy guidelines that addressed the need for conservation and community development. The report was reviewed by an *Ad hoc* Ministerial Commission on

Ngorongoro, appointed by the Minister responsible for natural resources. The Commission produced valuable recommendations in 1990. Some major recommendations that featured in the report are vital for inclusion in policy guidelines for community-based conservation, as summarised below:

4.1. SOCIO-ECONOMIC DEVELOPMENT ACTIVITIES

Socio-economic development is the responsibility of NCAA and the Ngorongoro District Council (NDC). Their respective laws require that each promotes socio-economic activities in NCA. Historically the NDC has concentrated on health and education services, while the NCAA has concentrated on development of livestock, water supply, and roads. The two bodies have not reached any formal agreement on the division of responsibilities within NCAA. Neither institution was entirely responsible for services such as food security or livestock marketing and neither institution had any formal system for consultation and communication. This has led to confusion, tension and inefficiency and has impeded socio-economic development within NCA. Two steps must be taken to resolve this situation. First, the development responsibilities of both NCAA and NDC must be clearly stated in policy. Second, a forum should be created to encourage communication and collaboration between the different development agencies in NCA.

4.2. CHANNELING BENEFITS TO THE PEOPLE

Promoting the concept of community-based conservation requires sound policies for channeling benefits from NCA to the local communities. Actual transfer of funds from the NCAA to local communities requires a number of mechanisms, which could include:

- providing the NDC with a fixed percentage of the Authority's annual revenue; or,
- establishing a Village Development Fund that would consider proposals put forward by the local community; or,
- provision of funds to Village Development Committees.

Other benefits would include employment opportunities for residents by NCA, tour operators and the hotel industry.

4.3. LAND TENURE

Villages taking part in community-based conservation projects need long-term security provided by land ownership. Village boundaries should be demarcated and tenure granted under the terms of the Villages Act of 1975 and the Local Government Act of 1982. Within NCA, the lack of land tenure for villages has been a major source of tension and conflict.

4.4. COMMUNITY-BASED CONSERVATION AWARENESS

Interactions between local communities living in and around NCA, and the NCAA, are minimal. As a result, local communities are antagonistic towards the conservation of natural resources. People cannot be expected to support the conservation areas unless they appreciate why these areas were created and the benefits they provide. Policies should establish extension and education programmes to improve awareness and dialogue. The NCAA has already created an Extension Section within the Community Development Department to improve this awareness and dialogue amongst the Maasai pastoralists.

4.5. COMMUNITY INVOLVEMENT

Historically, NCAA alone planned all community development, and local communities were excluded. Community-based conservation must involve residents in planning and implementation. As a first step, the NCAA has recently formed a joint planning team with representatives from both NCAA and the local residents.

4.6. COLLABORATION WITH OTHER AGENCIES

Multiple land-use areas such as NCA can rarely be managed as self contained units. They must integrate geographically, as well as administratively and politically. Hence, policy should give guidelines for the formulation of management and development plans that involve neighbouring communities.

4.7. ECOLOGICAL MONITORING AND RESEARCH

NCA has lacked long-term monitoring data. This has made it difficult to determine the extent of ecological change, the role of people and livestock in these changes and the most appropriate management actions. A monitoring and research unit will provide data to facilitate future planning.

Policy guidelines that seek to promote ecological monitoring and research, should also take indigenous technical knowledge into account. Local communities often possess a detailed knowledge of their natural environment that can be tapped to improve the management of PAs. As an example in NCA, Maasai communities had traditionally used fire as a simple but effective tool to improve pasture conditions, control bush encroachment and reduce tick populations. Since fires have been prohibited in the NCA the range condition has deteriorated due to bush encroachment, poor pastures and increase in tick populations.

5. CONCLUSION

Balancing conservation with development is not easy. However, it is becoming increasingly clear in many parts of the world that integrating conservation with the socio-economic requirements of the local people is the only viable and morally acceptable form of conservation. Although community conservation has not fully succeeded during the last 30 years in NCA, the lessons learned will assist greatly in the future management of community-based conservation in NCA. This must be set in the wider context of national policies towards community-based conservation.

3. THE NEED FOR A COMMUNITY-BASED CONSERVATION POLICY IN TANZANIA: THE DEPARTMENT OF WILDLIFE'S PERSPECTIVE

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1. INTRODUCTION

Tanzania needs to develop a coherent community-based conservation policy. This should take into account local conditions of human settlement and land tenure, and the interests and policies of the different wildlife authorities. The Conservator of Ngorongoro Conservation Area Authority (NCAA) and the Director General of Tanzania National Parks (TANAPA) have already expressed views on community-based conservation (Chausi and Melamari in this volume). This overview presents the position of the Department of Wildlife. First, the present responsibilities of the Department and the system of administration for the land under its jurisdiction are described. Second, the issues that must be addressed to formulate a community-based conservation policy are discussed.

2. THE PRESENT SITUATION

The Department of Wildlife is a Division of the Ministry of Tourism, Natural Resources and Environment. It has overall responsibility for the wildlife sector at Government level. One of its two main functions is to develop national policies for the wildlife sector. The wildlife sector has five parastatals, each responsible for different components of the sector. Community-based conservation is most relevant to two of these, NCAA and TANAPA, as they manage specific areas of land (Chausi and Melamari, 1996). The second main function of the Department is to manage the large tracts of land outside the network of National Parks that are devoted to wildlife conservation and also, the Ngorongoro Conservation Area.

The two categories of conservation area allowed under the Wildlife Conservation Act of 1974, are Game Reserves (GRs) and Game Controlled Areas (GCAs). GRs are devoted solely to wildlife conservation and permanent human settlements, cultivation, or grazing of livestock are prohibited. However, hunting is allowed under permit. In contrast, in GCAs, human settlement, cultivation and the grazing of livestock are unrestricted, but hunting of wildlife is permitted only under licence. An exception is made when wildlife threatens human life and property. Such conflict will escalate as settlement increases, unless appropriate corrective measures are taken.

Around 10% and 9% of Tanzania's surface area are gazetted as GRs and GCAs respectively. Most GRs are now controlled by the Department of Wildlife, and receive their budget through Treasury allocations to the Department. Such GRs are known as National Projects and have a Project Manager who reports to the Director of Wildlife. A few GRs and all the GCAs are under regional control and receive their budget through their respective local government allocations. Even though Regional Game Officers are not answerable directly to the Director of Wildlife, but to their Regional Development Director, these areas are mostly staffed by Wildlife Officers out-posted from the Department of Wildlife. Besides the formal categories of protected area, wildlife populations survive in considerable numbers in certain open areas. These are also under the control of the Regional Game Officer. Hunting is by licence unless wildlife is damaging human life or property.

Much of the country's surface area is devoted to protected areas and wildlife still occurs in many settled areas. Hence, Tanzania has sought to conserve its wildlife while ensuring it makes a significant contribution to the national economy. Tanzania has a long tradition of involvement with tourist hunting, which though banned from 1973 to 1978, has since been developed by the Department of Wildlife. All GRs except Mkomazi GR, many GCAs and a few open areas are devoted mainly to tourist hunting. This is a very economically rewarding form of land-use and wildlife utilisation that can contribute significantly to Tanzania's future conservation efforts. When managed sustainably, tourist hunting has little impact on wildlife populations and provides high returns from a low-volume but highly priced market. Tourist hunting has two further advantages over other forms of wildlife utilisation. First, it is a reasonably stable and even growing market, whereas the tourist game viewing market is often fickle and sensitive to recessions and civil disturbance. Second, tourist hunting can contribute significantly to the economies of remote rural

communities in areas unsuitable for game viewing tourists. Other uses of wildlife within certain GRs include some limited tourist game viewing (in Selous, Rungwa and soon Mkomazi) and fishing and honey collection (in Ugalla and parts of Moyowosi).

The Department of Wildlife recognises the right of indigenous Tanzanians to hunt wildlife. Generally, residents are issued hunting licences for those open areas not allocated to tourist hunting. Tanzanians pay much lower licence fees than tourists but villagers still can not afford them. Furthermore, the current legislation bans the use of traditional weapons so villagers cannot hunt legally. So, although resident hunting is a thriving industry, it mainly serves the richer Tanzanians and the resident expatriates. Tanzania must aim to balance the interests of these different groups in a way that is acceptable to all. This would probably be best achieved through community-based conservation.

Initially, the Department of Wildlife has hosted the Selous Conservation Project within our Department Headquarters and provided staff and considerable input to the Serengeti Regional Conservation Strategy (Krishke *et al.*, 1996; Maige, 1996). These two projects are working together with villagers living around these conservation areas. Considerable progress has been made in the following areas:

- acquiring title deeds;
- developing plans for land use;
- training village scouts; and,
- providing legal quotas of game animals for the villagers to hunt for meat.

More recently, we have encouraged two projects to begin work around the Greater Ruaha Ecosystem and the Mkomazi GR and a third project will be implemented soon in the Kilombero Valley. However, many more projects are needed in new geographical areas and policy changes are necessary if these projects are to work effectively. Some important points of policy will now be discussed.

3. FUTURE DIRECTIONS AND NEEDS

3.1. NEW CATEGORIES OF COMMUNITY-BASED CONSERVATION AREA

The Department of Wildlife recognises that the present categories of protected area within Tanzania may not fully address the future needs of community-based conservation. Legislation makes no provision for control over settlement in GCAs. Conflicts between wildlife and the increasing human population will escalate and ultimately lead to the destruction of both the wildlife and natural resources. The Department recognises three major issues concerning GCAs and their use. First, theoretically the Department controls the issuing of licences for all captures and kills of wildlife within GCAs. However, in practice much wildlife is taken illegally. Estimates made by the International Trade Centre, suggesting that as much as 60% of wildlife utilisation in Tanzania is illegal. Second, in some cases the gazettement of land needs to be altered. Many GCAs are now devoid of wildlife and serve no or little purpose. Equally, a number of open areas have such good populations of wildlife, that they are issued as tourist hunting blocks. Third, National Parks and GRs where no settlement is allowed, are not consistently surrounded by GCAs. For example, the Serengeti Regional Conservation Strategy can undertake much of its community-based conservation work in the GCAs that surround the Serengeti National Park. However, the Selous Conservation Project undertakes its community-based conservation work mostly in open areas, given that there are few GCAs around the Selous GR.

Accordingly, in an early draft National Wildlife Policy the establishment of Wildlife Management Areas (WMAs) is proposed. These would replace GCAs or open areas, but only if they support significant wildlife populations and/or villagers wish to manage their land to support wildlife. The aim should be first, to give title deeds of land to villages. Then villagers should decide with appropriate professional advice, which form of land use, compatible with the conservation of natural resources, they wish to pursue, and how they will derive benefits from such management. If villagers do benefit, then a sense of custodianship over wildlife should return, and schemes to employ village scouts should reduce illegal exploitation because it is no longer serves the villagers' interests. This workshop will need to decide whether the WMA concept should be pursued and

whether it can promote community-based conservation outside National Parks as well as outside GRs.

3.2. LEGAL CHANGES

The present legislation, the Wildlife Conservation Act of 1974, does not favour the implementation of community-based conservation schemes (Lyimo and Ndolezi, 1996). The issue of the categories of protected area has already been discussed. Ownership of wildlife another major issue that must change to encourage community-based conservation. At present the state owns all wildlife and villagers in community-based conservation project areas are issued with a quota by the Department to give them the opportunity to hunt legally. Although this is a considerable step forward, the villagers do not own the wildlife and until they do, they will not feel responsible for it. Furthermore, this system still promotes management from the top down rather than from the bottom up. Accordingly, this workshop must consider what legal changes need to be made over ownership or use of wildlife to promote wildlife management outside the unsettled protected areas. A possible step is to grant villagers use rights of wildlife upon land for which they own the title. A more radical approach is to remove all wildlife that occurs outside the unsettled protected areas from state ownership. However, individuals should never receive use rights as that defeats the very purpose of community-based conservation.

3.3. SHARING OF BENEFITS

Although our projects have made great improvements in providing benefits such as meat and land ownership to villagers, village economies are not benefitting from the most economically rewarding forms of wildlife utilisation, namely tourist hunting. The exception is the case of the Cullman Reward and Benefits Scheme, which is operated voluntarily by two outfitters and their clients. Tourist hunting conducted within GCAs and open areas has great potential for providing considerable benefits to local people and involving them more fully in our conservation activities. Indeed, the Tourist Hunting Workshop held in July 1993 recommended that local people should be able to offer tourist hunting rights to outfitters and to receive direct benefits from tourist hunting (Leader-Williams *et al.*, 1996). As policy, these recommendations would permit a major flow of funds to local communities. Other forms of wildlife utilisation such as hunting by residents, live capture and tourist game viewing also need to be harnessed to benefit villagers. It is vital that this workshop provides clear recommendations on how to manage benefit sharing so that rural communities living among wildlife are provided with much needed income.

A further question is from which areas should villagers receive benefits from wildlife? Tanzania has wildlife living inside unsettled protected areas, and in areas occupied by people. The wildlife authorities manage the unsettled protected areas and, in one case, the settled Ngorongoro Conservation Area. The Government receives considerable sums of tax from the wildlife parastatals and from the private sector enterprises, the outfitters and lodge owners, that use the services provided by the wildlife authorities. The Government also receives fees accrued through the Wildlife Department, and provides a budget that is smaller than the revenue generated, to manage ourselves and our GRs. With a shortfall in income and resources, the wildlife authorities can not effectively manage the areas under their control. Therefore, to provide benefits to local people from wildlife, should the wildlife authorities aim to provide benefits from the earnings of the already overstretched, unsettled protected areas? Indeed, this idea is espoused in the policy of distributing a percentage of fees to districts. The workshop should consider whether it would promote better management of the wildlife if villagers received benefits only from the wildlife of their WMA. This would leave the wildlife authorities better able to manage themselves as core areas that provide the resources for villagers to utilise.

3.4. INSTITUTIONAL STRUCTURE

The Department of Wildlife has relied on external funding for projects that promote community-based conservation around or within some of the important conservation areas under its control. At present, the Research Training and Extension section does not have the capacity to implement a comprehensive programme of community-based conservation in collaboration with villagers. Equally, the Department does have a large staff of Regional (RGOs) and District Game Officers (DGOs) who could promote community-based conservation in the future WMAs. At present these

staff manage the wildlife resources in their areas, and are responsible directly to their Regional Development Director and indirectly to the Director of Wildlife.

The roles of the DGOs and RGOs could be reoriented to include supporting villagers in running wildlife management activities. Indeed, another recommendation of the Tourist Hunting Workshop was that local people should use their unequalled knowledge to help set quotas, with the help of professionals (Leader-Williams *et al.*, 1996). This workshop will need to consider how best DGOs and RGOs can integrate with village and other wildlife committees to provide bottom-up planning and management. It will also be important to consider how best to integrate DGOs and RGOs with the staff of other wildlife authorities involved in community-based conservation, for example the Community Conservation Wardens of TANAPA (Melamari, 1996).

4. CONCLUSION

The Department of Wildlife recognises the importance of developing a policy that allows community-based conservation to progress. This paper has discussed particular problems with present policy and some possible solutions. To aid the development of such a policy, we are hosting this consultative workshop. We hope to tap the full range of experience of those involved in community-based conservation both within and outside Tanzania. My Department looks forward to your co-operation during the remainder of this workshop.

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PART 2

BACKGROUND TO COMMUNITY-BASED CONSERVATION IN TANZANIA

4. LAND TENURE IN TANZANIA

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1. INTRODUCTION

This paper reviews the general status of land law in Tanzania, then focuses on pastoral land rights. The latter is particularly relevant to the issue of community-based conservation, as land is traditionally held communally in pastoralist societies. For historic reasons, little attention has been given to pastoral land rights, and the law has not been well regulated in this area. Statutory materials and existing case law have been used to construct a legal position that is applicable to pastoral land rights in Tanzania. An attempt will also be made to deal with the changing aspects of customary rights. To some extent, therefore, this paper is a speculative extrapolation of what the law could be, but highlights the tenuous nature of pastoral land rights. This paper is modified from a longer treatise on this subject (Tenga, 1992).

2. THE STATUS OF LAND LAW

2.1. THE LAND ORDINANCE, CAP 113

The Land Ordinance, CAP 113, and subsequent amendments, has been the enabling legislation on land matters since 1923. For discussion purposes it is necessary to outline certain structures of this statute.

The Land Ordinance declares all land in Tanzania to be *Public Land* (Section 3). The final control of all such land is vested in the President who administers the land for the use and common benefit, direct or indirect of the natives of Tanzania (Section 4). The term *native* is defined under Section 2 to mean:

- *Any person who is a citizen of the United Republic and who is not of a European or Asiatic origin or descent.*

The President is enjoined under Section 5 to give due regard to native laws and customs existing in a given district whenever exercising his powers under the Ordinance. This is an important direction to the courts that has been largely ignored over the years, especially with regard to pastoral lands.

Under Section 6 the President may grant Rights of Occupancy. This kind of tenure is defined under Section 2 as follows:

- *Right of occupancy means a title to the use and occupation of land and includes the title of a native or a native community lawfully using or occupying land in accordance with native law and custom.*

The Land Ordinance and other supplementary statutes such as the Land (Law of Property and Conveyancing) Ordinance, CAP 114; the Land Registration Ordinance, CAP 334; the Town and Country Planning Ordinance, CAP 378; the Land Acquisition Act of 1967; and the Limitation Act of 1971, all give primary emphasis to the Granted Right of Occupancy. Very little is provided for the Deemed Right of Occupancy, which is the system of tenure for most Tanzanians. It is important to consider additional details that relate to these two forms of Rights of Occupancy.

2.2. GRANTED RIGHTS OF OCCUPANCY

The uniqueness of the Granted Right of Occupancy vis-à-vis the Lease has been discussed and determined in case law (Tenga, 1992). Under Section 6 of the Land Ordinance the President may grant land for periods up to 99 years. At present it has been proposed to empower the President to grant land for 999 years as long-term rights for Village Councils. However, the proviso to Section 6(1) provides more particularly that:

- *Provided that before any such grant is made of any public land in an area over which a native authority has been established, such native authority shall be consulted.*

The Government has interpreted this as being non-mandatory (Government Circular No 12 of 1953). The customary lands of the Meru Tribe were taken by the British colonial administration without consultation with the established native authority. Today, it could be argued that the Tanzanian Government is doing the same thing with regard to pastoral land by ignoring the mandatory provisions of the law.

Section 12 allows the President to authorise subordinate officers to grant Rights of Occupancy for terms of less than five years. This authority has been given to District Land Officers by Government Notice No 266 of 1959.

Once a Right of Occupancy has been granted, the President may impose terms of contract between himself and the grantee provided such terms are not inconsistent with the provisions of the ordinance (Section 7(5)). The President issues a Certificate of Title that includes all terms and conditions that go with the Grant, under the terms of Section 9.

The power of issuing Certificates of Titles for long-term Rights of Occupancy has been given under Section 9(2) to the Commissioner of Lands, sometimes referred to as the Director of Land Development Services (DLDS). Once the Certificate is executed by both parties the Right of Occupancy is effectively conferred on the Grantee.

The type of Right of Occupancy granted may be distinguished by its period or use. A Right of Occupancy can be short- or long-term. Under Section 27 of the Land Registration Ordinance, all Rights of Occupancy longer than 5 years must be compulsorily registered. Short-term Rights can only be registered where the Certificate contains an option whereby the occupier may require the President to grant him a further term or terms, which together with the original term exceed 5 years. However, a grantee may opt to register a short-term Right of Occupancy under the Registration of Documents Ordinance, CAP 117. Here it is the document that is registered, and not the Right of Landholding itself. Often the so-called Letters of Offer of Rights of Occupancy are registered under the Registration of Documents Ordinance. To summarise, the long-term Right of Occupancy is granted under the Land Ordinance with a Certificate of Title executed by the DLDS on behalf of the President. In contrast, the short-term Right of Occupancy is executed by District Land Officers on behalf of the President under Section 12 of the Land Ordinance.

In terms of land use there are several types of Granted Rights of Occupancy. These include Agricultural, Pastoral, Mixed Agricultural and Pastoral, and that granted for Building Purposes (Residential, Commercial, Industrial, Service, Recreational, and so on).

The first three types are distinguished under the Land Regulations of 1948. These regulations provide general use conditions for Agricultural, Pastoral and Mixed Agricultural and Pastoral Rights of Occupancy. They replaced antiquated regulations, namely, the Land Regulations of 1926, that were mainly for Agricultural Rights of Occupancy and the Land (Pastoral Purposes) Regulations of 1927. The major problem with these old regulations was that they required the occupier to spend a specific sum of money on scheduled developments within a certain period of time. The occupier could choose any type of the scheduled improvement and might over-invest in some triviality to meet the scheduled requirement. The Land Regulations of 1948 were enacted to avoid this problem, and tie down development to specific development conditions, and not solely to the value of developments. By a special act known as the Rights of Occupancy (Development Conditions) Act of 1963, the Land Regulations of 1948 were made to apply to all Rights of Occupancy, even for those granted before 1948.

Under Section 10 of the Land Ordinance, the President is empowered to revoke a Right of Occupancy either for *good cause* or in the public interest. Good cause is defined to include:

- non-payment of rent, taxes, or other dues imposed upon the land;
- breach of the provisions of Section 14 of the Land Ordinance, that are concerned with compensation for unexhausted improvements;
- breach of any term or condition contained or to be implied in the Certificate of Occupancy in any contract made in accordance with Section 7 of the Land Ordinance. Therefore, this includes the terms imposed by the Land Regulations of 1948;
- attempted alienation by a native in favour of a non-native contrary to Section 11 of Land (Law of Property and Convincing) Ordinance, and Section 8 of the Land Ordinance;

- breach of any regulations under the Land Ordinance relating to the transfer of, or other dealings with, Rights of Occupancy or interests therein. This largely refers to consent provisions in the event of dispositions. Generally no disposition can be made without the consent of the President (see Regulation 3(1) Land Regulations of 1948; and Section 41 of the Land Registration Ordinance).

The phrase *good cause* in relation to the revocation of a Right of Occupancy has received judicial interpretation (Tenga, 1992). Good cause must be determined objectively, and not just simply by government officials (Section 10(1) of the Land Ordinance). In addition the President may revoke the Right of Occupancy under Section 10(2) of the Land Ordinance where it is, in his opinion, in the public interest so to do. Unlike Section 10(1) of the Land Ordinance, this provision does not require an objective test.

Lastly, the devolution of the Granted Right of Occupancy upon death is regulated by Section 13 of the Land Ordinance. It declares that:

- *The devolution of the rights of an occupier upon death shall be regulated, in the case of a native by the provisions of Section 19 of the Administration (Small Estates) Ordinance, CAP 30, or, in the case of a non-native, by the law governing the devolution of leaseholds forming part of his estate;*
- *Provided that the aforesaid Ordinance shall not apply to the devolution of the rights of any native using or occupying land in accordance with native law or custom and without having otherwise obtained a right of occupancy under this Ordinance. In such case the devolution of the rights of a native occupier upon death shall be regulated by the native law or custom existing in the locality in which the land is situated.*

The Indian Succession Act of 1865 provides legislation concerning succession of titles to non-natives following death. For the native the provisions of Section 13, above, will apply.

2.3. THE DEEMED RIGHT OCCUPANCY

The incidents of customary land rights have not been articulated authoritatively in any official document, apart from James and Fimbo (1973). Statutory law defines what customary law is (in Section 2 of the Interpretation and General Clauses Act of 1972), and it also provides for the applicability of Customary Law (Section 9 of the Judicature and Application of Laws Ordinance of 1961).

In Tanzania, land is typically considered a communal resource. In a classic case (Tenga, 1992), the East African Court of Appeal borrowed the then classic anthropological thinking, which argued:

- *The Bantu had no idea of a right of the land in itself, land was just there for cultivation and was in no sense a chattel. The general right over the land might be termed an usufructuary, occupational, agricultural right, and heritable. A man had security of tenure as long as he behaved himself and obeyed the chief and, if the land was agricultural, kept it under cultivation... Allocation of the lands was in the hands of the headmen, elders, clan heads or chiefs... The land was there for the community... in other words the right of the community or the general good was overriding (Northcote, 1945).*

Thus the landed right for the African native was taken to be a permissive occupational right, a usufructuary title, that did not confer on the individual a title to land. This thinking had been followed in other cases by the same court and by the Privy Council. Yet more particular studies of customary law of African tribes, such as the Haya, recognise various forms of ownership in that tribe. These include public lands, individual lands, communal lands, family lands and land held by virtue of office, such as Chieftaincy or Priestly Office. This has been the case with the Chagga who had the Kihamba system of individual land ownership. Particular studies of African communities do show a diversity of systems of landholding.

The incidents of land allocation, land holding and land transfers cannot be generalised for African communities. The communities in Tanzania have three major levels: the family, the clan and the tribe. Customary land rights will be those practices and usages applicable within the tribe and clan. Land may be assigned for use by a family, for example for building homesteads or for cultivation. Other land may be used by whole clans, for example, grave sites, ritual areas, grazing land, or

water-sources, and so on. Tribal land may encompass pasture land, ritual groves, commonage, and so on. The incidence of tenure varies from tribe to tribe.

There are general requirements, however, that allocation of land must be validated by the recognised authorities. In pre-colonial times, each tribe, clan and family had its own land allocating authorities, especially among agricultural communities. With the coming of the British and indirect rule, the Native Authorities, in many cases, usurped the land allocating functions of traditional land allocating authorities. The Native Authorities through a system of bye-laws regulated land use and enforced minimum-acreage cultivation regulations. Failure to abide with these bye-laws was subject to penal sanctions.

The Native Authorities were gradually replaced by the Local Government Authorities created under the Local Government Ordinance, CAP 333, enacted in 1953. The Local Authorities were different from the former Native Authorities in that the Government was elected and not appointed by traditional right, real or fictitious. The land allocating functions passed over to the local authorities as representing the native community. By 1963 the Native Authorities and African chiefs were phased out completely.

Since 1963, however, the position of Local Government has varied. In 1972 the Local Government system was held at bay by the passage of the Decentralisation of Government Administration (Interim Provisions) Act of 1972. This Act created Development Councils which in effect superseded the Local Government Authorities. The Development Councils (in many instances) took over the functions of local authorities in land allocation and control of usage. This was happening without the formal repeal of the Local Government Ordinance. Matters became more complex with the Passing of the Villages and Ujamaa Villages (Registration, Designation and Administration) Act No 21 of 1975. That Act was to apply to the whole of Tanzania in the village system. Villages could be registered under the Act, and once so registered, the village councils assumed corporate personality. Hence, they could sue or be sued, and own property such as land (Sandi in this volume). The Village Councils was empowered to regulate economic activities in the village and oversee all land usage and transfers of land. It was provided in the directions made under the Act (Direction 5(1)) that the District Development Council had to allocate land for village use to the Village Council. It is unclear where the District Development Council derived its mandate to allocate land or whether it had any land reserved to it for allocation to villages. The Village Act of 1975 was replaced by the Local Government (District Authorities) Act, No 7 of 1982. This later Act repealed also the Local Government Ordinance, and incorporated the system of villages under its structure.

On the basis of these laws, it would appear today that the so-called *native community* under the Land Ordinance may be the District Authority. Hence, at a lower level of administration this is represented by the Village Council. Therefore, it would appear that practices sanctioned by the Village Council in the allocation, usage and disposition of land are the ones relevant to any legal concept of customary land tenure. It is a fact that many villages are not as yet well structured and the system followed is still that of customary tribal tenure. However, the Village Council does have legal power to supersede these practices. The future seems to be ambivalent until such times as proper land regulation can be enacted by the National Assembly.

It is important to note however, that there have been recommendations that Villages should be granted a 999 years Right of Occupancy. Presumably from such a grant, derivative tenures could be granted to members of the Village. This has not been legislated upon as yet. In the late 1960s there were recommendations for Rules Concerning Land Held Under Customary Law. These were proposed under Section 9A of the Judicature and Application of Laws Ordinance, CAP 453, but these have not been promulgated as yet. These may provide a basis for restructuring and enactment of uniform Regulations on Land Tenure for customary landed rights.

3. PASTORAL LAND RIGHTS

An anthropological view of Maasai pastoral land rights is as follows:

The pastoral Maasai acquire exploitation rights to land by virtue of territorial affiliations. Masailand and its inhabitants are divided into some twenty territorial sections within which people are more or less free to exploit pasture and water resources. The various sections differ

greatly in size and number of inhabitants. The borders of the sections are founded on customary use, but were formally decided in colonial times. The section boundary is not absolute, however, in times of drought and stress people negotiate access to pasture and water across sections (Talle, 1988).

The ownership and use of land are radically different between pastoral and agricultural communities. Whilst individual incidents of ownership are manifest in an agricultural community, it is communal tenure that is prevalent in a community of pastoralists. There is an inherent economic sense in this, as suggested by the following:

The economic and agricultural advantages of a communal system of land tenure in a community of pastoralists or mixed farmers are immediately obvious. Very few large stretches of pastoral country are completely uniform in their characteristics, particularly when seasonal variations are taken into account. Some parts are consistently better grazing grounds than the rest, others better than the average at certain seasons. Under a system of individual tenure some stock owners must get sub-standard grazing ground. However, under a system of communal tenure all have equal access to the good grazing ground as well as the bad. Hence, this means, if the land is properly managed, that its stock feeding capacity will be maximised (James and Fimbo, 1973).

For Tanzanian pastoralists, communal land tenure is the central form of landholding. However, individual tenure is important and complementary, largely for domiciliary settlement, grazing reserves, specific resources such as certain trees and plots for agricultural activity.

3.1. THE ELEMENTS OF COMMUNAL LAND TENURE

3.1.1. Corporate Personality: Communal property, including land, can only be held through a corporate unit. This unit must have identity or personality that is distinct from its members. It may be a family, a clan a tribe or a territorial unit.

The corporate unit is legally defined by a number of conditions. First, the unit must have a distinct name and identity from that of its members. Property by members of the unit may only be held in the name of the corporate unit. Second, the unit must have a clearly defined membership, and procedures for acquiring and terminating membership must be known. For kinship groups once a person is born into the group he acquires membership automatically. For territorial corporate units the procedures may be different. One may be required to seek permission from the territorial assembly or council that represents the corporate unit or to seek adoption into the group. Third, the corporate unit must have a defined structure for purposes of landholding. It must be clear who may represent the group in cases of allocation, transfers or other matters regarding disposition of land. Fourth, the unit must not be transient, and it must have physical perpetuity. In case of a territorial unit, domiciliary settlement over a period of time might be adequate proof of continuity. Fifth, the law or a body of identifiable norms must attribute rights and duties to the given corporate entity. This means with regard to the given form of corporate property the corporate unit must be legally responsible for the use and misuse of the said property. The Land Ordinance recognises that a Deemed Right of Occupancy may be held by a *Native Community*. It is submitted that this is a recognition of corporate land holding.

3.1.2. Communal Land: Land that is under the control of the corporate unit and that has not been allocated for use to a unit lesser than the corporate unit itself, such as the family or individual, may be regarded as communal land. Examples of such land include forest lands, grazing lands, hunting lands, unallocated arable lands and abandoned lands within the control of a land allocating authority (James and Fimbo, 1973)

The problem has been largely the identification of the corporate unit that has the rights over communal land and the determination of the land allocating authority within it. As discussed above the history of native land allocating authorities has been chequered. Indeed, there has been a total confusion in relation to land allocation authorities, as suggested by the following:

The whole structure of traditional hierarchy in relation to land administration has crumbled and the method by which the vacuum is filled is veiled in obscurity. In some places, such as Bugufi division, Ngara district, and North Mara, we find the Village Development Committee exercising

the function of land allocation. In the Arusha and Meru districts, allocation is carried out by the Natural Resources Committees which were, until 1960, called the Land Committees. The NRCs are Committees of the Arusha Meru District Council, each is composed of 11 Councillors and the District Agricultural Officer as an ex-officio member. Yet in other areas District Executive Officers have assumed the powers and, in some districts, the District Councils (James and Fimbo, 1973).

Today this role has been increasingly taken by the Village Councils under the Local Government (District Authorities) Act of 1982 (see 2.3). However, even under the present Act there is still a problem of absence of uniformity of land allocating bodies and the lack of central control. The confusion is illustrated in one case, in which land was granted to a parastatal in total disregard of the existence of the Village Council (Tenga, 1992). Section 5 of the Land Ordinance requires the President to have regard to native laws and customs in exercising his powers under the Ordinance (see 2.1). Moreover, Section 6 of that Ordinance requires the President to consult with the native authority in control of the land, which, in that case, would have been Village Council through the District Development Council. The Barabaig Iraqw community resident in an area used the said land for pastoral purposes and this customary usage was completely ignored. Moreover, the Native Authority was not consulted. Even if it was consulted, subsisting rights, including communal rights, could not be extinguished without following the mandatory procedures of the Land Acquisition Act of 1967. These procedures require consultation and compensation before an entrenched right may be extinguished.

The negative consequences that flow from the aforementioned confusion have been amply summarised, as follows:

The unsatisfactory aspects of land control under customary system are an absence of uniformity of land allocating bodies and the lack of central control. Because of the fact that different bodies are concerned with allocating land, there is an indication of diverse policies, and cases are not uncommon where the same piece of land is allocated to different grantees by different bodies. The lack of central control means that overriding governmental policies are not taken into consideration in the system of land administration. Moreover the absence of rules laying down norms for the guidance of the allocating authorities makes it easy for these bodies to misuse their powers (James and Fimbo, 1973).

Suffice it to note that the law today gives customary land allocation powers to District Authorities. However, it is unclear how these powers are to be exercised by these bodies or those subordinate to them. These problems are compounded for communal lands, which depend on the customary land use practices of given communities. For agricultural communities, it would appear that communal lands are the equivalent of *public lands* at the clan or tribal level. Such lands form a reserve of land for future cultivation or supplement to agricultural practices. This is not the case with pastoral societies. Communal lands, in the form of pasture lands, are the basis for pastoral production. These lands are not a reserve for the Maasai, but the very lands that are used for the major productive activity, that is to say the grazing of livestock. A description of practices of two communities which are the major pastoral groups in Tanzania is instructive.

3.1.3. Pastoral Communities: The land tenure system of the Maasai has not received comprehensive treatment by legal scholars and what is known is derived from the work of anthropologists. The first essential factor for a Maasai is membership in the grazing or pastoral community. There are socio-political factors that may determine the membership in a pastoral society. These factors, which are the constitutional elements of such societies, are so far the subject of sociological rather than legal studies. Membership combines a complex set of principles related to three main factors: kinship, residence and age-sets. A Maasai might own livestock due to his membership in a kinship group (clan, lineage, family, and so on). Also a Maasai may graze his herd in a certain area due to his membership in a territorial community of section. Yet one may have certain obligations with regard to say the security of the livestock based on membership in the age-sets. These different levels determine rights and duties in a unique way not found in agricultural communities.

In the case of the Maasai, the following has been written:

Land tenure in East African pastoral areas was traditionally communal and to a large extent it so remains. Rights to grazing areas obtained by virtue of membership in a social unit. Due to ecological variability and erratic rainfall patterns, traditional access areas and their concomitant social units are large. The social unit sharing an area (the access group) may be a clan, as among the Samburu, a section/sub-tribe as among the Maasai, or some other location grouping. Below the access group there are smaller groups controlling local resources (Grandin, 1989).

A schematic outline of socio-spatial organisation in East African pastoral areas shows the segmentary structure and primary functions at each level (Table 1). It is rather obvious that in the first two levels the kinship principle will form the basis of legal postulates. However, for the remaining levels the residence/territorial principle dominates. It is here that the age-set groups play an important role in dispute resolution and the security of the herds. It is possible using this scheme to find the juridical basis of the *access group* by analysing the relative importance of kinship residence or the age-sets factors at each level. Then, it is possible to set clear rights and duties with regard to land tenure. These have been differentiated as spatial ties (compound, neighbourhood, community) on one hand and cross-cutting social ties (affinity, clanship, age-set) on the other (Grandin, 1989). Whatever, any particular study of the juridical basis of land tenure in any ethnic group ought to determine how rights and duties are allocated under the above mentioned principles that are at once certain, that is to say fixed and fluid.

A study of the Barabaig land tenure system shows a similar outline to that in Table 1. A common property tenure is the principal form of land-ownership among the Barabaig (Lane, 1991). A traditional political structure has authority over access to resources and rights that apply to different levels based on particular circumstances. There are three kinds of property: private, clan and community property.

Table 1: Scheme of socio-spatial organization in East African Pastoral Areas (following Grandin, 1989)

Size	Type of unit
Smallest	A: Household production unit <ul style="list-style-type: none"> • locus of cattle ownership • autonomous decision-making • highly mobile • flexible; may split seasonally • viability problem (labour/animal balance)
	B: Joint residential unit (compound/homestead) <ul style="list-style-type: none"> • joint for herding/watering • strong prescription for food sharing • domestic self-help unit
	C: Local unit (eg neighborhood) <ul style="list-style-type: none"> • broader cooperation/information exchange, sociability • share/control local grazing and water resources • often core nucleus population with regular influx/outflow of others
	D: Primary resources sharing units (access group) <ul style="list-style-type: none"> • large to allow for resource fluctuations • theoretically free access to all members • largest unit of traditional administration
Largest	E: Political society/ethnic group <ul style="list-style-type: none"> • ideological unit • shared language and culture • limited access throughout areas in time of severe stress

Private property includes the homestead, the midden, grazing reserve, calf and small stock holding pen, rest and occasional milking area, shade area and homestead plot. This property is controlled by the head of the household. Any dispute in relation to it is settled by the neighbourhood council (*girgwaged disjeud*). Clan property amongst the Barabaig includes the well, empty homesteads,

farm plots, graves and grave grass reserves. Juridical authority for matters related to this property is vested in the clan council (*huland dosht*). Community property is made up of the earth itself, Mt Hanang (a holy mountain amongst the Barabaig), sacred trees, meeting trees, and so on. The juridical authority here is the Barabaig General Assembly (*getabaraku*). Once again a complex interrelationship between kinship and territoriality intermingles with nomadism and other factors to express juridical relations. Further definitive studies of how these relations are determined are not available to date.

3.2. RE-CONSTRUCTION OF PASTORAL LAND TENURE: STATUTORY ATTEMPTS

There have been attempts to legislate for pastoral land tenure beginning with the Regulations under the Land Ordinance, then the Range Development Act of 1985, and finally the model land use rule.

3.2.1. Regulation of Granted Rights of Occupancy: The Granted Rights of Occupancy are subject to development conditions. Under Section 21 of the Land Ordinance, standard Regulations were issued to cover three categories of Rights of Occupancy, agricultural, pastoral and mixed agricultural and pastoral.

In 1926 the British made the first Land Regulations under the Land Ordinance. These covered land for agricultural purposes and mixed agricultural/pastoral purposes. In 1927 the Land (Pastoral Purposes) Regulations were enacted. These imposed the following conditions on every occupier of a Right of Occupancy for pastoral purposes:

- *that he will within the first five years of the term effect or place on the land occupied improvements to the value of five shillings per acre. Such improvements may consist of any of the permanent improvements or non-permanent improvements specified in the schedule of the Land Regulations 1926, but at least 50 per cent of the value of said improvements must be in livestock the property of the Occupier.*
- *that he will at all times after the expiration of the fifth year of the term have and maintain on the land occupied improvements of the nature and to the value required under the last preceding covenant; that he will use the land only for pastoral purposes or for purposes ancillary thereto. Should he desire to use any portion thereof for purposes which give notice of his intention so to do, when permission may be granted on his undertaking to pay rent for such portion at such rate as may be determined.*

The problem with these Regulations was they equated development to monetary investment. Often Occupiers would invest a financial outlay equal to the required, say in buildings, and thereby comply with the condition. The Land Regulations of 1948 sought to overcome this difficulty by making specific requirements, say, in the number of livestock to be maintained on the property. Regulation 6(3) implies the following terms and conditions into the Certificate of Occupancy:

- *that the occupier will during the first year of the term of the right of occupancy fully stock with his own cattle one-seventh of the total area of the land subject to the right of occupancy to the satisfaction of the President, and during each of the next four years of such term fully stock a further one-seventh of the total area of such land with his own cattle in like manner as aforesaid;*
- *that the occupier will at all times during the terms of the right of occupancy have and maintain fully stocked with his own cattle to the satisfaction of the President all areas which he is required to stock under conditions (a) set out in this sub-regulation amounting in the fifth year of such term and thereafter to five sevenths of the total area of such land.*

By 1962 about 1,500 Rights of Occupancy were in existence and about 700 were subject to the 1926 and 1927 Regulations. It was therefore found necessary to subject all Rights of Occupancy to the Land Regulations of 1948. This was done under the Rights of Occupancy (Development Conditions) Act of 1963, CAP 518.

3.2.2. Regulation of Deemed Rights of Occupancy (Customary Land Tenures): Specific regulation of customary tenures has only been done through use and conservation bye-laws

enacted under Local Government legislation. However, in the early 1960s there was a unique attempt to regulate customary landed interests by statute. This was done under the modernisation programmes of village settlements, for agricultural communities, and range development for pastoral communities.

The modernisation of agriculture was regulated under the Rural Settlement Commission Act of 1963, later superseded by the Land Tenure (Village Settlements) Act, No 27 of 1965; as amended by the Rural Settlement Commission (Dissolution) Act, No 17 of 1966. Through the mechanism of these statutes, programmes were to be implemented whereby traditional agriculture would be transformed by organising peasants in modern government-supervised settlement schemes. The modernisation of traditional pastoralism was to be achieved through a machinery set up under the Range Development and Management Act, No 15 of 1964. The Act was aimed at achieving *a more affective use of grazing land by total communalisation of the land and supervision of the scheme by ranching associations*. The leap into modern life never occurred, and the schemes resulted in a fiasco.

Ever since the failure of the Range Development programme, no other comprehensive attempt has been made to regulate pastoral land under customary law. Several factors militate against the effort to regulate this land, of which two are foremost. First, since colonial times, the official thinking in Tanzania has been centred around agriculture. Pastoralism has been taken to be a marginal activity, if not outrightly counter-productive. Even legislation that refers to pastoral rights is still addressed to farmers. A classic example are the Rules Concerning Land Held Under Customary Law proposed under the Judicature and Application of Laws Ordinance. Section 8 of the Rules provides:

- *where a person has no grazing land or his land is insufficient for grazing purposes he may use land which has not been allocated to anyone;*
- *such use of public land shall not be a bar to another person being allocated the land if that person can put the land to better use. On such allocation the first person will vacate or be removed from the land.*

The rules here assume individual ownership of grazing land just as a farmer owns farmland. Furthermore land used for pastoral purposes may be allocated to any other person who may put it to *better use*. The pastoralist *will vacate* and if necessary *be removed from the land*. Thus the precariousness of pastoral land rights is inbuilt within the law and even condones the use of force for expropriation of the pastoralist.

Second, the lack of information on the judicial arrangements of pastoral communities renders the legislator ineffective. Studies abound on the socio-political organisation of the Maasai, yet there is little attention paid to their legal system. The paucity of such information on the Barabaig make the task of a would be legal reformer much more formidable. Such studies are essential and should be high on the agenda for the social research community.

4. CONCLUSION

This review has shown the complex nature of the land law in Tanzania. Furthermore, the review shows clearly that the land rights that are most in jeopardy are those held under customary tenure, particularly by pastoral communities. Under current land laws, pastoral land rights exist in Tanzania as a peripheral system of land tenure. General land law applies to pastoral rights just as it applies to agricultural rights. It is important to note that varieties that exist with regard to functional or purpose, and time classifications for the Right of Occupancy apply too in the same manner to the granted pastoral right. The allocation and disposition processes for the granted right of occupancy are the same for both agricultural and pastoral rights.

In many cases, expropriation of land held under customary regimes has been undertaken in a manner that appears unconstitutional, particularly through the Rural Lands (Planning and Utilization) Act of 1973 (Tenga, 1992). Several cases are currently the subject of litigation in the courts. As matters stand customary pastoral rights to land are in a very precarious position indeed.

The relevance of this issue to community-based conservation should be clear. Without land under their communal ownership, rural communities will do little to promote conservation of wildlife. Draft land policies attempt to address the issue of customary rights in a more balanced manner. At the same time, conservationists wishing to promote the concept of community-based conservation will need to work within the current land laws to help communities acquire the strongest possible ownership rights to their traditional land.

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5. PASTORALISM, CONSERVATION AND DEVELOPMENT IN THE GREATER SERENGETI REGION

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1. INTRODUCTION

In December 1985, the Ministry of Tourism, Natural Resources and Environment held a workshop to discuss past, current and future land use trends in the Serengeti-Mara region. Much of this area comprises the Serengeti National Park, the Ngorongoro Conservation Area (NCA) and Masai Mara National Reserve (IUCN, 1986). Contributions at the workshop were biased in favour of the conventional preservation approach to wildlife conservation. However, there was a pronounced recognition of the necessity to appease the local communities, in order to enlist their cooperation. As a native of this region, and, having served eight years as the elected representative of the Ngorongoro Constituency in Parliament, I am deeply involved with the issues of this region. This paper presents an alternative to the one-sided approach to conservation often adopted by wildlife conservationists.

Amboseli National Park and the Masai Mara National Reserve are important protected areas in the Kenyan portion of Masailand. The conflicts over land use there resemble those being confronted in the Ngorongoro, Serengeti and Loliondo areas of Tanzania. Visits to Amboseli and Masai Mara allowed comparison of the approaches being taken to resolve these conflicts with methods used in Tanzania. This report provides a summary of a previous paper (ole Parkipuny, 1991).

2. BACKGROUND

Ngorongoro Crater, Serengeti, and Masai Mara are renowned worldwide as natural attractions that guarantee memorable experiences to their visitors. Serengeti and Masai Mara owe their fame to the spectacle of the largest concentration of wild ungulates in the world. However, the Serengeti is much more than a wildlife area. It is also the home of tens of thousands of indigenous people. Yet conservation efforts have concentrated on wildlife, and neglected to consider the fate of these people. To understand how this has come about, it is necessary to take an historical perspective.

2.1. CONVENTIONAL WILDLIFE PROTECTION

In many countries hunting has provided essential protein for the poor, and entertainment for the rich. In Europe, wildlife populations declined drastically in the wake of the industrial revolution. Royal courts declared reserved hunting domains for the privileged, where hunting by peasants was prohibited.

When Europeans colonised North America, they encountered indigenous communities living in a great continent endowed with an extraordinary wealth of biological resources. The settlers massacred the Indians and entire herds of wild animals. The scale of wildlife destruction has never been equaled, although it was repeated during the colonisation of Australia and New Zealand, and of many other nations. However, a few far-sighted settlers were concerned by the loss of biological resources. They campaigned systematically to make the public and government aware of the disastrous consequences of the ongoing destruction.

2.2. PROTECTED AREAS IN EAST AFRICA

When Europeans penetrated the interior of East Africa, they were overwhelmed by the immense wealth of wild animals. They embarked on a hunting spree that was sustained for decades and brought several species to the verge of extinction. In Africa, as in America, a few far-sighted members of the ruling community led public campaigns for the preservation of the rich wildlife of the region. This prompted the German and British Colonial Administration in the 1890s to enact some of the earliest game protection legislation in East Africa (ole Saibull, 1978). However, fully protected areas were not set up until the 1940s. In 1940, Serengeti was upgraded from a closed Reserve to the pioneer National Park in the region (Hayes, 1977). The first National Park to be gazetted in Kenya was Nairobi NP, in 1947.

In 1975, the Kenya Government released a new wildlife policy, followed in 1976 by the Wildlife Conservation Management Act. This led to the amalgamation of National Parks with the Game

Department to form the Wildlife Conservation and Management Department (WCMD). WCMD was to integrate wildlife conservation with the welfare of local human communities. A comprehensive plan for the development of wildlife conservation and tourism followed. The Wildlife Planning Unit was also set up to provide the relevant planning support to protected areas (Western, 1982). In 1989, WCMD was superseded by the single parastatal organisation known as the Kenya Wildlife Service (KWS) (Lusiola, 1996).

In Kenya, National Parks are managed directly by KWS on behalf of the central government, while National Reserves are owned and managed by county councils. Although KWS provides national policy guidelines and gives regular advice and technical support to National Reserves, the county councils have a great deal of autonomy over the affairs of their respective reserves.

Kenya has had remarkable success with its tourism industry, due to continuous and rigorous advertisement campaigns abroad, coupled with quality services at home. The industry has become the leading foreign exchange generator in the Republic. Kenya has even superseded other African countries endowed with superior natural features, larger populations of wildlife and more diverse environments. In 1985, for example, Kenya received 541,200 tourists, compared with 361,640 and 78,075 for Zimbabwe and Tanzania, respectively. In the following year, Kenya had 604,000 visitors compared with 395,091 in Zimbabwe and 103,209 in Tanzania (WTO, 1987)

Since Tanzania attained independence in 1961, it has trebled the number of its NPs from 4 to 12. The NPs, together with the Game Reserves, Forest Reserves and Game Controlled Areas, now account for some 26% of the country's land area. Few countries have set such a high proportion of territory aside for wildlife protection. Despite their immense tourist potential, these areas have made a persistently dismal contribution to the national economy. Indeed, this reflects years of indecision on the role of tourism in national development. Short profiles are now presented of Ngorongoro Crater, Serengeti and Maasai Mara, the most popular protected areas in Tanzania and Kenya.

2.2.1. Masai Mara National Reserve: Masai Mara is the most visited game viewing area in Eastern Africa. Wildlife patrons see the development of large scale commercial wheat farming, propelled by Kenya's national wheat self-sufficiency goal, as the gravest threat to Masai Mara. Arable agriculture is rapidly advancing right to the boundary of Masai Mara, and threatens to encompass the whole of the Loita Plains in the northeast and the Isiria Plateau to the northwest. As a consequence, the Loita Plains and the Isiria Plateau will be lost. This will deprive the wildlife migration of crucial dispersal areas. Furthermore, the local Maasai pastoralists and their livestock will be displaced and may be forced into direct conflict with the Mara.

2.2.2. Serengeti National Park: The grandeur of the Serengeti radiates from its extensive open grasslands and the largest herd of migratory wildlife in the world. The main concern in this vast, 14,263 sq km NP and in the adjacent Maswa GR, is poaching. This problem can be understood in the context of economic pressures on local people and the deterioration of the law enforcement administration. Indeed, this is also coupled with the low level of tourism revenue accruing from the NP relative to its size. Other problems include: increasing encroachment by peasant settlements; illegal movement of livestock into the NP; and, seasonal wild fires ignited by hunters, poachers, honey collectors, cattle rustlers and herders.

2.2.3. Ngorongoro Conservation Area: Ngorongoro Crater is one of the greatest unbroken calderas in the world: 610 m deep, 20 km in diameter and 311 sq km in area. The sheer physical beauty of the volcanic landforms and the diversity and abundance of the wildlife populations in the Crater are famous worldwide. Equally, the Crater is just a small part of the area (Fosbrooke, 1972). Although tourism is focused on the two main craters of Ngorongoro and Empakaai together with Olduvai Gorge, they constitute only 3% of the whole of the NCA. Forests account for another 10%. The largest of these is the Northern Highlands Forest Reserve. Wildlife conservation is predominant in these sections of NCA. Maasai resided in the Crater until they were evicted in 1974. However, they still make seasonal use of the grazing, water and salt licks in both the craters and the forests, but only with permits issued occasionally by the administration.

The NCA can be divided into two land-use zones. The non-forested highland is used predominantly for Maasai habitation and livestock grazing. Here, the density of wildlife is low, and visits by tourists

are restricted. The rest of the NCA is mainly wet season common rangelands used by both domestic and wild animals. This natural pattern of resource use was recommended as the best pattern to promote multiple land use for this area (Dirschl, 1966).

Problems prevalent in Ngorongoro include poaching, fires, arable agriculture from within the area and encroachment from the south. However, apart from the threat to the rhinoceros, the most controversial issue in Ngorongoro is the historical and legally stipulated rights of the indigenous Maasai to inhabit and develop NCA. Wildlife preservationists would like the NCA to become a NP in which local rights of occupation are extinguished.

3. THE BROADER PERSPECTIVE

3.1. THE GREATER SERENGETI REGION

The Greater Serengeti Region extends over more than 60,000 sq km, and encompasses the NCA, Serengeti NP, the Lake Eyasi Basin, Maswa GR, the Grumeti, Ikorongo, Loliondo and Lake Natron GCAs in Tanzania, together with Maasai Mara NR, the Loita Plains, the Isiria Plateau and the Loita Highlands in Kenya. The value of the area as a whole exceeds the sum of its parts. However, in this area, as in the rest of East Africa, the dominance of the preservation approach to conservation has impeded the evolution of conservation strategies and led to a fragmented and insular approach to conservation and development. The silence that surrounds this fundamental issue is in glaring contrast to the publicity invested locally and abroad in tourism.

3.2. HOME OF MAN

The rich human heritage of the area is equally important as the wildlife, and includes 14 district indigenous cultural communities. Historically, these people have relied on arable agriculture for subsistence, although both animal husbandry and hunting have provided important supplements. In contrast, the southern frontier, the Lake Eyasi Basin, is the home of the Hadzabe people, who continue to follow a traditional hunting and gathering system.

The Hadzabe community has been deeply disturbed by the haphazard and unscrupulous hunting of wildlife in the Lake Eyasi Basin. This land supplies the meat, charcoal and firewood for the densely populated agricultural belt of Oldeani and Karatu, neighbouring Hadzabe country. Professional game hunters are also taking their toll. Both pre- and post-independence Government efforts to launch development initiatives aimed at socio-economic transformation of the Hadzabe have failed (Bwire, 1987).

Tatoga pastoralists, of which the Barabaig is the largest group, are also inhabitants of this southern frontier. They and their livestock share the natural resources of the Lake Eyasi Basin with the Hadzabe and wildlife. However, pastoral activities do have some adverse effects on the Hadzabe, as they disturb the distribution of wildlife in the area.

The Sonjo and Njemps ethnic groups occupy small areas of the Lake Natron Basin. The Njemps are a tiny community in the Nguruman area north of Lake Natron in Kenya. The Sonjo are concentrated in five villages in Tanzania adjacent to Nguruman area in a narrow valley fed by permanent streams, in the mountains east of the Rift Valley. These two groups have developed a well-established system of small-scale irrigation. With appropriate improvements to this system, these valleys could perhaps produce surplus fruits and vegetables for the nearby prospective urban centre at Loliondo.

The Maasai are the largest pastoral ethnic group in east Africa, and occupy virtually the whole of the eastern and northern frontier of Serengeti NP and Masai Mara NR. Of the fourteen indigenous ethnic groups living in the region, the Maasai occupy by far the largest area of land. This community is unique for its cultural code that precludes consumption of meat from wild animals. Arable agriculture has only recently become a significant source of livelihood for the Maasai. Central to Maasai identity is the institutionalised age set structure, which can be harnessed to recruit the youth and the whole community for development and conservation purposes. Ironically, it is this very factor that continues to be officially misunderstood and condemned, despite the obvious role it has played in safeguarding the rich biological heritage of the region. It is not a mere accident of history that many of the most spectacular wildlife protection areas in east Africa are found in territories previously part of Masailand.

3.3. THE IMPACT OF WILDLIFE ON LOCAL COMMUNITIES

3.3.1. Population explosion: The wildebeest population of the Greater Serengeti has increased from 263,000 in 1961 to 1.5 million (TWCM, 1994), an increase of some 400%. This has been hailed by preservationists as a conservation success, despite the destruction of vegetation within protected areas and of crops of local communities living adjacent to the park boundaries.

3.3.2. Western frontier: The whole of the western frontier of the Serengeti NP and Maswa GR, where the GCAs of Grumeti and Ikorongo are now situated, was once sparsely populated. Now, these areas have a fast-growing human population, living in legally registered villages. The people of this area produce maize, millet, sorghum and cassava for subsistence and cotton to earn cash. They also raise livestock and surplus wildlife to meet for protein, despite prohibition by statutory law. Successful violation of the law, combined with economic imperatives, has encouraged commercial poaching. The western frontier is also the expansion area for people forced to leave the Lake Victoria zone, now one of the most heavily settled and extensively cultivated areas in rural Tanzania.

As the huge wildebeest and zebra herds spread beyond the park into the western frontier, they destroy food and cash crops. Villagers try to protect their crops, and compensate themselves with a harvest of meat. Some is consumed locally, and some is sold to boost incomes. This cushions the effects of poor rains and declining soil fertility.

3.3.3. Eastern frontier: Most of the eastern frontier, including the whole of the eastern half of Serengeti NP and the whole of Masai Mara NR are now preserved exclusively for wildlife and tourism. This area was previously part of an extended Maasai pastoral system whose rangeland resources were used by both livestock and wildlife. Until the 1950s, the north section of the present-day Serengeti NP was part of Ngorongoro, while the eastern section was administered by Loliondo. When the park was created in 1959, the Maasai of Western Serengeti and Loliondo lost vast grazing areas, salt lick grounds and permanent sources of water essential to their pastoral economy. These rangelands are partially infested with tsetse flies, but provide an important livestock refuge in times of drought.

At the onset of the rains, the ungulate migration moves east and northwards, eventually crossing the borders of the protected areas into the adjacent Maasai villages, group ranches and rangelands. The herds stay on the eastern frontier until the end of the rains. Before retreating back to the protected areas, they disrupt the rotational grazing system that has been the backbone of Maasai range management practice, deplete pasture, and displace livestock. As a result livestock starve and pasture is overgrazed. The pastoralists also lose livestock from diseases transmitted by wildlife, like malignant catarrhal fever.

3.3.4. Lopsided coexistence: Maasai rangelands continue to provide critical dispersal zones for wildlife from four major protected areas in Tanzania and Kenya. First, the eastern and northern frontiers of Serengeti and Masai Mara is the home of thousands of resident wildlife. This area has also provided a temporary refuge for those driven out of Serengeti NP by trophy poachers. It also serves as the wet season domain and breeding area for the migratory wildebeest. All the 25 registered livestock villages of Ngorongoro District suffer from this migration.

Similarly, the wildlife of Manyara and Tarangire NPs depend heavily upon the range resources of Maasai villages in northern Kiteto and western Monduli. The Simanjiro plains and woodlands to the south of Tarangire, together with the rangelands extending northward to Lake Natron, and to Gelai and Ketumbeini mountains, constitute the only dispersal zone left open to wildlife from the two NPs. The group ranches of Loitokitok serve as a critical dispersal area for the wildlife of Amboseli and Tsavo NPs and the Chyulu Hills. Lastly, Maasai ranches on the Kitengela and Kaputie plains to the south of Nairobi NP constitute the only dispersal area left open to the wildlife.

In summary, virtually the entire land area currently used by the pastoral Maasai support wildlife grazing side by side with domestic stock. Before European hunters, trophy poachers and animals coexisted in all the pastoral areas of this region.

When Serengeti, Amboseli and Masai Mara were first gazetted, the authorities conceded the rights of the Maasai to continue to live in these protected areas. However, eventually the

pastoralists were forced to vacate their lands. In 1957, the late Professor Bernard Grzimek offered to raise money to purchase all the land now occupied by Serengeti NP and the NCA, exclusively for wildlife protection and tourism. When that offer was turned down by the British colonial authorities, he came up with an alternative proposal to place the area under the direct jurisdiction of the United Nations.

The idea of annexing the Lake Natron basin to the NCA was mooted in the early 1980s. The Frankfurt Zoological Society has proposed the expansion of Manyara NP and the establishment of a new conservation area in Simanjiro to cushion Tarangire NP. Similar proposals have been made at different times for Loitokitok, the Loita Hills, Kitengela and the Kaputie plains. In Loliondo Division, a 10 km wide *de facto* buffer zone has been arbitrarily set up along the length of the eastern border of Serengeti NP. This has occurred even though buffer zones are not provided for in Tanzanian law. Furthermore, the Maasai of the villages of Ololosokwan, Soitsambu, Oloipiri, Loosito and Arash, who own the land, have not been consulted, and have not consented to the establishment of a buffer zone.

Buffer zones, dispersal areas or conservation and management areas, should safeguard range resources for wildlife that migrates out of the protected areas. This implies that the development of local communities in the areas beyond protected areas will be strictly controlled. However, the experience of Maasai with Serengeti NP, NCA and Amboseli NP, when their cooperation was sought in establishing such areas, has made them wary of promises made by both Tanzanian and Kenyan authorities. As a result, they have a deep-rooted antagonism towards proposals to extend protected areas onto their land.

4. LOCAL COMMUNITY BENEFITS AND WILDLIFE EXTENSION

4.1. BENEFITS FROM WILDLIFE TO LOCAL COMMUNITIES

In contrast to most other African countries that possess significant wildlife populations, Kenya has considerable experience in channeling some of the earnings of the tourist and wildlife industries into local communities. More than half of the 47 protected areas in the country are National Reserves under the jurisdiction of local county councils. For most councils, tourism constitutes either an important, or more often, the main source of revenue for basic socio-economic services. Kenya also has projects that pay grazing fees to ranches outside protected areas for range resources used by wildlife. Such payments became a major source of income for group ranches situated between Amboseli and Tsavo NPs and Chyulu Hills in the administrative division of Loitokitok.

Local communities have also received revenue for giving permission for tourist campsites or lodges to be set up on their land. Fees are also charged for use of water, firewood and road gravel collected from ranchers' land. Money is also made from the sale of handicrafts and photography fees at designated kraals known as *Maasai cultural centres*.

Before game hunting was banned in Kenya in 1978, local communities living in wildlife rich areas benefitted from hunting concessions. Furthermore, Kenya law recognised the rights of people to be paid compensation for losses caused by wildlife. The Wildlife Act of 1979, Section 62 (1) stipulates that:

Where after the appointed day any person suffers any bodily injury from or is killed by any animal or suffers any damage to or loss of crops or property or, in the case of a deceased person, any other person who was dependent upon him at the date of his death, may make application to a District Committee established by this section, for the award of compensation for such injury or death or damage or loss (Government of Kenya, 1977).

Despite this provision, compensation has been inadequate due to limited funds, inefficiency and dishonesty in the assessment process and in submission of compensation claims, many have been outstanding since 1982.

In Kenya, considerable experience has been built up over the years in designing a conservation and development approach to the management of wildlife resources. Popular policy decisions include the granting of ownership rights over National Reserves to county councils, and the payment of compensation, hunting and grazing fees to group ranches. However, these tend to be

nullified by the lack of an efficient and sustainable framework to ensure that any innovations are implemented. In addition, the main impetus is provided by international organisations. Whilst external initiatives and financial support are needed now, it is important that Kenya becomes independent of external resources, and relies instead on earnings generated by tourism and wildlife.

5. CONCEPTUAL AND POLICY CONTRADICTIONS

5.1. THE TANZANIA CONTRADICTION

Having persistently toed the old conservation line, Tanzania enjoys the admiration of preservationists throughout the world. However, protected areas continue to suffer from a number of problems. These include: out of date policies; poaching; isolation from the public; and, a callous disregard on the part of wildlife managers for the genuine grievances and needs of local communities who share wildlife ecosystems.

The security of wildlife is inherently tied to that of its natural habitat. In this regard, the settled Game Controlled Areas (GCAs) are essentially meaningless for conservation. Wildlife protection in GCAs and Game Reserves (GRs) is the responsibility of the Wildlife Department of the Ministry of Tourism, Natural Resources and Environment. This Department depends on regular budget allocations from central government for funds. In the prevailing national economic crisis, many state commitments are competing for government resources and many carry greater weight than the needs of the Wildlife Department. Consequently, the annual budget allocation the Department receives is grossly inadequate to manage the large and often remote areas under its jurisdiction. It would be more effective if investment in conservation was met directly by revenue generated from wildlife and tourism. Tanzania National Parks (TANAPA) and the Ngorongoro Conservation Area Authority (NCAA), both earn and use tourism revenue. The current success of the tourist industry has increased their annual incomes substantially.

Perhaps the most fundamental cause of degeneration of security of wildlife is the persistence of the preservationist approach to conservation. This concept is contrary to the progressive image of the Tanzanian state. The security of animals in GCAs, GRs, and NPs continues to be entrusted to armed rangers under the command of wardens. Local communities share habitats with wildlife, and are viewed as potential poachers. They are neither involved in decision making nor thought to have a role to play in conservation, despite the contributions they have made in the past. The competence of game rangers has been enhanced by support from government and international wildlife conservation institutions, which have supplied vehicles, uniforms, radios, aircraft, guns and ammunition, in an effort to maintain law enforcement capacity. Equally, these investments have brought only short-term success.

The wildlife authorities have refused to recognise even the most fundamental grievances of local communities. They have persistently been denied rights to:

- participate in decision-making on issues located in their homelands;
- receive direct benefits, or share the revenue generated by tourism and wildlife; and,
- receive, in any form whatsoever, compensation for injury, loss of human life, or damage to property caused by wildlife.

The only benefit individuals receive related to wildlife is for reporting poachers to the authorities, and that is paid only if the culprits are arrested and convicted.

5.2. ARABLE AGRICULTURE BIAS

Agriculture is the mainstay of the national economies of both Kenya and Tanzania. The term *agriculture* applies in England to growing crops and raising livestock. In East Africa, however, the word is restricted to arable agriculture, because most policy and decision-makers have an arable farming background. Consequently national food production strategies are consistently oriented toward arable agriculture, and foreign exchange earnings accrue largely from crop export. In other words, the national perception of rural development is formed and defined under the dominant influence of a crop oriented, agrarian culture. Development becomes largely synonymous with increasing the area under food and cash crops. Livestock production and pastoral systems are inevitably neglected.

Arable agriculture is preferred throughout East Africa even in areas where other land uses have greater potential to contribute to the national economy and are more suitable for the long-term conservation of resources. For example, the eastern zone of the greater Serengeti Region has been used traditionally by both livestock and wildlife. This coexistence was amicable until the intrusion of arable agriculture, with the creation of wildlife enclaves and an explosive rise in the population of wild animals, led to resource destruction and conflict.

5.3. GROUP RANCHES AND SUSTAINABLE DEVELOPMENT

The Maasai have gradually been pushed off the high land and are now confined to the semi-arid areas stretching from the border of Tsavo NP in the east to Masai Mara NR in the west. In the past, the high areas provided reliable dry season grazing and refuge from drought for both livestock and wildlife.

The rest of the ranching zone in both Kajiado and Narok Districts has been demarcated into group ranches, registered and incorporated in accordance with the 1968 Land Group Representative Act. Group ranches were planned to break down communal ownership of land and subsistence oriented livestock rearing. This was to be replaced by sedentary commercial livestock production. Pastoralists were given land ownership titles to restricted range resources to encourage them to take out loans, to finance range and livestock improvements, and so enter the commercial livestock sector (Halderman, 1972).

The pastoralists, however, had their own reasons for embracing group ranches. They were eager to use land with secure titles to prevent further alienation, and retain communal access to range resources over areas large enough for viable extensive livestock rearing. In addition, they were attracted by the opportunities to increase water facilities, dips, and salt licks, that formed part of the development programmes accompanying the group ranch legislation.

Group ranches in Kajiado and Narok Districts have fulfilled Maasai objectives. The possession of land deeds has largely halted the alienation of land by development programmes. In addition, group ranch members graze their livestock within the confines of their own rangelands when resources are adequate. However, in times of stress, such as droughts, they revert to the traditional system of sharing resources over areas beyond ranch boundaries.

Many government objectives have also been met, although there have been some notable disappointments. Ranches have created a sense of identity within the boundaries, which is encouraging gradual sedentarisation of the population. Livestock quality, and production conditions have also improved. Availability of water, dips, and veterinary services has increased. This has facilitated the rearing of improved breeds of cattle that have been introduced in greater numbers to many of the higher potential ranches. Improved production conditions have also stimulated livestock sales and even the marketing of fattened steers on a commercial basis.

Apart from disappointment over the slow spread of sedentarisation, the main concern of Government has been the outright refusal by many group ranches to take credit to finance socio-economic transformation, and the poor repayment of the loans that have been taken out. Second, although group ranch members are collectively required to limit livestock holdings by selling-off animals, the group ranch executive committees have not enforced this.

6. CONCLUSIONS

In the second half of this century, the disastrous consequences of a reckless approach to development, and the limitations of conventional wildlife preservation, have become apparent. The solution to the problem of conservation is not merely to strengthen the power of the authorities against local communities. On the contrary, the solution lies in planned integrated management, geared to harmonise the conservation of biological resources with the need to overcome poverty and develop opportunities for local inhabitants. Such an approach will restore vital community support for the existing protected areas, and mobilize support for the creation of new, integrated management areas, along the lines of Biosphere Reserves. This is the best option for resolving the growing conflicts between conservation, local communities and commercial land users.

The World Conservation Strategy defines conservation as *the management of human use of the biosphere so that it may yield the greatest sustainable benefits to present generations while*

maintaining its potential to meet the needs and aspirations of future generations. This global strategy has as its goal the integration of conservation and development to ensure that modifications to the planet secure the survival and well-being of *all people*.

Tanzania and Kenya have both endorsed the World Conservation Strategy and are signatories to the Man and the Biosphere Programme. However, that commitment is contradicted by the continued predominance of preservationist thinking and practice in the management of protected areas in Tanzania, and the failure to integrate conservation with the needs of local communities in Kenya. The willingness on the part of the state in both countries to uphold wildlife conservation is undoubted. Despite the rhetoric, actual performance in both countries reveals that the development approach has not yet been given practical interpretation.

To conclude, the range resources of Maasai group ranches and villages are critical to the survival of the rich wildlife heritage of both Kenya and Tanzania. If this view were shared by the two governments and international organisations involved, it would be logical to expect a more holistic, integrated approach to the problems of the Greater Serengeti.

Livestock and wildlife constitute the primary resources of Masailand. The two have immense potential to meet the needs of sustainable conservation and appropriate development. The governments of both Kenya and Tanzania urgently need clear, long-term policies on wildlife conservation and the development rights of the people who live in wildlife abundant areas beyond protected areas. Wildlife education and extension projects are of little value while they focus on protected areas dominated by a preservationist philosophy. Cosmetic changes that evade the legitimate socio-economic needs of local communities squander the opportunities still available for a conservation and development partnership. If the Greater Serengeti's natural resources are used effectively the welfare of local people can be improved whilst ensuring the long-term integrity of the richest wildlife heritage in the world. Instead, it now seems a heritage that is destined to be lost through recklessness and short-term perceptions.

The challenges presented by the Greater Serengeti are enormous. They are complicated by the vastness of the land area, as well as by the often divergent interests of local communities, two nation states, the international wildlife lobby, tourism, and agriculture. The task at hand is demanding. It requires unbiased and detailed understanding of the region's complex land-uses, and the dynamics of human, livestock and wildlife populations. It also calls for financial investment on a scale that will allow development a practical strategy to reconcile the outstanding contradictions. Lastly, all sides must be committed to sustainable conservation and development within an overall integrated framework.

The *status quo* cannot be maintained for very long without loss of both the natural and cultural heritage of our homeland. The eviction of indigenous people who have been the vanguards of conservation is a barbaric act of alienation. The world has seen many cases of injustice falsely justified to meet the needs of vested interests. However, history also demonstrates that dictatorship and acts of oppression, in whatever form and however disguised, cannot continue in perpetuity. The preservationist approach to wildlife conservation has aged. Its proponents are fighting against the course of history. At first they promoted conservation for tourists with the lure of earning profits for the poor nations of Africa. However, when the myth was shattered and awareness of the social costs of tourism and failure of protected areas to protect certain valued species they came up with another argument. Hence, increases in livestock, not wild animals, will usher the Sahara to the Equator.

Wild animals, like forests, are among the primary resources of our nations. Wildlife is an invaluable renewable resource that developing nations must learn to use judiciously, so that their benefits accrue today, but leave a legacy for future generations. This will not be achieved by banishing the indigenous wildlife guardians from the land of their birth, and relegating them to marginal areas where impoverishment and deprivation will become their lot.

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6. WILDLIFE LAW IN RELATION TO COMMUNITY-BASED CONSERVATION

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1. INTRODUCTION

Wildlife includes all non-domesticated species of mammals, birds, fish, reptiles and amphibians, together with their natural habitats and environment. Hence wildlife is of economic, ecological and cultural importance. Government, during both the colonial era and after independence, believed that the control and conservation of wildlife should take an important place in planned development, because:

- the rapid rate of increase of the human population means the area of land under full production needs to be expanded;
- the need for controlled off-takes of game animals to protect their educational, scientific, economic and recreational value; and,
- the responsibility held by the state for wildlife conservation on behalf of Tanzania, and of the rest of the world.

Because wildlife contributes to national economic development, Government enacted laws to protect wildlife and its environment. One of the first laws, the Game Ordinance No 20, of 1940 was revised subsequently to formulate much broader legislation, including the Fauna Conservation Ordinance No 17 (1951) and CAP 302 (1959); the National Parks Ordinance CAP 253 (1948) and CAP 412 (1959); the Ngorongoro Conservation Area Ordinance CAP 413 (1959); and, the Wildlife Conservation Act No 12 (1974).

2. CATEGORIES OF PROTECTED AREAS

The current wildlife laws in Tanzania recognise four categories of legally Protected Area (PA). These include: Game Reserves (GRs) and Game Controlled Areas (GCAs) which are managed by the Government Department of Wildlife; National Parks (NPs) managed by the parastatal Tanzania National Parks (TANAPA); and, the Ngorongoro Conservation Area (NCA) managed by the parastatal Ngorongoro Conservation Area Authority. The category of PA known as Partial Game Reserve is still allowed under current wildlife legislation, but this category has fallen into disuse since the Fauna Conservation Ordinance was repealed. The protective status of, and allowable activities within, the four categories of wildlife PA differ:

- National Parks (NPs) do not allow any consumptive use of wild animals. Entry into NPs is restricted to game viewing tourists.
- Ngorongoro Conservation Area (NCA) is a multiple-use area designed to conserve wildlife and permit residence for pastoral Maasai and their livestock. Game viewing by tourists is also permitted. The residents of NCA have not been involved in conservation plans.
- Game Reserves (GRs) prohibit residence of people and livestock. Game viewing, and hunting are permitted under permit from the Director of Wildlife.
- Game Controlled Areas (GCAs) allow local human activities, except for hunting of game animals.

Wildlife living outside the PAs (in public or open lands) is protected under the Wildlife Conservation Act No 12 of 1974. Killing or capture of any animal, bird or reptile is prohibited without a valid permit issued by the Director of Wildlife, except when wildlife has been proved to be endangering human life or property.

3. OWNERSHIP OF WILDLIFE

Wildlife in Tanzania is state owned. The government issues a variety of licences and permits for people to hunt or capture wildlife that allow the state to collect revenue and limit off-take. The state aims to safe-guard natural resources from poachers, while allowing those who possess legally owned firearms to hunt under license (see Tables 1 to 3).

Table 1: List of hunting permits issued under Fauna Conservation Ordinance of 1959

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1. General Game Licence
 2. Minor Game Licence
 3. Bird Licence
 4. Crocodile Hunting Permit
 5. Local Game Licence (issued by District Councils to holders of muzzle loaders)
 6. Elephant Hunting Permit

NB: A hunter can obtain a Certificate of Ownership for durable parts of the animal if he/she wished to retain them for longer periods.

Table 2: List of permits for hunting and capture of wildlife issued under the Wildlife Conservation Act of 1972

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1. Local Hunting Permits (Citizen Resident)
 2. Local Hunting Permit (Non-citizen Resident)
 3. Capture Permits for live birds/ animals
 4. General Hunting Permits (Tourist)
 5. Trophy Export Permit
 6. Special Hunting Permit
 7. Presidential Licence

NB: Certificate of Ownership is issued whenever client wishes to retain any trophies

Table 3: Permits issued by TANAPA and NCAA, under their own legislation

Most gate entry permits are issued at the entry points of each NP or the NCA to tourists and their vehicles

4. LEGAL RIGHTS OF LOCAL COMMUNITIES TO WILDLIFE RESOURCES

Wildlife belongs to the state. By definition, a state is a group of people living in their territory under an elected government. So, wildlife resources are owned by the people operating under collective rules set by their government. The Director of Wildlife is charged by government to ensure that wildlife resources are conserved by limiting the activities of unauthorised persons.

At present, local communities need a permit from the Director of Wildlife to use wildlife resources. They can apply as a group or as individuals (Sections 25, 26, 27 and 28 of the Wildlife Conservation Act). Perhaps the legislation most relevant to community-based conservation relates to the so-called *Authorised Associations*. Under the Wildlife Conservation Act, *the Minister may declare any body of persons, whether corporate or incorporate, or any Ujamaa village to be an authorised association* (Section 26). Furthermore, under the Hunting of Animals Regulations, *a license granted to an authorised association for the hunting of any animal...may be issued free or subject to such fee as the Minister may from time to time determine* (Section 7), and *an authorised association ...may formulate its own hunting and game utilisation regulations* (Section 19). Together with the laws relating to villages (Sandi, 1996), this provides a firm basis for community-based conservation initiatives.

The law also recognises the importance of people who voluntarily report violation of or intention to violate wildlife laws (Section 83). When reports lead to successful arrests of culprits, informers are rewarded with 10% of the value of the trophies recovered.

5. RECOMMENDED APPROACHES FOR SECURING LOCAL COMMUNITIES LEGAL RIGHTS OUTSIDE PROTECTED AREAS

Two pioneer projects around the Selous GR and Serengeti NP have begun to involve local communities in wildlife conservation. Project co-ordinators have recommended that bye-laws should be made to enable local communities to retain direct benefits from the management of wildlife resources. At present, District Councils are annually awarded 25% of the game fees accrued from tourist hunting. This is used for development of the communities living near the hunting areas. In addition District Councils accrue revenue from resident hunting permits sold by the local District Wildlife Office. The recommendations of these projects are very welcome, as Tanzania now recognises that law enforcement and effective conservation can only succeed if it is supported positively by rural communities.

6. CONCLUSION

This paper has briefly outlined the wildlife laws in Tanzania, and the existing relationship between the state and local communities. Government recognises that policy statements are vital to improve community-based conservation of wildlife resources in Tanzania (Ndolanga, 1996). The policy statements that are eventually approved by Government will allow a full revision of the current laws and allow more effective incorporation of community-based conservation.

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7. TRADITIONAL HUNTING IN TANZANIA

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1. INTRODUCTION

Before villagisation, settlement patterns were determined by the availability of cultivable land and relish food (*kitoweo*), such as meat, fish and spices. Village or clan leaders were able to declare a residential area as long as it was far from other settlements. Suitable areas would have fertile woodland or forest, rivers to supply water and fish, and wildlife suitable for hunting.

This paper will show how local communities, who traditionally hunted for the pot, now live side-by-side with protected areas and how they anticipate benefits from different forms of wildlife use. Traditional hunting communities are thankful that the Government of Tanzania now recognises that local people must be involved in the conservation of wildlife and the environment. Indeed, that natural resources must contribute to the economic development of rural people. Previously the management authorities of wildlife and protected areas regarded villagers as a threat to wildlife. People were not taught about the importance of wildlife, instead the Government spent large sums of money in anti poaching schemes for its protected areas. If local people had been involved in conservation, this would not have been necessary.

Traditional hunters are very different from poachers. Traditional hunters use simple weapons such as arrows and spears, nets and pits to protect themselves against dangerous wildlife, and to provide meat for the subsistence of their families and communities. They teach youngsters how to face enemies such as cattle rustlers from other communities. It was the government's denial of the rights and benefits due to traditional hunters that led local people to destroy wildlife. In contrast, poachers are not a traditional or organised community group. They use sophisticated weapons like firearms and wires and select trophy species such as lions, leopard, elephant, hippo and rhino, for commercial gain, rather than subsistence.

2. BENEFITS AND IMPORTANCE OF WILDLIFE TO TRADITIONAL HUNTING COMMUNITIES

Hunting provided great benefits to traditional hunting communities. They tolerated the disadvantages of coexisting with wildlife in return for various benefits. The foremost benefit was meat for the pot. Elephant meat has been the most highly favoured by the local people in southern Tanzania, who have religious restrictions or traditional clan taboos on the meat of other species. Meat was also very important during funeral and wedding ceremonies. Additional benefits included:

- provision of skins and hides. Different animal skins were used in different ways:
 - large animal skins, such as elephant, zebra and hartebeest, were used as beds;
 - skins from animals such as impala, leopard, bushbuck were carefully prepared and used as clothing for hunting, for example hats, belts or shoes;
 - skins from famous animals, such as lion and leopard were used for rituals and awarded to traditional rulers;
 - skins from small animals were finely prepared and converted into hand bags for storing snuff, medicines, and safari foods; and,
 - lion skins and ostrich feathers were used for traditional dances.
- use of some animal parts as medicines or for rituals. For example, warthog teeth were used as medicine for tooth abrasions, and scales of cape pangolin to prevent food production when worn on the waist or leg during passage through an opponent's *shamba*;
- killing a lion or leopard gave a youngster a highly respected reputation that might be rewarded with a bride or some special rank;
- use of items or revenue accrued from hunting in business transactions. For example, wildlife tail brushes could be exchanged for other commodities such as goats and tobacco.

3. CUSTOMARY RESPONSIBILITIES OF TRADITIONAL HUNTERS

The main responsibility of traditional hunters was to provide meat for the community. Several different groups were responsible for hunting in a community, as follows;

- *fundis* used sophisticated weapons like muzzle loaders, spears, bows and arrows;
- youngsters killed small animals using clubs, canes, sticks and so on; and,

- agriculturists set snares alongside their *shambas* with the intention of acquiring wildlife meat while protecting their crops.

Fundis ensure that only wildlife designated by the Government or by the village are hunted. *Fundis* have to select the most suitable method of hunting, for example the type of firearm used, and must avoid endangering wildlife habitats through haphazard use of fire. *Fundis* also have to appreciate the importance of conserving and coexisting with wildlife. Traditional hunters also aimed to conserve wildlife, and were fully aware that over-harvesting could lead to disasters for the community. They implemented their conservation ethics by:

- hunting only to meet the needs of the community, rather than for commercial gain, and using selective traditional hunting methods that minimised disturbance to wildlife populations;
- training young men to use traditional weapons to defend their lives and property;
- enforcing taboos on traditionally protected animals such as rhino, elephant and python;
- providing meat to disabled villagers; and,
- developing skills in poison preparation which is used in hunting and in defence.

Because the Government did not value traditional hunting, hunting became commercial. Wire snares and other easy, large-scale methods of killing animals came into practice.

4. HUNTING TECHNIQUES

Some of the many traditional hunting weapons include:

- **snares**, often made of rope. They were set around *shambas* or along routes leading to *shambas*;
- **pits**, about 1.5-2 m long, and 1-1.5 m wide. These were dug in open spaces within a *shamba* fence and camouflaged with sticks and grass. Trapped animals were confined by the pit walls which sloped inwards and then killed immediately by falling on the sharp *machinga* spear sticking up from the floor;
- **simple weapons**. Clubs, machetes and spears were common and required no skill;
- **nets**. Plaiting nets using ropes extracted from special tree barks called *mtunguku* or *mchopo* was a special skill. *Fundis* could stalk, ambush and consequently trap animals in the set nets;
- **fire**. This was used by youngsters, between August and October, to herd animals from dry grasslands into river ravines bearing green grass, where they were easier to hunt;
- **poisoned arrows**. These were used by *fundis* with special knowledge of trees with poisons. The hunter stalks the prey until it is in range. The animal should be wounded so that it oozes blood, and so leaves a trail while the arrows poison takes effect. The hunter then follows the trail, usually over about 200-300 steps to find the dead animal;
- **muzzle loading guns**. These are used by a single *fundi* and are very similar to modern guns. Muzzle loader bearers instituted several taboos which were associated with customary and witchcraft beliefs. They used local gun powder known as *mangwala*, obtained from hills and mixed with roots of special trees.

6. CUSTOMS AND HABITS

Many southern traditional hunters took wildlife names to indicate their bravery or skill in hunting a particular species of animal. In other cases, people used names like lion and snake to show stability in wars or elephant to imply that their clan was very large. Some examples are given below.

Komba (Galago)	Joseph Komba
Mbawala (Bushbuck)	Juma Mbawala
Tembo (Elephant)	Rupia Tembo
Simba (Lion)	Mayinka Simba
Mbuzi (Klipspringer)	Mpenda Mbuzi
Nyati (Buffalo)	Mhoma Kilo Nyati
Sungura (Hare)	Mangoto Ngoto Sungura

Njiwa (Pigeons)	Mang'onda Njiwa
Nguruwe (Wild pig)	Damiani Nuguruwe
Mbunju (Eland)	Walifa Mbunju
Ndomondo (Serval Cat)	Jiwaka Ndomondo
Mapunda (Zebra)	Senga Milima Mapunda
Nyoka (Snake)	Amina Nyoka
Ngili (Warthog)	Kindemu Ngili

People also respected and worshipped the species of their clan name, and made eating them taboo. For example Rupia Tembo did not eat elephant meat, Mpenda Mbuzi could not eat klipspringer meat, and Mwamakila Nyati could not eat buffalo meat.

Wildlife was often used in habits and customs to honour rulers. During the installation ceremony, a Ngoni ruler was accorded special respect by sitting on a local chair placed on top of wildlife skin, which in turn was placed on top of an elephant grass mat. Furthermore, the ruler was given a shield, a spear and an axe. A lion skin indicated heroism and ability, and the weapons that were presented during the ceremony implied a powerful reign. Wildebeest tail brushes are given to rulers as a sign of their position and is also used to denote local doctors. Heads of traditional dances also use them during their dancing displays.

Wildlife products were also used for special local instruments. A bugle of sable horn, was used to disseminate information about a gathering or meeting. A wooden drum stretched tightly with lion skin was used to call distant communities to gatherings or emergencies.

Hunting custom prevented both the *fundis* and his followers from drinking, cooking, eating or smoking before the hunters finished their prayers. Hunters carried a little flour, beans and maize. The hunter would pray underneath a *mhoro* tree saying *You grandfathers, you grandmothers, keep snakes and/or any other dangerous animals, from harming us. Anything we hunt shall be used in your due respect and as food for your grandchildren. Let small animals pass by, we are interested in big animals only.* Prayers ensured success in hunting selected animals like fat ones, or big males. Tobacco was believed to protect hunters from all animals, even though they slept under trees.

Traditional hunters followed a pattern of shifting cultivation. A village might stay in a place for three or five years, until land became infertile and wildlife started to decline. Then the people moved on. The infertile and dry land was given ample time to rejuvenate, thus becoming suitable for wildlife again.

7. TRADITIONAL HUNTERS AND CURRENT WILDLIFE MANAGEMENT REGULATIONS

Traditional hunters and local communities live in intimate contact with wildlife and its habitats. They believe strongly that wildlife is a gift from God for their survival. *Fundis* regret the growth in illegal trade in wildlife trophies that has been responsible for the decline of certain wildlife species. A single poacher can set about 200 snares in an area of around 5 sq km, which can completely wipe out wildlife and leaves many animals to rot in the wilderness.. Many communities dislike this because it wastes wildlife meat while removing their supply, and all benefits go to a single poacher. This flies in the face of traditional African habits and customs, which is to share whatever is accrued. *Fundis* believe that the Government's intentions to conserve wildlife are good. However, the Government imposed ban on illegal trophy hunting has meant a restriction on hunting for meat for the community. Hunters believe that, if wildlife were hunted only for home consumption, the restrictions that now deny them access to wildlife would not have been necessary.

Some changes to the current wildlife regulations and practices are necessary:

- hunting areas should be supervised by village governments, under directives made by Central Government. For example, with the commencement of the Serengeti Regional Conservation Strategy (SRCS), the new regulations for management of wildlife are good because they involve villages around Serengeti NP;

- local people and hunters should be involved in all discussions regarding wildlife in their areas. The conservators need to increase conservation awareness in local people, so they can contribute both theoretically and practically to conservation;
- both the benefits and costs of wildlife management must be disseminated, especially those which affect rural communities directly. This should be done in a polite and truthful manner that does not bring enmity between local communities and their Government. Without this dissemination, hunters may continue to evolve different techniques that are far more detrimental to wildlife;
- bye-laws must be made which recognise that villagers have been vested with the responsibilities to protect wildlife. In turn, villagers living near protected areas should now lawfully receive direct benefits from the resources that remain their responsibility to protect, as in the past. For example, five pilot villages within the SRCS area, have already been provided with a total of Tsh 362,470, and are supplied with low-priced meat;
- habits of the traditional hunters that are beneficial to both communities and to conservation should be adopted. Conservation must aim to provide employment to communities of hunters living around wildlife areas, as these benefits in turn can be enjoyed by the elders who have coexisted with wildlife for so long.

8. RECOMMENDATIONS FOR LAWFUL BENEFITS TO TRADITIONAL HUNTERS

The following would permit traditional hunting communities to benefit legally from wildlife:

- revision of legislation of existing hunting conditions and legislation. The 14-day expiry period is too short, because most hunters must travel far to find areas with abundant wildlife to hunt. The return trip may take longer than 14 days, and renewing a licence involves additional expense and time;
- villages managing wildlife should have control over authorised hunters working in their area;
- hunters weapons should be inspected, as many of them are too old. Although many hunters possess modern weapons, such as rifles and shotguns, it is hard to obtain ammunition for them. This has led to the illegal manufacture of weapons;
- foreign companies earn a lot of money from wildlife, but poor natives are prevented from using wildlife. Government must enable local people to benefit from managing wildlife;
- the Legislation over hunting of big animals such as elephant and crocodile needs to be revised because local people have not benefitted from such hunting. Licence fees should be increased and benefits made to local communities who suffer damage to life and property;
- individuals or designated bodies should be encouraged to conduct game ranching. Although an expensive undertaking, its success will depend on individual capability.

8. THE VILLAGISATION PROCESS AND ORGANIZATIONAL STRUCTURE OF VILLAGES

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1. TRADITIONAL SETTLEMENT

The villagisation process is rooted in Tanzania's past. Historically, the settlement pattern in Tanzania has varied over time, and from place to place. The majority of rural people once lived in scattered homesteads. However, nucleated settlements, if not actual villages, grew up at certain sites, for example, at a good fishing site, or around a permanent supply of water in an otherwise dry area. In some places, the growth of the extended family or the emergence of a local political personality led to nucleation. When the European explorers and the German Colonialists arrived, there were several villages that functioned as capitals for ruling groups. For instance, the village where the queen resided in Morogoro had nearly 5000 inhabitants.

Villages also grew in defence of a common enemy. For example, the Wazaramo lived in stockaded villages when they were threatened by hostile Wakamba elephant hunters, but returned to living in scattered homesteads once the threat was removed. Furthermore, the extensive trade along many parts of the coast resulted in a number of huge settlements. These coastal settlements were linked to settlements in the interior through well-developed trade routes. The effects of slave trading dispersed people in some places, but in others led to concentrations of population.

All these settlements, whatever their history, developed their own form of government, lead by Chiefs within each different tribe.

2. SETTLEMENT IN THE COLONIAL AND POST-INDEPENDENCE PERIOD

The British Colonialists encouraged Tribal Authorities based on the rule of chiefs. Later in the colonial period supervised settlement began. In 1954 the British began some licensed producer schemes. Settlement was rapidly extended after Independence and absorbed a very large percentage of rural development resources. The Village Settlement Agency was created in 1962 to start pilot settlements to find effective forms of implementing a villagisation programme. During the post-Independence period the number of co-operative farming settlements rapidly increased. Members of existing villages on the coast organised cattle and coconut schemes with the support of local political leaders.

3. POST ARUSHA DECLARATION VILLAGISATION

The Arusha Declaration of February 1967 committed Tanzania to socialism and self-reliance. This policy emphasised rural development in areas where the vast majority of the people lived. In *Socialism and Rural Development*, Mwalimu Nyerere noted that rural socialism was to be based on mutual respect, communal ownership, the sharing of basic goods and the obligation of everyone to work. Success would depend on voluntary villagisation, where people live and work together for the common good. It was hoped that Ujamaa villages would lead to people moving from their scattered homestead plots to live around a common service centre, and that land would be farmed cooperatively, rather than by individual families.

Although aspects of the traditional extended family were to be incorporated in the communities, modern knowledge was also to be applied and the barriers between groups were to be broken down. The first step was for single villages to work communally, then villages could become involved in collective enterprises, such as a school farm. Finally farmers would develop the confidence to devote all their efforts to the community farm.

This plan was underlined by the Five Year Development Plans for 1969-74 and in a special Presidential Circular No 1 of 1969. This circular stressed that Government must turn its attention to the building of Ujamaa villages. Priority in all credit, servicing, and extension services, was to be given to villages at the expense of the individual producer. The circular went on to instruct, in detail, how this was to be organised institutionally, emphasising that no department of TANU and no Ministry of Government was exempt from participating and contributing to the success of this policy.

In 1973, after six years of continuous campaigning, including several large-scale operations to move the population of whole regions into Ujamaa villages, 5556 Ujamaa villages had been officially created. These were not evenly dispersed throughout the regions, and villages varied in type. Moreover, the economic and social conditions of the villages varied widely. In some regions, the majority of the population was already enrolled, while in others, only 1% of the inhabitants were included. Indeed, some were old traditional villages, where some inhabitants cultivated a communal field while retaining their private farms as their main occupation. In contrast, settlements where people had been moved together became more accessible to Government help and services, but had hardly any communal production activities. Incentives to establish the different types of village ranged from the ideological commitment and understanding of the villagers themselves, to different degrees of persuasion and coercion by administrative and political officials, to material rewards in the form of expanded service or direct support from the Government.

Throughout the history of Tanzania many attempts had been made to move people from their separate and scattered farms into villages Both before and after independence, resettlement programmes were part of government policy. The argument has always been that, by living closer together, villagers will be more easily and more fully involved in the development of the national economy and policy. However, never before had non-voluntary resettlement on such a large scale been given first priority in national policy. Villagisation has involved either the regrouping of scattered settlement into nuclear villages or in the more densely populated areas, the demarcation of village boundaries with the minimum of physical relocation and disruption.

4. VILLAGE STRUCTURE AND ORGANISATION

The legal basis for recognising the Ujamaa villages was the village and Ujamaa villages (Registration, Designation and Administration) Act of 1975. Through this Act, the villages were formally incorporated into Government and Party hierarchy. This Act was finally repealed by the Local Government (District Authorities) Act No 7 of 1982. All villages and Ujamaa villages established under the first Act were deemed to have been established under the new, more comprehensive Act of 1982.

According to the Local Government (District Authorities) Act of 1982, a ward within a District Council can be registered as a village after the Registrar of Villages has been satisfied that the area has been settled by not less than 250 households (*kaya*), and that its boundaries can be particularly defined (this stipulation does not apply to the established villages). This observation notwithstanding, the Minister for Local Government may authorise two or more areas to be registered as a single village, provided that those areas will be within the same boundaries of that registered single village. Nevertheless, he may also authorise the registration of an area as a village even if it is settled by less than the prescribed number of households. Every registered village consists of two important governing bodies, the Village Assembly and the Village Council.

4.1. VILLAGE ASSEMBLY AND VILLAGE COUNCIL

The Village Assembly includes all residents of a village over the age of eighteen. The Village Assembly elects the Village Council. Soon after the election of the first Village Council the Registrar furnishes the Village Council with a Certificate of Incorporation, and the Council becomes with perpetual succession and an official seal; capable in law of suing and being sued; of holding and purchasing, or acquiring in any other way, and disposing of, any movable or immovable property. The Village Council is the government of a village. It is composed of between 15 and 25 members including a Chairman of all the *vitongoji* within the village and such other members to be elected by the Village Assembly. At least one quarter of the Council members must be women. The Village Executive Officer is the Secretary to the Council without voting rights.

4.2. ELECTIONS

The Village Chairman is elected by the Village Assembly from among its members and is responsible for convening and presiding over elections for the Village Council. In order to be elected into the Village Council, the person concerned should be a citizen of the United Republic, have attained the age of 21 years, be ordinarily resident within the area of the village, be able to

read and write in Kiswahili or English, be a member of, and sponsored by, a political party registered as such by an Act of Parliament, and have a lawful means of livelihood.

5. FUNCTIONS OF VILLAGE GOVERNMENT BODIES

5.1. THE VILLAGE ASSEMBLY

The Village Assembly is the supreme authority on general policy-making in village affairs. In addition it is responsible for the election and removal of members of the Village Council. The Assembly performs any other functions conferred upon it under any law in relation to village affairs.

5.2. THE VILLAGE COUNCIL

Pursuant to the Local Government (District Authorities) Act of 1982, the Village Council performs the same general functions that are mandatory for any local government authority, as follows:

- maintaining and facilitating the maintenance of peace, order and good government within its area of jurisdiction;
- promoting the social welfare and economic well-being of all persons within its area of jurisdiction; and,
- furthering the social and economic development of its stipulated national policy and plans for both rural and urban development.

The Village Council also takes precautionary measures:

- to suppress crime, maintain peace and good order and to protect public and private property which is lawfully acquired;
- to control and improve agriculture, trade, commerce and industry;
- to further and enhance the health, education, social, cultural and recreational life of the people;
- to relieve poverty and distress, and to assist as well as ameliorate life for the young, the aged and the disabled or infirm; and,
- to develop, mobilise and to apply productive forces for waging a war against poverty, disease, and ignorance.

As an administrative body, the Village Council is the executive organ that performs the daily affairs of a village. In addition to the functions listed above, the Village Council must:

- do everything necessary or expedient for the economic and social development of the village;
- initiate and undertake any task, venture or enterprise designed to ensure the welfare and well-being of the residents of the village;
- plan and co-ordinate the activities of and render assistance and advice to the residents of the village engaged in agriculture, forestry, or any other activity or industry of any kind;
- encourage the residents of the village to undertake and participate in communal enterprises; and,
- participate, by way of partnership or any other way, in economic enterprises with other Village Councils.

The above functions notwithstanding, the Village Council is further empowered to act where necessary, to discharge its functions (Section 147 of Act No 7 of 1982).

The Village Council has the mandate to determine the frequency and venues of its meetings. It is expected to meet at least once a month, and all Council meetings are open to the public. A special meeting is normally convened when the Chairman receives a request signed by at least ten members of the Council. Whenever such a meeting is held, at least half of the members of the Council must attend. Each Council makes its own regulations to meet these requirements. The Village Executive Officer is the Secretary to the Village Council.

6. COMMITTEES OF THE VILLAGE COUNCIL

The Village Council has three committees:

- Standing Committee for Finance, Economic Affairs and Planning;
- Standing Committee for Services and Self-help Activities; and,
- Standing Committee for Security and Defence.

Each Standing Committee is assigned specific tasks, but the Village Council still has all executive powers for all affairs and business of the village, and is ultimately answerable for any decisions made.

6.1. STANDING COMMITTEE FOR FINANCE, ECONOMIC AFFAIRS AND PLANNING:

This Standing Committee is responsible for:

- planning development projects for the village;
- ensuring that essential statistics are available for decision-making;
- allocating land for essential services and activities such as; school, dispensary, residential houses, herding, agriculture, and so on;
- coordinating plans from other committees or from the District or higher authorities;
- preparing the Village Council budget;
- keeping reliable statistics for all activities of the Village Council and ensuring that the Council's revenue is kept in its bank account and properly spent; and,
- looking for sources of revenue for the village.

6.2. STANDING COMMITTEE FOR SOCIAL AND SELF-HELP ACTIVITIES

This Standing Committee is responsible for community welfare, including education, health, culture, water, self-help, and so on.

6.2.1. Education:

The committee ensures that:

- children and adults receive the appropriate education to develop their skills and implement village activities;
- all children acquire primary education and that kindergartens are established for pre-primary school age children;
- adult education includes carpentry, masonry, pottery, sewing, weaving, and so on;
- meetings occur to discuss matters relating to the development of education in the village;
- regional newspapers and films are circulated, and outstanding guests are invited to address the villagers, in co-operation with the District Education Office; and,
- scholarships are available for higher education outside the village.

6.2.2. Health:

The committee ensures:

- all necessary measures are taken to prevent disease;
- surroundings within and outside the villages, are kept clean;
- the village surroundings enhance health;
- enough crops are produced for food to ensure good health; and,
- cleanliness of both body and clothing are encouraged.

6.2.3. Self-help:

The committee is responsible for:

- identifying areas that require self-help activities;
- ensuring that every able-bodied person participates in selected activities;
- ensuring that the activities shall include construction and maintenance of village roads;
- making preparation for laying pipes
- facilitating health activities; and,
- maintaining school buildings.

6.2.4. Works:

The committee is responsible for:

- educating and mobilising the villagers to construct modern houses;
- ensuring the availability of building materials for the villagers;
- building small dams and wells in accordance with the needs and capacity of the village;
- advising the Village Council on loans for house construction and technical advice;
- looking for experts on small-scale industries;

- ensuring that residential houses occupy a good site;
- building houses that comply with sanitary conditions;
- preparing revenue estimates for presentation at the Finance Standing Committee;
- keeping statistics on villagers experienced in masonry, carpentry and other crafts and encouraging them to participate in various works;
- finding out how best to transport goods, through the use of trolleys, donkeys, tractors, lorries, and so on;
- cooperating with neighbouring villages in joint ventures, such as transport; and,
- seeing that roads leading to other villages or other places are passable.

6.3. THE STANDING COMMITTEE FOR DEFENCE AND SECURITY

The Standing Committee for Defence and Security ensures that:

- training provides a well-disciplined militia;
- *sungusungu* are ready and available for defence and security activities;
- every villager, except the old and disabled, is engaged in militia and *sungusungu* activities;
- meetings take place to plan appropriate implementation of defence and security activities;
- *sungusungu* and the militia cooperate with villagers in reporting and recording guests entering and leaving the village;
- cooperation with other committees promotes efficient performance; and,
- estimates are made for committee expenditure.

7. LEGISLATIVE POWERS OF THE VILLAGE COUNCIL

A Village Council performs mandated functions. To function effectively the Village Council makes bye-laws after the approval of the Village Assembly. The procedures for passing bye-laws are:

- the Council proposes a bye-law, which is presented to the Village Assembly for consideration. This involves the whole village in the law-making process;
- the Council records the opinion and representation of the Village Assembly members. This is taken into consideration when the bye-law is re-discussed by the Council;
- the Council may alter or modify their bye-law in compliance with the representation of the Village Assembly or continue to formulate the bye-law without consideration of the Village Assembly;
- when the bye-law is made, the Village Council forwards the bye-laws and the Council minutes, together with all the representations of the Village Assembly, to the District or Urban Council for approval. This ensures the proposed bye-law does not contradict any bye-laws made by the District or Urban Council;
- if the District or Urban Council is satisfied with the proposed bye-law, it approves it and sets a date when it comes into force. This type of bye-law is recognised by the courts of law; and,
- the Village Council has the responsibility to guide and encourage the villagers by way of partnership or any other means, in economic activities such as cash crop and food crop cultivation, pastoralism, fishing, mining and artisanry.

By way of bye-laws, the Village Council regulates cultivation of certain crops and use of any agricultural land to preserve fertility. It also takes steps to prevent soil erosion and protect crops. The Council sets a minimum acreage to be cultivated by each household for both cash and food crops.

8. THE REVENUE OF THE VILLAGE COUNCIL

A Village Council needs a source of revenue to meet its obligations and this is provided for under the Local Authorities Finance Act of 1982. The revenues, funds and resources of a Village Council shall consist of:

- all receipts derived from any trade, industry, works, service or undertaking carried out or owned by the village;
- all money derived from licences, permits, dues, fees, charges for tariffs specified by any by-law made by the Village Council;
- all money from rents collected for renting public houses or buildings which belong to the Village Council;
- all moneys which a Village Council may borrow from lending institutions or any other source, pursuant to its general power of raising money by borrowing;

- all revenue accrued to the Village Council from the Government, the District Council or from any private individual or public institution by way of contributions, grants-in-aid, endowments or any other manner of payment;
- all moneys derived from fines, imposed in respect of contravention of any bye-laws made by or in respect of the Village Council;
- all money payable under the Entertainment Act of 1970 and collected within the boundaries of the village; and,
- all moneys payable under the Hotel Levy Act of 1972 by proprietors of guest houses and collected within the boundaries of the local government concerned.

Village Councils also receive a grant equal to 17% of the development level collected from the residents of the village. This is provided under standard rating rules.

9. THE RELATIONSHIP WITH OTHER BODIES

The Village Council interacts with various organisations while implementing its development activities. Such organisations include the Central Government, parastatals and private sector organisations. Various non-governmental organisations (NGOs) and other donor agencies have always shown keen interest in rural development. NGOs frequently provide both financial and technical support for social and developmental activities. Although donor organisations channel funds directly to District Councils, the final beneficiaries are the villagers. Consequently, the Village Council mobilises village residents who provide labour for self-help as an added input to grant-aided activities.

10. CONCLUSION

The legislation establishing a village in Tanzania provides a very strong mechanism for present and future initiatives in community-based conservation. The established structures and their mandated functions are extensive both in scope and scale. It is hoped that this workshop can formulate recommendations that harness the power of these structures to help people become the custodians and beneficiaries of wildlife.

9. THE EFFECT OF VILLAGISATION AND OTHER POLICIES ON WILDLIFE CONSERVATION IN TANZANIA

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1. INTRODUCTION

The protected areas (PAs) inherited by Tanzania at Independence were classified by conservation status into four categories. Each category allowed different options and policies for management and conservation. Both National Parks (NPs) and Game Reserves (GRs) prohibit human occupation. All consumptive use of land and wildlife is prohibited in NPs, but allowed at certain levels in GRs. Game Controlled Areas (GCAs) allow all types of human activities, except hunting and capturing of wildlife which are only permitted under licence. Ngorongoro Conservation Area (NCA) is a multiple use area combining wildlife conservation with pastoralism by resident Maasai.

The wildlife estate of Tanzania has increased steadily since colonial times, and greatly since Independence. Today, around 6%, 10% and 9% of Tanzania's surface area is gazetted as NPs, GRs, and GCAs, respectively. All NPs and NCA are under the control of the parastatals, Tanzania National Parks (TANAPA) and Ngorongoro Conservation Area Authority (NCAA), respectively. Most GRs are now National Projects controlled locally by a Project Manager who is answerable to the Director of Wildlife, and managed centrally by the Department of Wildlife. The remaining GRs and all GCAs are under regional control. Wildlife also survives in considerable numbers outside the PAs, in open areas. This makes wildlife conservation one of the main forms of land use in the country.

2. POLICIES AFFECTING THE ACQUISITION AND UPGRADING OF PAs

It is important to understand how such large tracts of land have been acquired for wildlife conservation, so that the fate of these areas can be predicted.

2.1. CONTROL OF SLEEPING SICKNESS

Tsetse fly is a vector for sleeping sickness, a disease fatal to both man and cattle. Tsetse flies are found throughout much of Tanzania, particularly in miombo woodland habitat, but are virtually absent in open grassland and short grass plains. From the 1920s, hot spots of sleeping sickness developed throughout the country. A concentration policy was adopted to move people from these woodland areas and resettle them in villages that were clear-cut to reduce tsetse fly infestation. For example, this happened in Ugalla in 1926, in Liwale in 1936, and in Mbulu in 1943. This left large tracts of land unoccupied in miombo woodland, which finally became the basis of PAs such as the Selous GR, Katavi NP, Moyowosi and Kigosi GRs, Ugalla GR.

2.2. VILLAGISATION

The Village and Ujamaa Villages (Registration, Designation and Administration) Act of 1975, and subsequent amendments (Sandi, 1996) brought villagisation to Tanzania. This policy aimed to increase agricultural production and centralise socio-economic services by persuading communities scattered in small settlements to move to Ujamaa villages. In 1988, 27 million people populated the Tanzanian mainland, in 8,000 villages distributed in 20 regions. The 1990/91 labour force survey suggested that 10.9 million out of the 27 million Tanzanians had reached productive age. Of these, 1.7 million people were employed in urban areas and 9.2 million (84%) in rural areas, mostly in the agricultural sector. Agricultural land in Tanzania is distributed among four agro-economic zones, defined by rainfall. Although many Tanzanians live in rural areas, resettlement created large tracts of unoccupied land that were made available for wildlife conservation, enhancing the benefits already brought by the concentration policy (see 2.1).

2.3. DECENTRALISATION

Government administration was decentralised through the Decentralisation of Government Administration (Interim Provisions) Act No 27 of 1972. This gave regions and districts more authority and freedom to decide and act upon important local matters within a national policy framework. Regions and districts were given the mandate to implement local development as well as administering local affairs through Regional Development Councils (RDCs) and District

Development Councils (DDCs), both of which have village representatives. This framework allowed regions and districts to propose the gazettement of PAs (see section 3).

2.4. CENTRAL GOVERNMENT POLICIES TOWARDS WILDLIFE CONSERVATION

Central Government has played a leading role in formulating policies that promote the gazettement of PAs. Central legislation has been enacted and revised to allow gazettement of PAs in an increasing number of categories. Furthermore, new institutions have been established to manage those PAs, and to provide support such as research, training and wildlife utilisation to those PAs. Thus Tanzania now has four functional categories of PA devoted to wildlife conservation (see section 1), and six wildlife authorities, including three central authorities that manage land.

Budget limitations have often prevented government from following up the gazettement of PAs. In these situations, non-governmental organisations (NGOs) have been encouraged to help salvage particular wildlife PAs that were subject to heavy human pressures. NGOs have also encouraged the development of new PAs, for example the Udzungwa Mountains NP.

The Government of Tanzania has also been helped in its policy towards gazetting PAs through ratifying a number of international conventions. The most relevant to PAs is the World Heritage Convention, through which Tanzania boasts a total of four World Heritage sites. Furthermore, the Government is now formalising ratification to accede as a party to the RAMSAR and Biodiversity Conventions, which will have further relevance to gazettement of PAs.

3. RELEASE OF LAND AND ITS SETTING ASIDE FOR PROTECTED AREAS

3.1. THE PROCESS OF GAZETTING PAs

The process of changing the status of public land and open areas to a PA is lengthy and time-consuming. However, it ensures that any proposal is discussed by representatives from the lowest level of the village government, to the highest level of the Cabinet.

Table 1: The steps in gazetting a PA of NP or GR status

Professionals	Governments	Administrators
DGO	Village governments	DDC
RGO		RDC
Wildlife Department		Ministry
Ministry		Cabinet
	Presidential Declaration for GRs Act of Parliament for NPs	

3.2. THE UPGRADING OF GAME CONTROLLED AREAS

At Independence, the wildlife estate in Tanzania constituted 4 NPs, 6 GRs and 56 GCAs. Since 1964, many GCAs have been upgraded to more legally secure categories of PA, that is to NPs or GRs (Table 2). The simplicity of this step is due to the various policies of re-settlement discussed above. The unsettled categories of PA have been established in areas that were formerly occupied by human settlements.

4. WILDLIFE OUTSIDE PROTECTED AREAS

Despite the large area of the country that has been gazetted as PAs, much wildlife still remains outside the PA network, both in open areas and in zoos and ranches.

Table 2: The upgrading of GCAs since 1961 (The sign + indicates upgrading of additional PAs that were not formerly GCAs).

Status of PA	1964	1974	1994
GCAs	56	50	36
GRs	6	8	19 (+1) = 20
NPs	4	8	11 (+1) = 12
Total number	66	66	66 (+2) = 68

4.1. OPEN AREAS

Tanzania has 131 hunting blocks used for tourist hunting. Thirty are in open areas, the remaining 101 are in PAs (the GRs and present GCAs). Residents conduct most of their legal hunting in the remaining open areas (Planning and Assessment for Wildlife Management, 1996).

One of the biggest innovations of the newly emerging wildlife policy is allowing village communities and the private sector to establish utilisation projects within future Wildlife Management Areas (WMAs). This total change in approach and emphasis in wildlife management is essential to conserve the wildlife outside NPs and GRs. Ideally, these efforts should concentrate on important ecosystems and wildlife populations, by ensuring that future management practices address the pressing problems of increasing human populations, poaching, and unsustainable exploitation of the resource. It is hoped that the security of wildlife resources will be improved by establishing buffer zones adjacent to PAs, in which local people are allowed to benefit directly from wildlife resources.

4.2. ZOOS AND RANCHES

Creating zoos and wildlife ranches indirectly reclaims lost wildlife habitat and wildlife populations. Currently, Tanzania has three zoos, two crocodile ranches, and two ostrich farms. With permission from the Director of Wildlife, local communities in the southern region have been allowed to domesticate Helmeted Guineafowl for protein.

5. VILLAGERS LIVING AMONG WILDLIFE

5.1. TRADITIONAL MANAGEMENT SYSTEMS

Indigenous people have valuable knowledge of the distribution and use of local natural resources. Wildlife management can only succeed in the long run if it is practised by those who own or control the land. Traditional management centred on the production of meat and other products within subsistence economies. Harvesting was undertaken through various methods of hunting and trapping. This form of management was strongly influenced by cultural factors and had little impact on the wildlife populations (Songea and Nyanchuwa, 1996).

5.2. COLONIAL WILDLIFE MANAGEMENT AND THE LONDON CONVENTION

German colonialists, followed by the British after the First World War, brought the wildlife legislation and gazettement of PAs. After the signing the London Convention in 1933, wildlife and protected area legislation was further promoted, while traditional wildlife utilisation and community involvement was increasingly ignored. This trend continued after Independence in 1961.

5.3. REGIONAL DEVELOPMENT PROGRAMMES IN THE 1970-80s

After Independence, regional development programmes focused on areas close to large towns, for both political and logistic reasons. Remote areas fared poorly. Direct benefits accruing from the PAs, in the form of tourism or hunting revenues, improved the national economy, but provided little benefit for local communities. The indirect benefits provided by the PAs, such as the conservation of water catchments and genetic resources could not be fully appreciated by local communities.

The people living nearest to the PAs are conservationists by tradition, and have ensured the survival of the wildlife now in the PAs. However, the combination of both colonial and post-Independence policies have made them the poorest people in the country. Furthermore, they have received the least attention from government or from international development agencies.

6. RECOMMENDATIONS

It is strongly recommended that local communities should accrue direct tangible benefits from the wildlife in PAs and among which they live. People cannot be expected to support the conservation and establishment of PAs unless they understand why PAs have been established and how PAs are relevant to their lives. Direct benefits will allow the communities to develop, and promote positive attitudes towards wildlife conservation and better interaction between wildlife authority personnel and rural people. In turn, future land-use patterns will stabilise, helping to secure the future of the wildlife resource in Tanzania.

Rural communities have the best chance of reversing the present illegal, and often unsustainable, utilisation of wildlife resources within PAs, into legitimate and controlled utilisation. Direct benefits can be provided through a variety of different approaches, including the following:

- revenue from tourism and hunting can be channelled to local development projects;
- local people can control the use of wildlife in buffer zones surrounding PAs; and,
- maximising use of the PAs by allowing appropriate activities, such as beekeeping and fishing, that are separated in time and space, and do not interfere with the principle uses.

Tanzania's natural resources are being depleted at an alarming rate. It is imperative that such initiatives be introduced within a framework of well-formulated policies that balance development with conservation. This can be achieved by ensuring that all community-based activities proposed for the core zone are carried out only on the basis of a management plan. Furthermore, all activities outside PAs must be carried out in the context of a land-use plan.

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10. COOPERATIVE LAW AND WILDLIFE RESOURCES

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1. INTRODUCTION

This paper outlines some major areas where cooperative law may assist development of wildlife resources. The paper is divided into seven sections:

- definition;
- the state and its cooperative law;
- the role of formal cooperatives in managing land;
- the legal requirements for cooperation in managing land in rural areas, primarily in villages;
- the role of cooperatives in harvesting and managing natural resources;
- the problems encountered by cooperatives in managing natural resources; and,
- recommendations for future approaches to the cooperative management of land and natural resources through community-based conservation.

2. DEFINITION

Most cooperative societies are economic ventures. A Cooperative Society is defined as an association of persons who:

- have voluntarily formed a democratic organisation to achieve a common goal;
- contribute equally to the capital required for such an organisation; and,
- accept the risks and the benefits of the undertaking in which they actively participate.

3. THE STATE AND ITS COOPERATIVE LAW

Even though a Cooperative Society is a non-governmental organisation, the state has been regulating cooperative operations through appropriate laws. In Tanzania, the first legislation for cooperatives was enacted in 1932 and revised in 1955, under the colonial government. After Independence a Cooperative Ordinance was enacted in 1963, and this was followed by new Acts in 1968, 1982 and 1991. The Cooperative Societies Act of 1991 has achieved most for the operations and administration of Cooperative Societies. It has incorporated all the six international Cooperative Principles that were endorsed by the International Cooperative Alliance in 1966. These principles are highlighted in Part vi Section 22 of the Act:

- membership of a cooperative society is open and voluntary to all those who can make use of its services;
- the society is controlled democratically, and each member or delegate has one vote in their various meetings which must be properly convened;
- shared capital only receives a strictly limited, if any, rate of interest;
- distribution of economic returns arising from operations of the cooperative society is fair and equitable;
- provision is made for the education of members, officers and employees of societies in the principles, practices and techniques of cooperation; and,
- cooperative organisations actively cooperate at local, national and international levels.

The Government appoints a Registrar of Cooperative Societies. This official has the responsibility of seeing that legislation is upheld and that legal action is taken against all those who break the law. The law provides for formation, constitution and registration of cooperative societies, and for any related matters. For example, the Cooperative Societies Act of 1991 stipulates that:

- *the state shall protect the Cooperative Societies by offering support, guidance and advice (Section 5);*
- *the property of the society shall be deemed public property, its employees shall be deemed public servants and the paper of the society, its records and seal shall not be removed from the premises of the society except in accordance with the provisions of this Act (Section 6);*
- *the Minister shall take such measures as he deems necessary for the encouragement generally of cooperative development for economic, social and cultural purposes and human advancement on the basis of self-help and in particular, but without limiting the generality of the foregoing for encouragement of the Organisation of Cooperative Societies (Section 7);*

- two or more rural cooperative societies may form a joint venture for efficient operation of a business or economic enterprise (Section 19); and,
- mandate is given for cooperatives of any type to be formed (Section 21).

In addition, the Act:

- enumerates the responsibilities of the Minister (Section 8);
- provides for appointment of the Registrar and Deputy Registrar by the President (Section 11);
- highlights the functions of the Registrar (Section 12). These include:
 - registering, promoting, inspecting and advising cooperative societies in accordance with the provisions of this Act;
 - advising the Minister on matters affecting cooperative societies, and in particular on any assistance, financial or otherwise, which cooperative societies require;
 - encouraging the establishment of cooperative societies in all sectors of the economy and helping them to increase their efficiency;
 - providing services to help form, organise, and operate societies and to give advice on cooperative management to all kinds of societies registered under this Act;
 - performing various functions for the benefit of societies as directed by the Minister; and,
 - promoting or facilitating the education and training of members and staff of cooperative societies.

4. ROLE OF FORMAL COOPERATIVES IN MANAGING LAND

Like any other formal organisation legally constituted, a registered cooperative society may have an opportunity to manage land. In so doing it will have to:

- obtain the title-deed for the land and mortgage it to acquire loans for developing the land;
- involve or employ competent personnel to manage the land;
- mobilise and educate its members on better cooperative use of the land to increase the profit for its members;
- appoint or elect a committee or sub-committees to supervise conservation of the land; and,
- lay down bye-laws to govern protection and management of the land.

5. LEGAL REQUIREMENTS FOR RURAL COOPERATIVES TO MANAGE LAND

Cooperatives that manage land in rural areas must be legally registered and constituted. During formation and registration, the society must state its objectives clearly in its bye-laws. Each society must prepare a feasibility study to assess its economic viability, so that only economically viable societies are registered. In addition:

- the societies' operational area must be well defined and not interfere with other societies;
- members must share a common bond and economic problem;
- members should have appropriate qualifications, according to the bye-laws, to manage land;
- one society may be formed for the purpose of owning and managing the land;
- two or more rural cooperative societies may join to manage the land, and a joint committee may be formed to represent each member; and,
- the General Meeting of all members or delegates shall have supreme power in decision-making, but day-to-day management supervision should be given democratically to the Management Committee. This body appoints competent persons to undertake managerial functions.

6. ROLE OF COOPERATIVES IN HARVESTING AND MANAGING NATURAL RESOURCES

The role a cooperative plays in harvesting and managing natural resources will vary according to the resource. In all cases bye-laws should force members to sell products through the society. Those disobeying the bye-laws should be penalised.

6.1. HONEY

Members may individually or jointly own beehives and other equipment to obtain honey, wax and other bee-products. They may sell these through cooperative societies. Non-members may also sell honey through the cooperative, but the society may charge a levy for its services. A society

may sell the honey products in raw form or process and sell them at a higher price. The only prominent beekeepers' cooperative, the Tabora Beekeepers Cooperative Society, with Registration No. 1036, is performing a commendable service to its members.

6.2. FISH

Cooperatives are important in the fish trade. Around 19 fishing cooperatives are scattered across the country. In most cases members pool their equipment, and fish and sell their catch together.

6.3. TIMBER

A few cooperatives are registered to exploit timber and its products. Normally the wood or timber is cut and marketed jointly.

6.4. WILDLIFE

In Dodoma Municipality the African Tanzania Birds and Animals Cooperative Society (Registration No 1540) exports live animals and birds. Members may jointly own facilities, or catch animals and birds individually, but sell them together.

6.5. OTHERS

Two cooperative societies deal in exploiting minerals. A society may own and manage a piece of land, and obtain permits and licences to exploit minerals on behalf of its members. All minerals are sold through the society.

7. PROBLEMS ENCOUNTERED BY COOPERATIVES IN MANAGING NATURAL RESOURCES

A number of problems have prevented cooperatives from becoming more involved and successful in harvesting natural resources:

- cooperatives lack knowledge of natural resource exploitation. In most cases cooperatives receive some assistance from government officials on an *ad hoc* basis. However, the Government still retains a monopoly in employing such experts;
- it is difficult to obtain permits and trading licences from the appropriate authorities due to tight bureaucracy;
- cooperatives have very limited capital for initial investment, so they begin on a weak footing;
- natural resources are typically unpredictable, so plans and budgets for their exploitation often fail;
- market information is not readily available;
- some forms of natural resource use are restricted to particular groups of people, such as tourists. Hence, so far, cooperatives have had no access to trophy hunting or community-based conservation;
- cooperatives face cut-throat competition from private sector organisations, and are consequently forced out of the market; and,
- cooperatives have no appropriate equipment to locate proper resources.

8. RECOMMENDATIONS FOR FUTURE APPROACHES TO COOPERATIVE MANAGEMENT OF LAND AND NATURAL RESOURCES

The following recommendations endeavour to eliminate the problems as described in section 7:

- education and training of cooperative members will provide the necessary technical know-how;
- relevant authorities should make it easier for cooperatives to obtain permits and licences;
- financial institutions should provide credit to cooperatives that deal in natural resources;
- experts in the use of natural resources and wildlife should assist cooperatives in locating productive areas;
- the Ministry of Trade and Industries and its companies should give cooperatives access to market information whenever possible; and,
- restrictions in other areas of the natural resources industry should be lifted so that cooperatives may exploit them.

PART 3

OVERVIEW OF COMMUNITY-BASED CONSERVATION INITIATIVES IN TANZANIA

11. APPROACHES TO COMMUNITY-BASED CONSERVATION IN THE NGORONGORO CONSERVATION AREA

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1. INTRODUCTION

The Ngorongoro Conservation Area (NCA) covers approximately 8292 sq km, and is one of the most important conservation areas in Tanzania. Its short grass plains support the seasonal Serengeti migration of 1.7 million wildebeest, 260,000 zebra and 470,000 gazelles. The highland forests form a vital water catchment for neighbouring agricultural communities. The Ngorongoro Crater itself is a unique natural phenomenon of world-wide renown, harbouring a diversity of wildlife, including one of Tanzania's last remaining populations of black rhinoceros. The NCA also holds fossil remains dating back to the earliest period of human evolution. Accordingly NCA has been declared a World Heritage Site and is part of a Biosphere Reserve. It has become one of the world's top destinations for nature tourism.

The NCA is also home to approximately 26,000 resident Maasai pastoralists and 285,000 head of livestock (Figures 1 and 2). Pastoralism has been practiced in the area for at least 2000 years, while the Maasai have lived in the NCA for two centuries. Since the NCA was established in 1959, Maasai rights to pursue their socio-economic development within the NCA have been recognised. NCA is the only protected area (PA) in East Africa that has been established for multiple land-use promoting the dual goals of conservation and development.

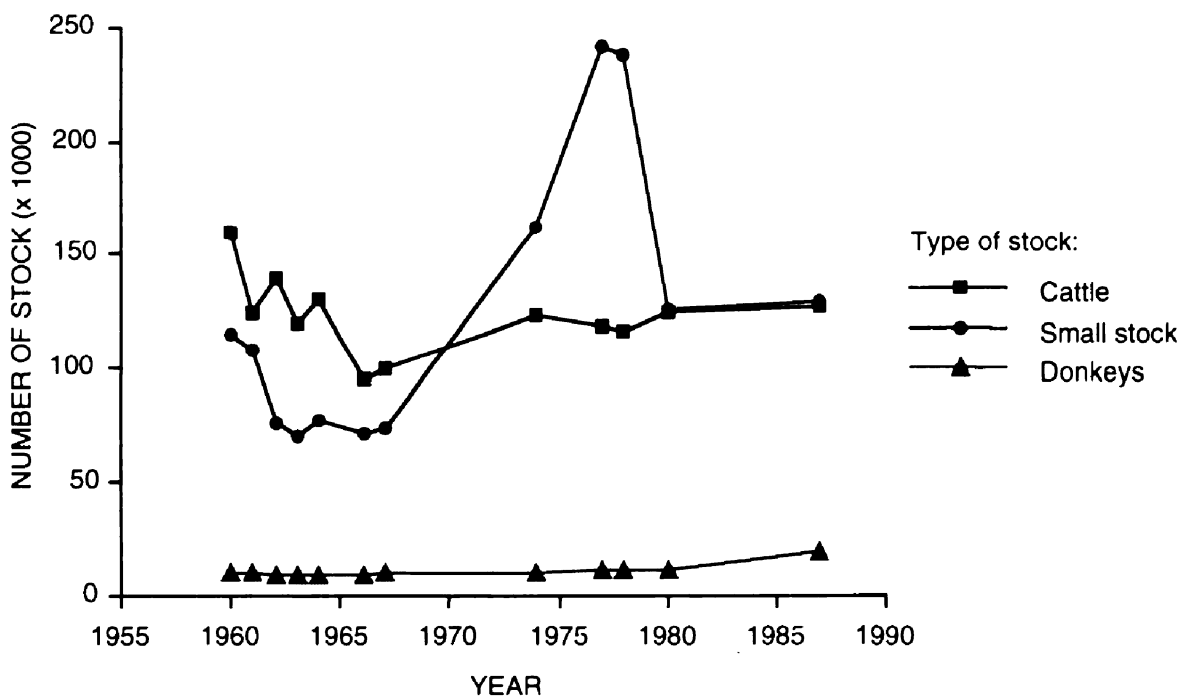


Figure 1: Changes in numbers of cattle small stock and donkeys in NCA

2. BACKGROUND TO COMMUNITY-BASED CONSERVATION IN NCA

Community-based conservation is not new in NCA. The Maasai have lived in the NCA throughout its evolution into a NP. Their rights were not affected by either the Game Preservation Ordinance of 1921 or the National Parks Ordinance of 1966. The first ordinance declared the NCA a closed Game Reserve and prohibited all hunting. The second ordinance eventually led to the declaration of the Serengeti as a NP in 1948. The original Serengeti National Park included the Serengeti Plains and the Ngorongoro Highlands within the original boundaries, but allowed human habitation.

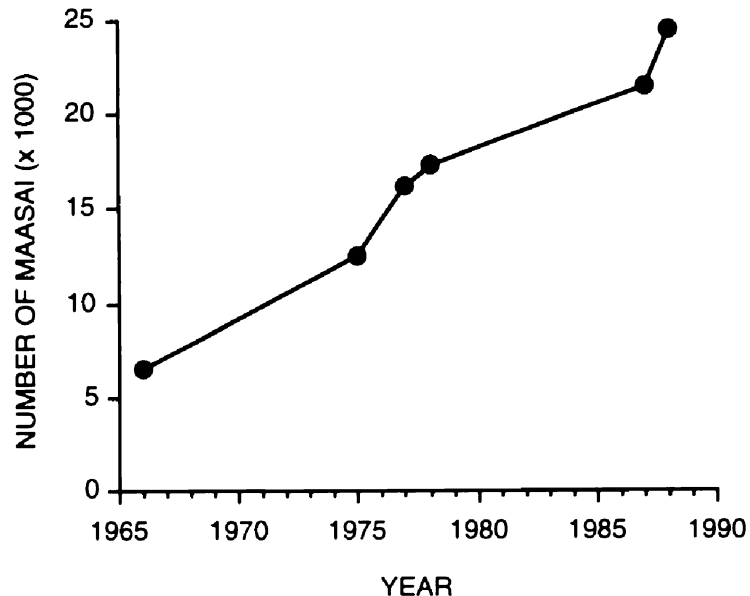


Figure 2: Change in the number of Maasai resident in NCA

Subsequently, the development needs of the pastoralists were thought to conflict with conservation interests. Consequently, the Serengeti NP boundaries and the provisions of the National Parks Ordinance were changed to remove the Maasai from the Western and Eastern Serengeti. Furthermore, the Ngorongoro Highlands were excised from the NP, to form an independent multiple-use land unit. The NCA Ordinance of 1959 recognised the intrinsic value of the NCA for the resident Maasai. Its aim was to provide a framework for harmonious co-existence between people and wildlife, and an Authority (NCAA) was established to oversee activities within the NCA. The NCAA was responsible for the:

- conservation and development of the natural resources of the area, including all natural communities of flora and fauna, with particular regard to endangered species and their habitats;
- protection of the Northern Highland Forest Reserve to ensure permanent water flow and to effectively control erosion;
- promotion of game-viewing tourism by providing and creating favourable conditions for the facilities necessary for visitor use; and,
- improvement of the living conditions of the resident pastoralists, by providing the necessary assistance to promote social and economic development.

Hence, community-based conservation has always been part of the mandate and day-to-day activities of NCAA. However, the approaches to community-based conservation in NCA, in which people reside, differ from those now practiced in other areas of Tanzania, where people reside around the periphery of PAs.

3. COMMUNITY-BASED CONSERVATION

3.1. MEANING AND OBJECTIVES

Community-based conservation is becoming increasingly important in natural resource management. However, its success will depend on a clear understanding of the failure of the former traditional approach that protected natural resources, but at a cost to local people.

Many previous wildlife conservation policies have failed. Most African states have allocated significant portions of land to PAs, but have restricted resource use by rural communities. The use of resources and the revenue derived from them have been increasingly controlled by Central Governments. The institutional framework is inefficient and uncoordinated: wildlife management and revenue accrued from the wildlife sector are controlled by different Government departments. The traditional local authorities that once regulated and controlled these resources, and who are supposed to be the beneficiaries of these resources, have been disenfranchised. This has alienated many rural communities from the idea of wildlife conservation. Community-based conservation may alleviate

these problems by involving rural communities in conservation efforts for their own benefit so creating a feeling of ownership and responsibility for the resources. The future ownership of wildlife and PAs will be crucial in determining their survival.

4. APPROACHES TO COMMUNITY-BASED CONSERVATION IN NCA

4.1. INITIAL ATTEMPTS

Community-based conservation must embrace the socio-economic and cultural values of the community to be acceptable and beneficial to them. Before any community-based conservation programme is implemented, there is a need to conduct thorough socio-economic surveys in order to understand community *needs, priorities* and *attitudes*. In NCA, the values of the resident pastoralists have helped to shape community-based conservation. Traditionally, the Maasai are pastoralists. Pastoralists are defined as people whose livestock provides 50% or more of their household gross revenue or of the total value of their marketed production plus the estimated value of subsistence production consumed within the household. Equally, pastoralists are those of household food energy consumption consists of more than 15% of milk or milk products. Because of the pastoral lifestyle of the resident Maasai, NCAA had the responsibility for improving the livestock sector by providing facilities such as dips, crushes and veterinary medicine. A special department, known as Range Management, was established within NCAA to oversee this. Funds were accrued from tourism and other income generating activities such as the Ngorongoro Protection Fund. During the 1960's, NCAA did not face problems from subsistence poaching, since the Maasai do not eat wild meat.

One major omission in this effort to improve livestock was the failure to recognise the importance of the agricultural societies living around NCA. As a result, encroachment by pastoral communities, especially on the southern boundary of the area, escalated. Furthermore, the resident Maasai became increasingly confused about conservation objectives by inconsistent policies (see section 2) and started small-scale cultivation to supplement livestock products. The NCA authorities could not understand that the Maasai might change their patterns of life to encompass more modern ways and banned small-scale cultivation in 1975.

Apart from this, Africa had little experience of integrating community interests with conservation. NCAA thought that just supporting the livestock sector would achieve the objectives set out by the Ordinance. However, institutional arrangements and activities were uncoordinated, and the needs of the resident Maasai community were not identified. There was no recognition of any genuine local community structures, nor any empowerment by NCAA that could promote collective interests or discharge collective obligations. The staff employed by NCAA at that time were experienced only in protective conservation, and included a few veterinary staff. Furthermore, the lack of clear objectives on the part of NCAA to integrate development and conservation, was greatly exacerbated by the start of the decline of the livestock sector (Figure 1). This was partly caused by inadequate veterinary services due to financial constraints caused by the decline in the tourism sector. NCAA failed to cope with this situation and, because the numbers of Maasai were also increasing (Figure 2), this led to declining human: livestock ratios, and the abandonment of prime grazing lands.

Since these problems were identified, NCAA has been setting money aside for appropriate solutions. Food security has been improved by selling grain at a subsidised rate. Veterinary services have been improved, water development projects have been rehabilitated, and security has been improved, although it still remains a problem. The relationship between NCAA and the residents has been improving and poaching has declined, because most of the poachers are reported by the residents. Expenditure on resident development by the NCAA has been constant between 1991/92 and 1993/4 (Figure 3). This expenditure does not include the 25% submitted to the District Authority as directed by the Government.

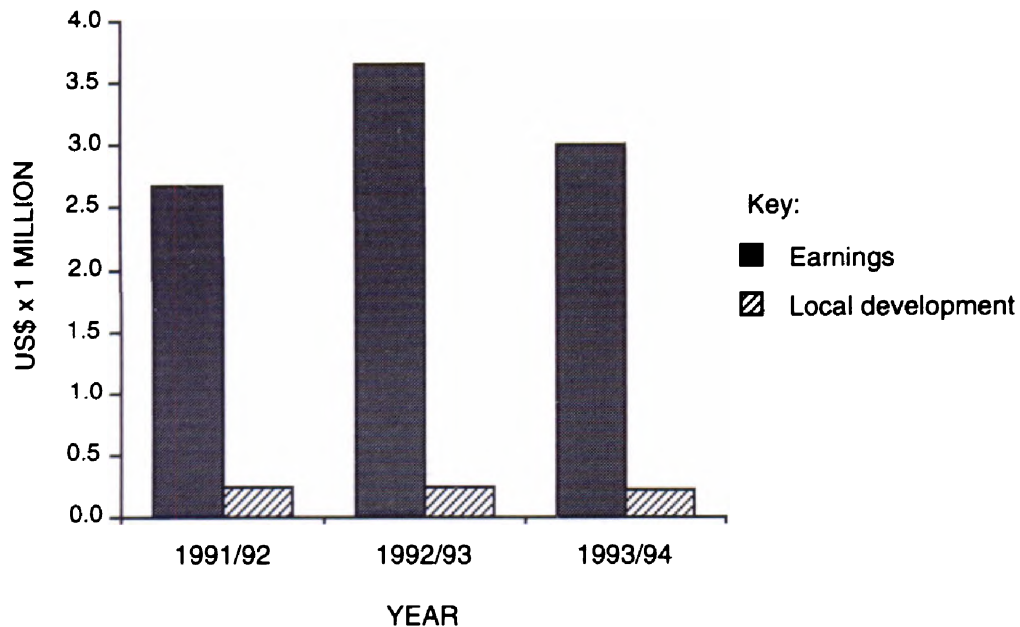


Figure 3: The total earnings of the NCAA (cross-hatched columns) and the expenditure for local development (lines) for the years 1991 to 1994, in US\$.

4.2. NEED FOR CHANGE: A CHALLENGE

One of the biggest challenges in community-based conservation is meeting the costs of implementation, which sometimes is only managed with assistance from donor organisations.

4.2.1. Community needs: community needs are infinite, and no community-based conservation package can fulfil all the needs of any society. The best approach is to motivate the community by giving it a crucial role in decision-making. The decision makers **should not** give too much hope to local communities. It is very dangerous to promise things that are beyond the control or ability of the resource itself to provide sustainably. This will lead to problems that are bigger than the ones currently being faced.

Within NCA, community needs include health services, schools, veterinary services, water, roads and other social amenities. Health services and schools should be provided by the District Authority, but the District Council rarely has sufficient funds to provide these services and the NCAA is often asked to help provide these services. There is no formal system of consultation between the two bodies. This lack of communication and collaboration has led to confusion, tension and inefficiency in the process of development.

4.2.2. Community Priorities: to plan and implement a realistic community-based conservation package, goals must be identified that can be met by available resources. Local institutions must be modified to increase efficiency on the community side of the project.

In NCA, the first step in developing community-based conservation was to improve communication between NCAA and the residents by establishing a liaison body. To this end the Extension Unit was set up in 1987 under the Range Management Department. However, according to the *ad hoc* Ministerial Commission on Ngorongoro in 1990, this unit was too small to handle the problems of the residents. Accordingly, the Commission recommended that community-based activities be considerably strengthened. Hence, a fully-fledged Community Development Department has been established, together with new sections for Food Security, Resident Projects, and including the old sections of Range Management, Livestock Development and Extension. The recommended structure was made in the full realisation of community priorities by the *ad hoc* Commission. The priorities were to ensure:

- **food security:** people wanted to cultivate within NCA to compensate for the decline in livestock and livestock products;

- **healthy livestock:** livestock provide food, but are also sold for cash that is used to buy grain. People were concerned about the heavy toll taken by disease, and the scarcity and high prices of veterinary drugs. Particular concern was shown over the erratic supply and high cost of acaricide, the lack of functioning dips and deteriorating pastures in the highlands;
- **water development:** the water system serving both domestic and livestock needed to be improved and expanded; and,
- **security of cattle:** the traditional land use patterns had been disrupted in some areas by cattle raiding.

4.2.3. Functions of the Community Development Department: each section within the Community Development Department has different responsibilities.

The Livestock Development section is responsible for:

- extension services;
- the design and coordination of education services for resident pastoralists in animal husbandry, breeding, health and nutrition;
- the rehabilitation of livestock marketing systems;
- the promotion of the development of a dairy industry; and,
- the coordination of a tsetse fly eradication programme.

The Health Services section is responsible for:

- the coordination of activities of the veterinary field officers;
- the establishment of veterinary clinics/centres in the field;
- the provision of preventive and curative livestock health services;
- ensuring a regular supply of livestock drugs at affordable prices;
- the provision of veterinary and laboratory equipment;
- construction/rehabilitation and maintenance of cattle dips, crushes, sores, and outstations;
- epidemiological studies of livestock disease;
- institution of animal disease control programmes; and,
- meat inspection services.

The Resident Liaison section is responsible for:

- Resident Relations including:
 - establishment of good communication between NCAA and the resident Maasai;
 - strengthening social welfare programmes with, for example, health and education facilities, in collaboration with the District Council;
 - educating residents in the responsibilities of NCAA; and,
 - promoting employment of residents.
- Resident Projects including:
 - identifying, planning and guiding income generating projects for the resident communities; and,
 - overseeing the current leather craft project.
- Resident Conservation, including:
 - establishing communication channels and structures to enhance the participation of the residents in the conservation efforts of NCAA; and,
 - establishing community-based conservation programmes incorporating environmental education.

The responsibilities of the Food Security section include:

- continuous monitoring of the food and nutrition situation;
- launching food for work schemes and restocking programmes;
- operating grain stores at three posts (Endulen, Alaililai and Oibalbal); and,
- formulating strategies for population stabilisation within local communities.

The Community Development Department works closely with the Department of Management of Natural Resources. A security sub-section has been established in this department to tackle the

security problem for pastoralists. These departments, along with the Department of Tourism, form the core departments of NCAA. Other supporting departments include Finance and Projects, Works and Transport, and Personnel and Administration. These departments are coordinated by the Planning and Research Unit that is under the Conservator's Office and responsible for balancing conservation and development in preparing management plans for the area.

On top of this structure, a joint Management/Resident Representative Council has been established. This council discusses and approves the community development budget each year before it is sent to the Board of Directors for approval. This council is composed of:

- four Ward Councillors from each of the four wards of the area;
- six pastoralists selected by the pastoralists;
- seven members of Management (Head of the six departments of NCAA, plus the Conservator).

The Council has just been established, so it is premature to evaluate its success. Experience in NCA shows that the process of community-based conservation requires additional costs in terms of setting appropriate structures and manpower.

4.2.4. Community Attitudes: community attitudes are important in the success of community-based conservation programmes. Local communities have developed the idea that PAs are Government law enforcement agencies with no interest in their socio-economic problems. This attitude must change to achieve community-based conservation.

4.3. DEFINITION OF OWNERSHIP: A LIMITATION TO FORMULATING COMMUNITY-BASED CONSERVATION STRATEGIES

The legislation governing NCA gives land ownership to the Conservator of Ngorongoro. The residents feel that this legislation denies them *access and rights* to land as stipulated in the Ujamaa Villages Registration Act of 1975, and the Local Government Act (District Authorities) of 1982. The residents feel that they possess the same rights as any other Tanzanian, and that their need should be recognised, given their considerable insecurity, tension and doubt about the future. The residents will regard any strategies adopted by NCAA for their benefit as temporary measures to serve until they have security to land.

5. CONCLUSION AND RECOMMENDATIONS

Since its establishment, community-based conservation in the NCA has taken various forms. Lack of experience has meant that a lot of problems have cropped up in the process of implementation. What experience NCAA has suggests the following recommendations:

- **policies** on community-based conservation must be **clear and consistent** to avoid confusion among the different interest groups;
- **institutions** taking part in community-based conservation in any particular area must be **coordinated**;
- **training** in community-based conservation must be **improved**;
- the **culture** and **socio-economics** of the target groups must be **studied** before beginning community-based conservation programmes; and,
- **criteria** for **designing** and **implementing** community-based conservation programmes in various areas must be established.

12. TANZANIA NATIONAL PARKS COMMUNITY CONSERVATION SERVICE

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1. INTRODUCTION

The Tanzania National Parks (TANAPA) Community Conservation Service (CCS) is a park outreach programme to neighbouring communities. The CCS does extension work and conducts a benefit-sharing programme. Since the TANAPA pilot project began at Loliondo in 1988, the CCS has received technical and material support as part of African Wildlife Foundations (AWF) *Neighbours as Partners* Programme. However, the CCS has been well-institutionalised as an essential part of TANAPA's management strategy (as documented in an independent evaluation). The CCS now receives support from a number of sources including AWF, Frankfurt Zoological Society (FZS), the Overseas Development Administration (ODA) and the private sector.

2. THEMES

2.1. LAND USE

No legislation exists in Tanzania that would allow TANAPA to establish or control buffer zones, so it is restricted to providing advice and services in these areas. The TANAPA CCS decided that it would be unable to make a significant impact on land use decisions, given the scope of the other forces at work. Therefore the work of TANAPA CCS relevant to land use is limited to the following activities:

- compiling district and village profiles as a tracking mechanism;
- participating in District Development Committees (DDCs) and representing park concerns where large land use changes are proposed;
- attempting to participate in and advise on land use changes that are proposed; and,
- attempting to participate in and advise on land use decision making exercises whether at village or district level (eg, links with the LAMP project in Babati).

2.2. ESTABLISHING AND MANAGING WILDLIFE MANAGEMENT AREAS

The TANAPA CCS wishes to advise and assist in planning WMAs and linking proposed WMAs to a National Park (NP). For example, a WMA near a NP might create a walking and camping area near a park boundary, with a hunting area further away. The NP management might allow special access into the NP from the WMA to make it more attractive to customers. Therefore, TANAPA would be linked to, but not directly involved in, the management of WMAs.

2.3. PARTNERSHIP AND COMMUNITY CONSERVATION

The TANAPA CCS programme specialises in extension work and has developed a number of tools and strategies for working with communities. These include:

- community conservation coordinating committees;
- community conservation wardens;
- community conservation coordinators;
- introductory presentations to District Officials;
- district letters of introduction;
- introductions to village officials;
- visit and revisit;
- district profiles forms;
- village profiles forms;
- meetings with village governments;
- public meetings;
- park visits by local people;
- community surveys;
- community leaders' workshops; and,
- participation in DDCs.

2.3.1. Building Partnerships and Trust: TANAPA follows normal protocol beginning at the district level. Villages are visited consistently to demonstrate that the new efforts of the NP are long-term. The first objective is to begin communication and address outstanding issues. Once a good

relationship exists, the park introduces the Support for Community Initiated Projects (SCIP) Programme (see 2.4.4) and begins sharing benefits with the village.

2.3.2. Structures/Communities: TANAPA CCS works mainly through local government. The new office of village executive officers has great potential for collaboration. TANAPA will assist a village with a village office but not a party branch office. TANAPA has worked to a limited extent with traditional leaders among the Maasai and the Meru and with Maasai NGOs. The latter has been difficult due to the factions within the Maasai community.

2.3.3. Structures/Park: the CCS is a regular department overseen by a park warden. Each park has a Community Conservation Warden (CCW) who is part of the management team and answers to the Chief Park Warden. This structural integration is essential for coordinating community conservation activities with other areas of park management such as tourism and anti-poaching. The CCWs are backstopped and supported by the CCS Unit at TANAPA Headquarters. The role of the Headquarters Unit includes:

- providing advice and supervisory visits to CCWs;
- organising training, workshops and steering committee meetings (see below);
- providing community conservation input to the TANAPA HQ Management Team;
- working with the Planning Unit and other units;
- tracking extension and SCIP budgets;
- arranging for technical assistance for SCIP projects; and,
- liaison with donors.

The steering committee, known as the Community Conservation Coordinating Committee (C4) has been extremely successful in setting community conservation policy and developing a consistent approach to community conservation, despite the variety of stakeholders, donors and projects involved. The C4 meets quarterly and is chaired by the Director General.

2.3.4. Manpower: manpower has been the limiting factor to the TANAPA programme. CCS aims to make any expansion in manpower sustainable and has trained existing wardens in community development, rather than hiring experts from outside the service. However, some projects require specialist supervision, for example those involving water, construction and livestock. In house training for such specialist areas would be unsustainable. Therefore the CCS has formed relationships with a few key NGOs and private consultants to provide advice and even supervision of projects.

2.3.5. Training: CCW's few opportunities for training arise on-the-job and through workshops. The TANAPA CCS has had some opportunity to take courses in Kenya, but these are too expensive due to overnight allowances. The College of African Wildlife Management at Mweka has developed very little real expertise to date in community conservation.

2.4. RELATIONSHIP BETWEEN THE LOCAL COMMUNITY AND WILDLIFE RESOURCES THROUGH BENEFIT SHARING

The CCS, as an arm of TANAPA, does not promote use of wildlife within or outside NPs. However, giving local people rights to manage and use wildlife sustainably outside NPs can reduce pressure on NPs. TANAPA can provide communities with benefits at various costs:

- **No cost benefits:**
 - retraining of rangers to reduce harassment to local people;
 - the granting of permits for village vehicles to pass through their local NP; and,
 - allowing access to cultural sites.
- **Recurrent cost benefits:**
 - sharing of schools and dispensaries;
 - provision of transport; and,
 - posting of rangers to assist in crop protection; and so on.
- **Development cost benefits:**
 - planning and building rangers posts;
 - creating roads and water lines to share with villages;
 - siting hotels, campsites and so on to provide rent or employment.

2.4.1. Direct benefit sharing: TANAPA has its own direct benefit sharing (SCIP) programme. Each NP is allocated several million shillings a year to assist communities in completing their own initiatives. SCIP tools created by the C4 include:

- SCIP Fund;
- SCIP Guidelines;
- SCIP Forms;
- Park SCIP; and,
- SCIP Technical Assistance Partnerships.

This small programme can not compensate for wildlife damage, or serve as a sufficient incentive to conserve wildlife. Rather, it allows TANAPA to contribute sustainably to the development of the communities whose cooperation is essential for the NP.

2.4.2. Income generation: in TANAPA's experience this sort of assistance requires the greatest sophistication from both TANAPA staff and the village. Cooperative ventures have not been very successful. Private ventures often equate to elites monopolising the resources. Serengeti NP is currently helping one of our most experienced villages to generate income from the tourists entering Serengeti via Lake Natron by developing a campsite. TANAPA's experience in income generation is limited and consequently TANAPA is shy of entering into such ventures.

Finally, TANAPA opposes proposals to distribute a portion of NP revenue to district councils. This is because first, it would be almost impossible to create a system that divides revenues equally among the districts and NPs. Second, under such an arrangement, the linkages between the benefits of the NP and the people most affected by it would be further diluted. These reasons are given in greater depth in a position paper submitted to the Ministry.

2.5. PRIVATE SECTOR ISSUES

The TANAPA CCS has limited experience in community conservation with the private sector. It has mainly assisted in brokering mutually beneficial arrangements between operators and communities that could also be beneficial to the NP, either for wildlife or for land use. The CCS has plans to expand interactions between TANAPA and the private sector. Both SCIP contributions and assistance with transport will be given to encourage tourists into the NP off season.

Inside NPs, the CCS has the opportunity to review lodge or camp applications to TANAPA and to make recommendations on local hiring and procurement, peripheral siting of developments, and so on. However, CCS recommendations have been minor considerations in approving development applications. Actual community conservation conditions were not written into the lease consideration package.

Outside NPs, the CCS has tried to assist negotiations between communities and operators, such as those between Dorobo Safari and some of the villages of Loliondo and Simanjiro (Dorobo and Oliver, 1996). Unfortunately, it is almost irresponsible for TANAPA to provide encouragement as the legal standing of both villages and operators in these cases is precariously uncertain. Operators who have tried to open a real dialogue with communities usually lose out, while those that have avoided local decision-making have prospered. Reversing this perverse incentive should be a major objective of any national policy that is developed.

2.6. PUBLIC RELATIONS

Public relations work is important but has different objectives to, and must not be confused with, true community work. Positive publicity for conservation (particularly in urban areas) is no substitute for solutions to problems in communities most affected by wildlife. Thus sponsoring a local football team may be good publicity, but should not reduce the resources available for SCIP projects. However, TANAPA does link PR with community work. Those communities around the Serengeti working with the CCS will be visited by the TANAPA film van. In addition, schools will be involved in educational activities to reinforce the benefits of TANAPA's work. TANAPA's programme for Wildlife Conservation Awareness Week in Tanzania will also link communities near NPs with an overall national awareness of protected areas and wildlife. TANAPA also seeks press

coverage of CCS activities, and especially of SCIP projects, to show the electorate and decision-makers the importance of TANAPA to communities. TANAPA is trying to protect its right to direct benefits to those communities most affected by wildlife and by NPs.

3. SUMMARY

TANAPA's team of CCWs and the tools and methods developed by the C4 probably make its programme the most extensive community conservation initiative in Tanzania. TANAPA hopes this programme will continue to increase both in scope and quality.

The development of the CCS has been slow and measured. It might be criticised as insufficient to meet the urgent issues involved, but the aim has been to develop a system that adapts to the changing attitudes and ideas of both local people and TANAPA staff. Allowing both parties time to test and adjust to new ways of working is part of true community development.

TANAPA CCS is clearly constrained to certain activities in specific geographical areas. The areas out of the scope of TANAPA CCS would be best addressed by complimentary programmes working in areas served by the Department of Wildlife, whether as Game Controlled Areas, Open Areas or village lands. TANAPA has formalised its community conservation approach through new planning procedures and national policies. Conservation outside NP boundaries needs to be promoted in the same way. As many of these lands are now under village title, this will need an approach that recognises the predominating interests of the landowners. TANAPA looks forward to sharing its experiences in community conservation with those working on community conservation outside of NPs, and in collaborating with other stakeholders where appropriate.

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13. COMMUNITY-BASED CONSERVATION AROUND THE SERENGETI: THE SRCS APPROACH

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1. INTRODUCTION

As human populations expand, resources within protected areas (PAs) will come under increasing pressure. Without concerted efforts to integrate local communities within PA management, habitat destruction will become increasingly significant, jeopardising past conservation efforts and the future of some societies. Attempts to conserve biodiversity often create conflict between local people and PAs, which is worsened by a lack of communication between conservation agencies and local communities. The Serengeti Regional Conservation Strategy (SRCS) follows the belief that successful environmental conservation requires local resource users to be fully involved in planning and management of the resources. Flow of resource benefits is an important inducement for their full participation. SRCS initiatives to design programmes that develop local community responsibility for protected areas were recommended at an international conservation workshop at Seronera late in 1985 (ole Parkipuny, 1996).

This paper describes the approach adopted by SRCS for involving local people around the Serengeti NP (SNP) in conserving wildlife. The programme has followed a bottom-up approach on issues with local communities. Workshops and village meetings are held with groups representing the communities. Resolutions produced by brain-storming and vigorous participation are implemented by the people themselves. Village boundaries have been demarcated and plans for use of the land have been made to resolve conflicts over land use. A conservation and development plan has been developed with full community involvement for the Serengeti Region. Planned programmes already implemented include formulation of village-based wildlife conservation initiatives using Village Wildlife Committees (VWCs).

2. BACKGROUND AND RATIONALE

2.1. SIGNIFICANCE OF THE ECOSYSTEM

The Serengeti Region of northern Tanzania and south-western Kenya (the Serengeti-Maasai Mara Ecosystem) spans about 30,000 sq km and is one of the most important wildlife regions in the world. The ecosystem is of outstanding biological, scientific, aesthetic and economic value. The prolific wildlife is the primary contributor to this value. However, some parts of the region are important as water catchments (Ngorongoro and Maswa), as archaeological sites (Olduvai Gorge and Laetoli), and as areas of geological and scenic interest. In recognition of its international significance, the ecosystem has been designated as two World Heritage Sites and a Biosphere Reserve in recent years (IUCN, 1986).

2.2. ENVIRONMENTAL PROBLEMS

Concern for the future of the Serengeti ecosystem has been increasing. The human population has expanded tremendously in the seven districts comprising the Serengeti Region. For example, the overall population increased by about 39% from 1967 to 1978, while the population of the Serengeti District alone increased by 54% during these ten years (SRCS, 1991). Consequently demand for land is high, especially in the west. Farms and settlements have appeared on PA boundaries, eroding buffer zones and leading to increased destruction and various demands for unsustainable human activities around the ecosystem.

In response to these increasing conflicts between local people and PAs the 1985 workshop laid the foundation for SRCS (IUCN, 1986). A major goal of SRCS is to provide a framework for a long-term planning of resource use within the Serengeti Region. This will integrate and reconcile conservation and development objectives, so that each can be promoted without detriment to the other (SRCS, 1991).

3. LAND USE AND DEMOGRAPHIC TRENDS

3.1. PERSPECTIVES ON TRENDS IN LAND USE

The core areas of the ecosystem include SNP and Ngorongoro Conservation Area (NCA). These PAs were originally established at a time when the population of both wildlife, livestock and humans was unusually low due to a rinderpest outbreak.

Once the rinderpest epidemic had been controlled, human populations entered a phase of unprecedented growth and development. The population of the Lake Victoria Basin increased from 1.5 million in 1948 to 3.3 million in 1978. Agriculture followed suit and in the 1970s, improved veterinary services against trypanosomiasis, East Coast Fever and rinderpest led to a dramatic growth in numbers of livestock. The Lake zone cattle population grew from 450,000 to 2.75 million between 1915 and 1960. At the same time, wildlife populations have increased: wildebeest have increased nearly sevenfold in number, from 250,000 in the 1960s to the present 1.7 million.

These increases have put unprecedented pressure on the land, and resulted in serious conflicts between the needs of conservation and that of development (SRCS, 1991). Grazing land for such enormous livestock and wildlife populations is becoming scarce, as pasture land is converted to crop land. Grasslands in PAs are now seen by pastoralists as the last little-utilised grazing land.

The land tenure system in the Serengeti Region was mainly the traditional deemed right-of-occupancy which has the inherent disadvantage of not discriminating among users (see Tenga in this volume). The traditional Maasai lifestyle gives free access to resources. This opened their land to large scale agricultural schemes that conflicted directly with their traditional pastoral use of land. Lack of title deeds for village areas is coupled with the lack of any assurance of resource ownership by the Government to villagers west of the Serengeti. This has also resulted in open land ownership in these areas, and produced the environmental problems from poor land husbandry, poor resource management and accelerated encroachment into areas adjacent to PAs (IUCN, 1986; SRCS, 1991).

Great changes in land use are needed in the western Serengeti, but to date, none have been adopted. Human pressure is still producing conflicts in PAs. Few local people feel responsible for land and patterns of land use have not stabilised, particularly in Bariadi, Meatu, Magu, Bunda, Serengeti and Tarime districts.

3.2. LAND USE PLANNING MECHANISMS

The sustainable use of resources has been promoted among local communities around the PAs to try to end land use conflicts. This has become a priority for SRCS, and the goal is to enable communities to meet their long-term natural resource needs from their existing traditional lands legitimately. This should halt incompatible land use and over-exploitation of resources within protected areas. Currently, local people over-exploit resources because they have no legal authority or responsibility over them.

In 1989, in the Ngorongoro District a pilot exercise was launched to secure legal land ownership for villages, and establish land use plans. To obtain title deeds the village boundaries must be surveyed clearly. Some 18 villages in Loliondo and Sale divisions were surveyed and demarcated. Title deeds provide the sense of ownership and responsibility necessary to encourage careful utilisation of resources within the demarcated area. Leaders and community members were fully involved in the exercise. Before the survey started, early findings showed that local people had:

- no real sense of personal responsibility for natural resources of the area;
- a demonstrated reluctance to invest in the land or maintain facilities; and,
- a real vulnerability to land alienation by external developers.

In addition, the pressure on land was critical. In Loliondo 264 claims for land (estimated to involve 140% of the land available) had been lodged by January 1989. Most claims were made for the fertile plains land in the north western part of Loliondo Division by external agricultural developers. If these claims were successful, it was feared that pastoral communities would be displaced from the area, and seasonal grazing patterns would be disrupted. Already, the land used for a large barley farm, of no direct benefit to the local community, is showing signs of degradation.

The initial work demarcated village boundaries, but it became clear that villages argue over the position of boundaries. SRCS continues to resolve these conflicts when they arise. Village Land Use Plans have been completed for Ololosokwani, Arash, Olerieni-Magaiduru and Oloipirisi and are ongoing in Loliondo and Soit-Sambu. The importance of zoning village land is explained to the people and so included in the village land-use plans, and approved by village authorities and the District Council. The zones include areas exclusively for: agriculture, grazing, forestry, settlement, wildlife conservation, salt licks and other compatible land uses.

4. CONSERVATION AND DEVELOPMENT PLAN

Phase I of the SRCS was the problem identification marked by the 1985 workshop at Seronera (IUCN, 1986). Phase II started in 1989 with development of a Conservation and Development Plan, involving communities to resolve conflicts within the Serengeti Region (SRCS, 1992).

The design of a comprehensive plan was essential to integrate conservation with human development in a non-confrontational manner. A Community-based Conservation and Development plan for the Serengeti was created by involving local communities in both the preparation and execution of the plan. Programmes to stabilise land use interests in the region are included in the plan.

Next, areas suitable for development as buffer zones had to be identified. Three types of buffer zone were recognised: mandatory; voluntary; and, hard edge (SRCS, 1992). Where possible, Wildlife Management Areas (WMAs) should be established within the buffer zones. These are then managed by communities living adjacent to the buffer zone. Establishment of land with WMA status around the Serengeti is expected to start early in Phase III. SRCS is currently working with district governments and local people to transform Hard Edge buffer zones into voluntary zones so wildlife can be managed by communities in these areas. SRCS will continue its bottom-up planning strategies for the management of WMAs once they are accepted as policy in the Tanzanian conservation system. Indigenous human communities should be encouraged to diversify in methods of wildlife management. Other land use practices that are compatible to wildlife conservation, such as bee-keeping, should be promoted among land owners (SRCS, 1993).

5. INFRASTRUCTURE FOR COMMUNITY-BASED CONSERVATION

Around the Serengeti, as in other places, wildlife is an economically important resource for rural communities. Consequently, SRCS wants village communities to have legal rights to manage and benefit from wildlife, so reversing the present illegal and unsustainable offtake of wildlife. It will then be in the villagers own interest to support the laws protecting wildlife, so reducing the cost of enforcement. To achieve this, greater positive interaction between local communities and PA managers is needed. This is central to the survival of wildlife in Tanzania. However, PA managers need time to appreciate this paradigm for change. Local communities are also hesitant in believing that wildlife, once state-owned property, is being truly entrusted to its former custodians for their management. Therefore, it is time a national policy outlined the communities' responsibilities for managing resources on their land and adjacent wildlife PAs.

Village wildlife conservation activities are authorised and supervised mainly by the Village Wildlife Committee (VWC), with village scouts providing the necessary manpower. This has brought improvements in the management of wildlife because villagers have begun reporting illegal hunting activities for the first time. A total of 21 wire snares from areas bordering SNP have been collected by village scouts. Locally prepared game meat, known as *kimolo*, weighing about 370 kg, 2 bows and 10 poisoned arrows, have been recovered from poachers. In a different incident, village scouts from Robanda, one of the five villages, intercepted a bus carrying *kimolo* prepared from about 30 carcasses of wildebeest. They impounded the bus in their village and arrested four fellow villagers who were trafficking the dried meat to distant villages for sale. The village authorities admitted that this approach to benefit the communities was becoming popular. SRCS intends to provide some training to the village scouts and a comprehensive seminar to the VWC members early in phase III.

SRCS also supports the Cullman Wildlife Rewards and Benefits Scheme (Robin Hurt Safaris, 1996) in the south of the ecosystem. This scheme has been extremely successful in reducing illegal off-take south of Maswa GR. SRCS hopes a national policy on community involvement will approve this scheme and outline it to all other wildlife operator companies.

6. BENEFIT SHARING

SRCS supports the central Government's decision to share benefits from wildlife with the districts. However, the Wildlife Department must advise on the best way to do this in the respective district. Some of that money should be spent on community-prioritised development projects. The District Game Officer and/or a Park Extension Warden, should work hand-in-hand with other district authorities to implement such projects. This will simplify the dissemination of the message to

communities on the importance of wildlife conservation. Thought should also be given to conservation education among the communities in the district.

SRCS recently engaged a local socio-economic consultancy to find the best way of distributing funds from consumptive and non-consumptive wildlife utilisation within a district (SRCS, 1992). The consultants involved all concerned authorities, ranging from TANAPA, local councils and local communities, and the final report is awaited.

7. CONCLUSION

The Wildlife Department has shown its commitment, by organising this important workshop, to formulating a coherent community-based conservation policy for Tanzania. Community involvement is now accepted almost world-wide as necessary to any conservation strategy (Maige, 1990). The Wildlife Conservation Act No. 12 of 1974 must be amended accordingly. Existing definitions, such as *Game Controlled Area*, were meant to preserve *game* alone, to the detriment of human welfare, and must be replaced. Human settlements and activities, which were not addressed in the GCA concept, have threatened the long-term viability of otherwise perfect wildlife spill-over areas. New conservation regulations should investigate land ownership rights, sustainable resource use, and ways for communities to internalise effects on wildlife (in its ecological sense).

Tanzania must ensure that PAs become economically viable, socially and culturally acceptable, and ecologically well managed as quickly as possible. Land-use conflicts must be avoided, or at least minimised. Our PAs should be prosperous, like those in countries where private enterprises and local communities have been well integrated in conservation and benefit from a profitable eco-tourism industry.

ACKNOWLEDGMENTS

The author wishes to thank the Norwegian Agency for International Development (NORAD) for financial support.

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14. THE DEVELOPMENT OF COMMUNITY-BASED CONSERVATION AROUND THE SELOUS GAME RESERVE

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1. INTRODUCTION

Community-based conservation was developed around the Selous Game Reserve (SGR) to provide a long-term practical solution to maintaining the integrity of the SGR as a World Heritage site. The Selous Conservation Programme (SCP) was established to achieve this objective. SCP recognises that the immediate threat to wildlife conservation is poaching, and that the greatest danger facing conservation in the long-term is illegal and unsustainable offtake of wildlife and/or habitat loss. Therefore, the overall objective of SCP is to provide pragmatic and long lasting solutions for the problems of illegal offtake and habitat loss.

Since its inception in 1987, the programme has rehabilitated the SGR and secured a 50% retention scheme from its income. These funds are required for the efficient management of SGR. With an assured source of income, anti-poaching activities, infrastructural development and basic staff social amenities have been greatly improved.

Important as these efforts may be, they only provide short-term answers to conservation problems. Neither wild animals nor the breakers of conservation laws respect the boundaries of SGR. Without the cooperation of communities living along the boundaries of SGR, conservation efforts inside SGR will become unworkable in the long run.

2. SELOUS CONSERVATION PROGRAMME

The importance of having practical support for conservation from the rural communities prompted SCP to establish a joint pilot project between the Governments of Tanzania and Germany. The project was one of the first in the country that aimed specifically to target rural people as a basis for more effective wildlife conservation.

2.1. PROJECT COVERAGE

The key implementors of SCP comprise the following: the Regional Natural Resources Officer of Morogoro, and the Regional Game Officer of Ruvuma; two German advisors; one rural development officer; two community wildlife officers; four village workers; and, the management of the SGR. Relevant District Game Officers are co-opted when the need arises. To date the programme is carried out in three districts, namely Morogoro, Songea and Tunduru. Over 80,000 people encompassing 33 villages benefit from the programme.

2.2. METHODOLOGY

Initially SCP started to solicit for support in 16 selected villages that were key routes or centres for poachers. The aims of SCP were explained at all levels within the community. In villages this normally took the form of lengthy and repeated village meetings and informal dialogues and discussions.

Support with self-help projects has usually been the first form of cooperation with villagers. Originally this was aimed at winning the confidence of the villagers who were normally suspicious of anything to do with wildlife and anti-poaching. This *door opener* is not needed so much anymore, as SCP has become better known. The programme specifically avoids developing into a general rural development project because of limited resources.

All viable self-help projects can qualify for support, but the beneficiary must contribute 50% of the total cost. SCP has in the past supported the rehabilitation or construction of wells, school buildings, dispensaries, roads, bridges, oil and grain mills, fish ponds, sewing machines, drama groups, and so on. All projects are requested by the villagers, either as individuals, as groups or through the Village Council. Women are of special concern and about one third of all projects promoted are run by women.

3. INSTITUTIONAL SETTING

3.1. VILLAGE NATURAL RESOURCES COMMITTEE

Once mutual understanding has been established, SCP then encourages villagers to select their own committee, that in turn decides on all matters like crop protection, communal hunting and distribution of meat.

Where the village is isolated and sufficiently large, the village elects its own committee, for example in Songea and Tunduru. Where the villages are small and close to each other, two or more villages may combine to have one committee.

The villages also appoint their village game scouts, who are normally young people of good standing. Their job is to patrol the village wildlife areas, to monitor game populations, to control poaching and to assist with the hunting. Village game scouts liaise closely with the District Game Assistants and with the SGR staff, and as far as possible patrols are done jointly. The villages pay scouts some allowances or provide rations on patrol. The SCP trains scouts and provides some basic equipment like uniforms, boots and field gear as a temporary measure. Later on the villages will provide these items from their own resources.

3.2. COMMUNITY WILDLIFE MANAGEMENT OFFICER

SCP has created a job profile for a Community Wildlife Management Officer (CWMO), to address changes in conservation philosophy away from those of traditional game officer. The duties of this post also include aspects of community development, self-help promotion and range management. The CWMO has become an advisor and trainer rather than the more traditional controller and prosecutor.

4. THE NEED FOR DISTRICT NATURAL RESOURCES COMMITTEE

The term *wildlife* is generally taken to include wild plants and animals, together with their constituent habitats. Administratively, several authorities have legal responsibility over the closely-linked organisms constituting the wildlife of Tanzania. These different authorities are highly specialised and disjointed, and this often results in conflicts and inefficiency. In such a situation, the forest guide understands his marker, the game scout believes in his rifle and the fisheries officer sees conservation as fishing. In contrast, the villagers see plants and animals as depending on each other, and do not perceive any need for exclusive pieces of legislation. This sound ecological reasoning, and the envisaged demand for technical advice and training required to adopt the policy of community-based conservation, has led SCP to recommend the establishment of a District Natural Resources Management Committee. The committee would include as members the District Game Officer, District Forestry Officer, District Fisheries Officer, District Agricultural and Livestock Officer and District Officer as Chairman, elected councilors and representatives of PAs. The committee would settle disputes and conflicts, decide guidelines for wildlife management and recommend or decide quotas for utilisation. The Natural Resources Officers of the Ministry would advise and control the lawful operations (see Figures 1 and 2).

5. LAND USE PLAN AND WILDLIFE MANAGEMENT AREAS

SCP has prepared land use plans that take into account the ecological needs of wildlife species. The Government of Tanzania requires the demarcation of village boundaries as part of its land use planning policy (Planning and Assessment for Wildlife Management, 1996). Villagers are eager to participate in this programme as it gives them the opportunity to obtain title deed for their land. However, the official programme is impeded by lack of funds. Hence, SCP finances the operational costs of the Regional Land Use Planning team to undertake surveys within project areas, to prepare land use plans, and to demarcate village boundaries and the boundaries of SGR. This is done only on request from the Village Council, and the village in turn must participate fully in all decision-making during the entire lengthy process. In terms of land use planning, special consideration is given to Community Wildlife Management Areas. In agreement with the village, suitable areas are designated for wildlife. Thus, a buffer zone is created between SGR and the cultivated or inhabited land. The villagers are given access to wildlife on their lands, in return for limiting the scale of agricultural use and other incompatible forms of land use practices. To date a total of 710 sq km of land in Morogoro Rural District and 1265 sq km of land in Songea District has

Figure 1: Community-based wildlife management organisational structure during implementation period

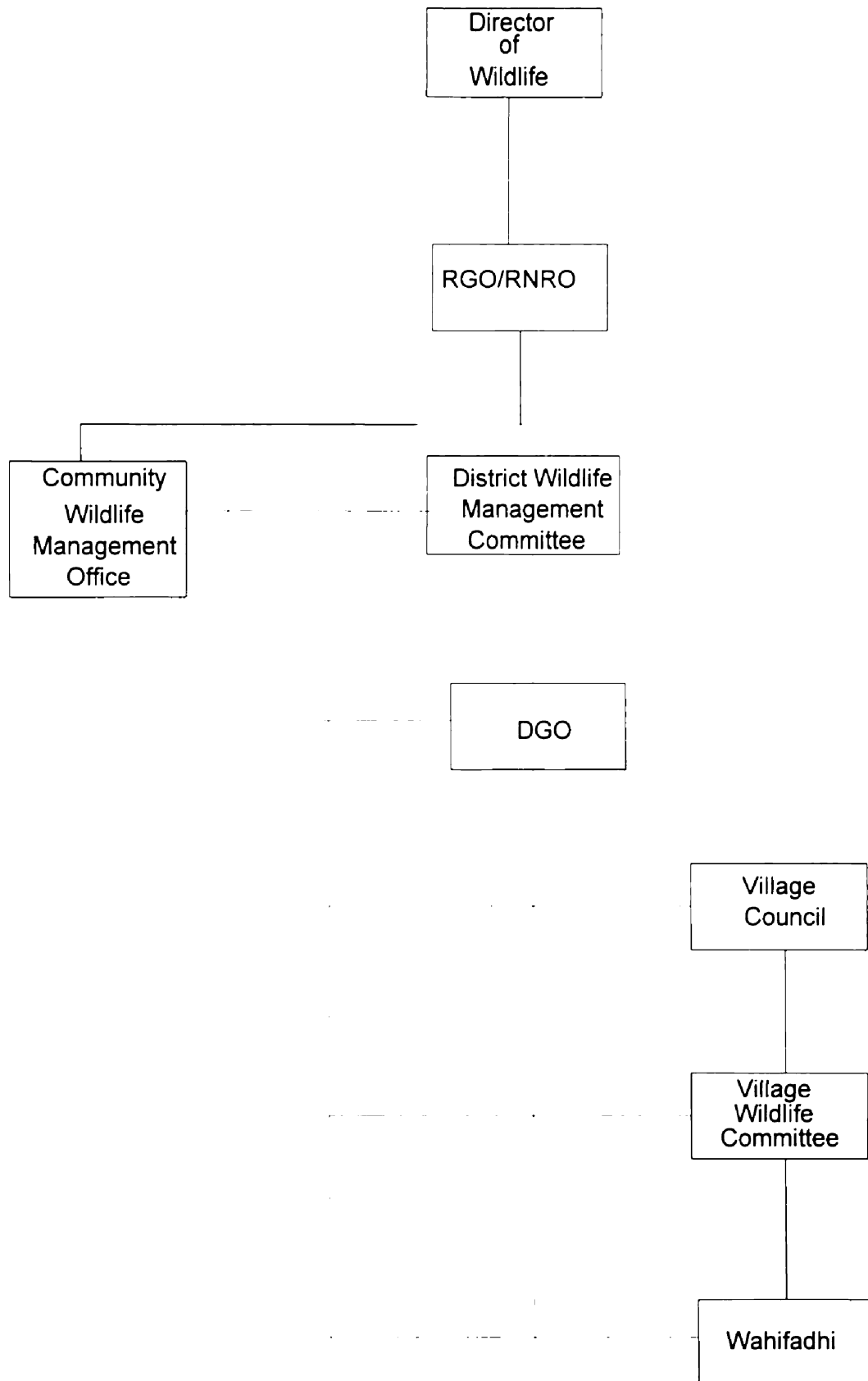
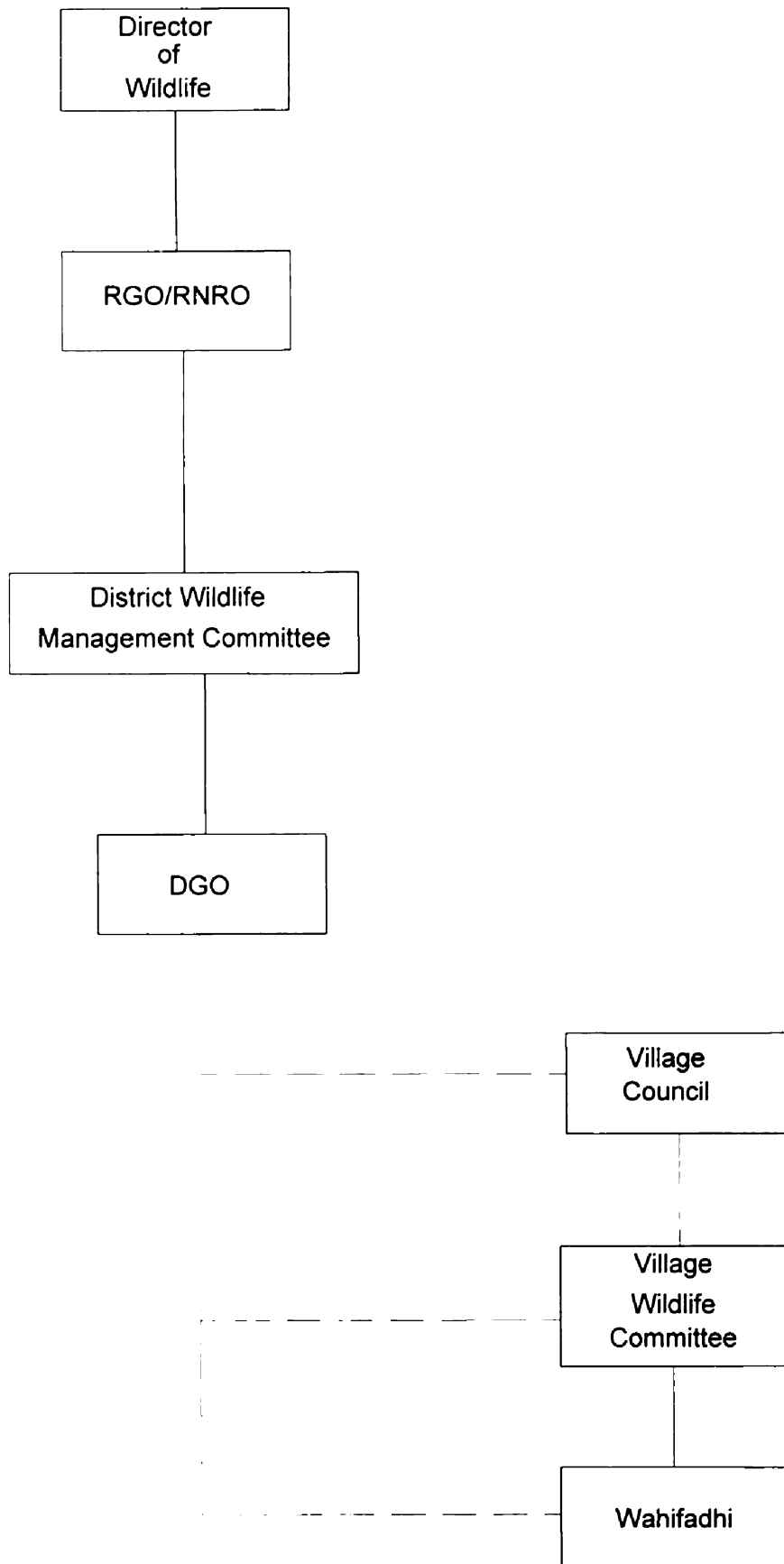
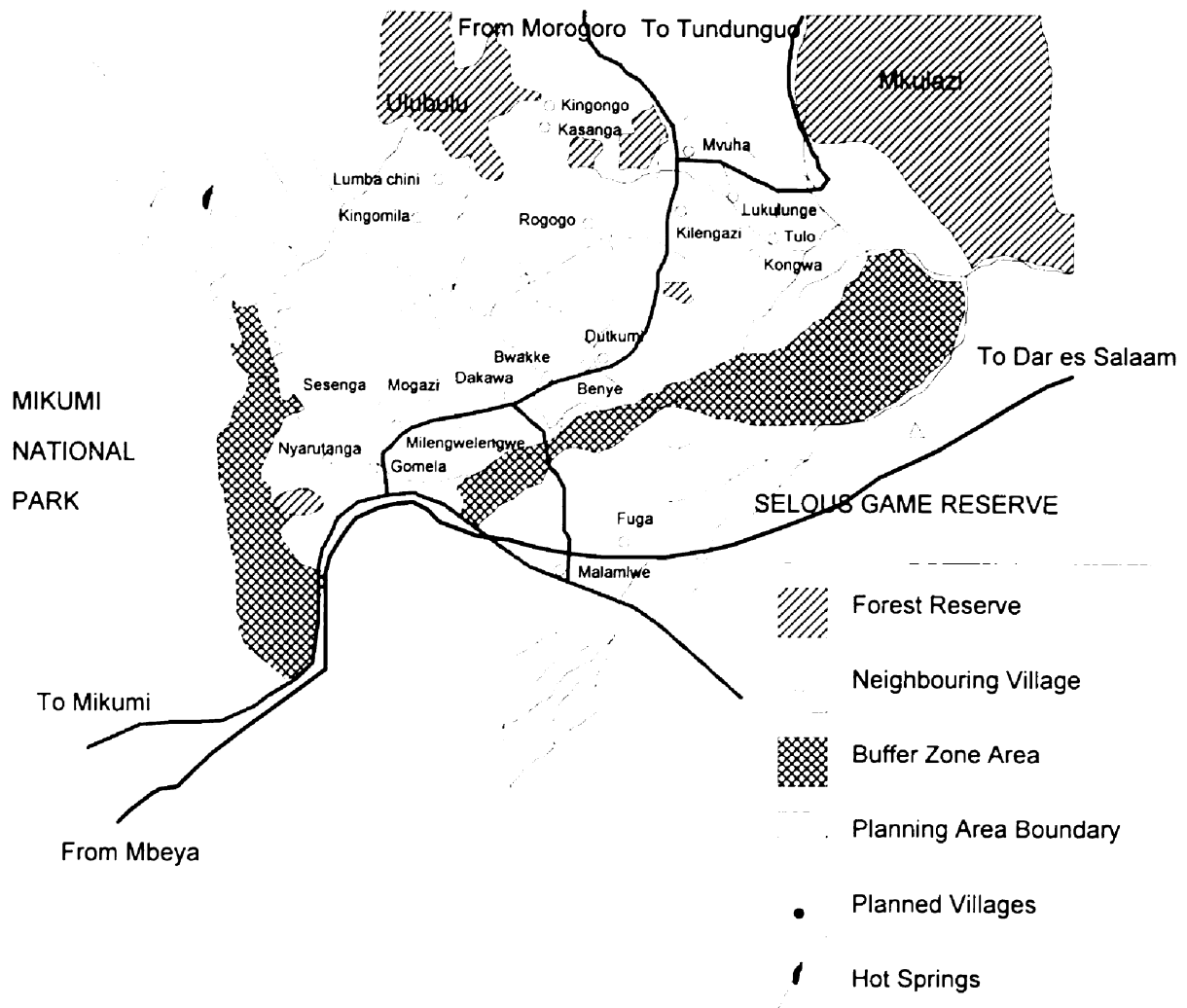


Figure 2: Current community-based wildlife management organisational structure



been designated as Wildlife Management Areas (WMAs). The other planned forms of land use include land for natural forest reserves, fuelwood forest reserves and agriculture (see Figures 3 and 4).

Figure 3: Communal wildlife management areas in the Kisaki-Mvuha buffer zone



6. QUOTAS FOR WILDLIFE UTILISATION IN VILLAGE WILDLIFE MANAGEMENT AREAS

There was very little information to underpin scientific management of wildlife outside SGR before SCP was initiated. The traditional job of the Wildlife Department was confined to anti-poaching and problem animal control (PAC). There were no regular wildlife species monitoring and censusing activities. The measures of success were based on the number of animals killed during crop protection and poachers arrested or pieces of ivory confiscated.

SCP started its programme outside SGR by training the village scouts to collect basic information on key species of wildlife. The data collected included species' name, date and place of observation, numbers in the group by age and sex. During patrols, the village game scouts also estimated the distances they have travelled and where they sighted the animals. The village game scouts and traditional hunters are very conversant with the hunting areas and are knowledgeable about the animals found in their area. Using the experiences of the traditional hunters, SCP can now roughly separate the buffalo in Songea WMA according to their groups, at least during the dry season. This knowledge assists in deciding whether the quota is based on one or more district populations.

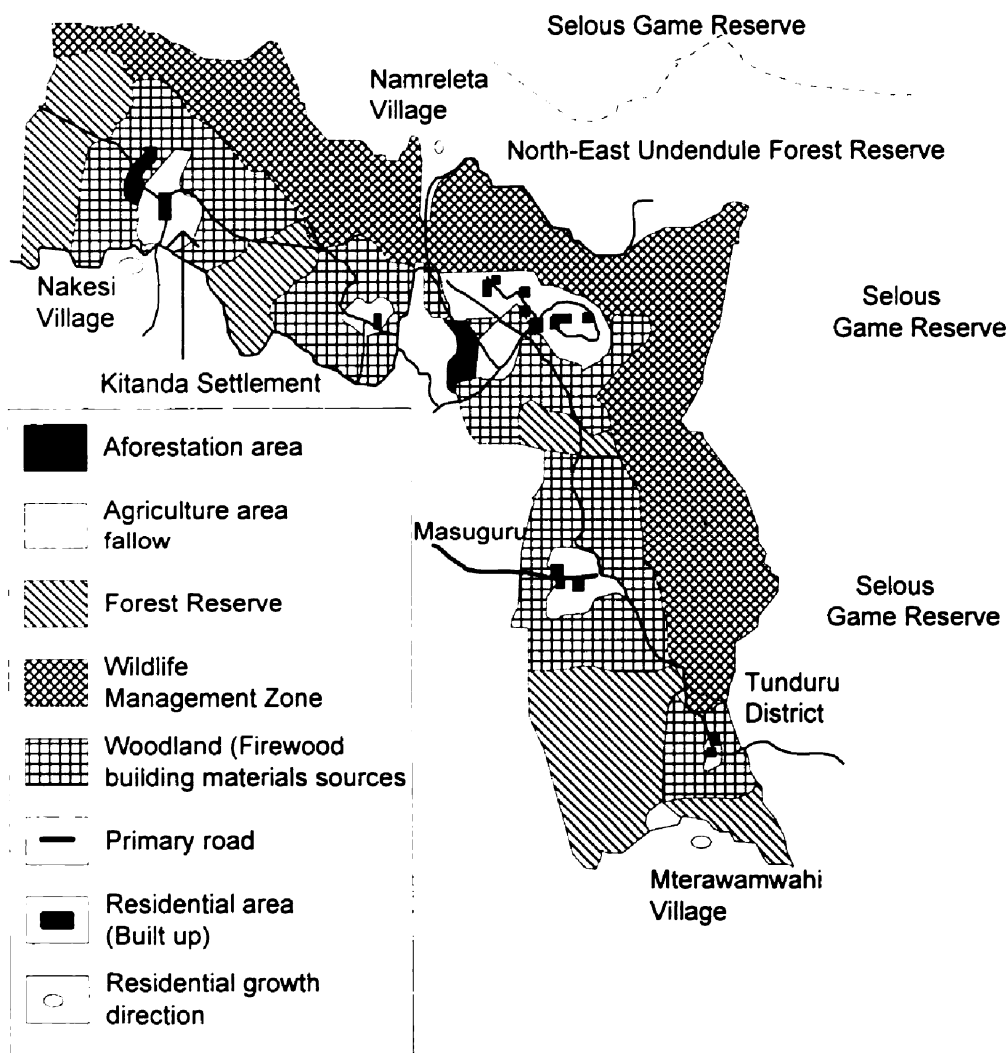
Using the information from the field, it was then possible to come up with a conservatively low hunting quota, for community, tourist and resident hunting. No quota was set for problem animal

control as such. Instead, the problem animal quotas were inflated so that more of this quota could be hunted as part of the normal quota. However, this arrangement did not work because hunting was confined to a six month dry period (July to December), while most damage by problem animals takes place during the rainy season (January to April) when there is no hunting.

The first (trial) quota was set by the Regional Project Coordinator and was based on the information collected by the villagers. The draft proposals were sent to the village committees for discussion and then submitted to the Director of Wildlife for ratification and final approval. The quotas were approved without any changes. On average, each village is allowed to hunt on communal basis a maximum of nine medium to large ungulates and other specified numbers of small game. The animals allowed include buffalo, wildebeest, eland, waterbuck, reedbuck, warthog, duiker, and bushpig.

Quotas for tourist hunting are also set by the Regional Project Coordinators, submitted to the Director of Wildlife, who then issues it to the clients. This quota is not communicated to the region and sometimes it is not adhered to.

Figure 4: Land use types in areas of Songea District bordering the SGR



7. BENEFITING FROM WILDLIFE

7.1. COMMUNITY HUNTING

In Morogoro District Pilot Areas most of the villages are located along the Mvuha/Kisaki and Mvuha/Magogoni Road (Figure 3). Although these villages are located close to one another, not all of them have a physical share of a wildlife area. This rules out the possibility of each having

separate WMAs. Since all villages used to hunt together communally, the associated villages have resolved to manage the wildlife at Ward and Divisional levels. Unlike Morogoro, pilot villages in Songea District are isolated and occupy large areas of land. Therefore each village has its portion of WMA that is managed at the level of the village. During the years 1991-1993, these villages had permission to hunt game animals communally on their land. Utilisation was usually 80% of the quota for big ungulates. The actual shooting was done by Government Game Assistants, but the processing and distribution were the responsibilities of the villages. The meat was sold to the members of the community. Data were not available for Tunduru and Morogoro Districts. However, pilot villages in Songea District earned a total of Tshs 1,537,155 (the equivalent of US\$ 4130) from the sale of game meat from 90 animals during 1992-93 (Table 1).

Table 1: Earnings from hunting in the Songea pilot villages (using Tsh 300 in 1992 and Tsh 450 in 1993 = 1 US\$)

Year	Animals hunted	Total sales (Tsh)	Total sales (equivalent US\$)
1992	43	646,955	2150
1993	47	890,200	1980
Total	90	1,537,155	4130

7.2. EXPENDITURE

The type of expenditure varied from village to village depending on the immediate needs of the villagers, the vision and standing of the committee and the Village Government, notwithstanding the pressures from above. The type of expenditure usually included: the purchase of drugs; contribution towards milling machines for women; rations and allowances for village scouts on patrol; contributions for Mwenge (Independence Torch); and entertainment for public officials. An example of the income and expenditure statement for 1993 is given for the Songea Pilot (Table 2).

Table 2: Expenditure in the Songea pilot villages during the 1993 hunting season (using Tsh 450 = 1 US\$)

Village	Income (Tsh)	Expenditure (Tsh)	Net Balance (Tsh)	Net Balance (US\$)
Kilimasera	152,700	120,800	31,900	71
Kitanda	63,200	6,000	57,200	127
Mchomoro	323,200	140,250	182,950	406
Likuyuseka	197,450	163,450	34,000	75
Nambecha	153,650	69,175	84,475	188
Total	890,200	499,675	390,525	867

There are problems associated with proper accounting of revenue, and also in accountability. Hence, in all these villages the money in cash was initially being deposited in the general account of the village. Some Village Council members were spending the money without approval from the Village Assembly. However, the situation has changed now since each of the villages operates a separate wildlife account.

8. TOURIST HUNTING

Tourist hunting is currently allowed to operate side-by-side with community hunting activities. In 1992, the Government agreed that 25% of the game fees accrued from tourist hunting were to be paid to the District Council in which hunting took place. Unfortunately in most districts, these moneys are of no direct benefit to the rural communities who co-exist with the wildlife. This causes further resentment of the industry, which is the most economically rewarding among the potential utilisation options (Planning and Assessment for Wildlife Management, 1996). The practice of voluntary contributions by the clients hunting with the different outfitters is not in the long-term interest of conservation, because this is not an assured source of funding. It is strongly recommended that, where an area has qualified to become a WMA, part of the revenue accrued should remain in the areas where it was earned. It is appropriate that a bigger portion of the conservation and hunting block fees remain in the areas where hunting activities take place.

9. PROBLEM ANIMAL CONTROL (PAC)

The Wildlife Department was established originally to control problem animals, and that role still persists for many Game Officers. Conventional methods that involve killing of animals are not only

wasteful but uneconomical. Besides incurring losses in life or property, there are further costs in terms of manpower and material resources to destroy the problem species. In some areas, PAC supplies meat to rural communities and also improves public relations for the game official, as well as securing extra income. However, in most genuine PAC cases, the trophies and meat are wasted. SCP has attempted one alternative method of control to solve this outstanding problem, which accounts for about 25% loss of agricultural crops in rural areas around SGR.

- Introducing the use of non-lethal methods of PAC control, such as thunder flares. The shortcoming of this method is that it can only be used during the rainy season in order to avoid unprescribed fires. Our experiments with village scouts have demonstrated positive results, showing that elephants can be driven out of the affected shamba for at least 14 days.

In future, it is recommended that a 7-day safari be introduced for the purpose of PAC, with profits deposited in village accounts as token for damage.

10. ADAPTIVE TRAINING

The type of training that is currently taking place is a two-way learning process between conservation experts and villagers. This approach helps to expand the knowledge of both experts and the local people in conservation. This is workable when it is recognised, respected and appreciated by those facilitating it. Therefore, our training programme takes place at three levels:

- Incorporation of the Village Wildlife Management Committee members. This is done through seminars, dialogue and discussions organised at both formal and informal levels. SCP also distributes reading materials for the villagers, such as pamphlets on man and wildlife. Training of this nature enables committee members who serve in the capacity of wildlife policy-makers at village levels to speak the language of conservation.
- Training of village game scouts who are responsible for carrying out the day to day patrol activities in WMAs. This training typically takes into account traditional values of wildlife, including religious and spiritual values, and also cultivates interest in indigenous plants and animals of medicinal values. The elementary course programme for village scouts lasts for six weeks. Currently trainers and participants are accommodated in tents and SCP has requested to use the facilities at the Likuyusekamaganga Refugee Settlement for training purposes when the refugees are repatriated. SCP does not intend to create a permanent training centre for the village scouts because adaptive training must not be turned into an academic school. Indeed our training motto is *Learn and Do*.
- SCP has organised formal and informal training for facilitators who have all been instrumental in implementing the projects. For example, many indigenous plants constitute a considerable part of the diet of the local population. This is not fully appreciated and is the reason why one of the SCP training objectives is to train our experts in conservation to learn from rural people. Most facilitators have attended planning workshops, seminars and short courses both within and outside Tanzania. There is now a growing demand to extend training programmes to those groups of people who are directly involved in decision-making at different levels. Training is one way of overcoming resistance to change.

11. SUMMARY OF ACCOMPLISHMENTS

Since its establishment, SCP has, through confidence-building strategies, managed to integrate the rural community with conservation. Conservation institutions for the people have been set up, community initiated conservation areas have been established which also serve as buffer zones for the SGR. The communities have started to receive direct benefits though these are not yet significant. Adaptive training programmes to prepare the rural communities for meaningful conservation management of natural resources in their land have been introduced.

As a result of the above accomplishments, conflicts between wildlife and rural communities have been reduced. Conservation is becoming a shared responsibility between the rural community and wildlife personnel. More people outside the current SCP areas want to be involved, and SCP is now extending the services to Liwale District in Lindi Region.

12. CONSTRAINT

The basic limitation to the general development of community-based conservation, including around the SGR, is lack of an enabling policy and legislation. This problem was communicated to

the Director of Wildlife who appointed a conservation team to review legislation. The committee drew members from Forestry, Wildlife, Fisheries, Community Development and Legal Department. This committee worked closely with the villagers for more than a year (1991–1992) and has since submitted its recommendations to the Director of Wildlife. The recommendations of the committee on Legislation for Community Wildlife Management were approved at the Annual Meeting of the Wildlife Department in Arusha in April 1993. It is strongly recommended that these should be incorporated by the Government in the National Community Conservation Policy and Legislation.

REFERENCES

Planning and Assessment for Wildlife Management. 1996. Options for community-based conservation in Tanzania, with special reference to possible benefits and to village title. (This volume).

15. RUAHA ECOSYSTEM WILDLIFE MANAGEMENT PROJECT: THE FIRST STEPS

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1. INTRODUCTION

The Ruaha Ecosystem Wildlife Management Project (REWMP) operates from a base in Tanzania National Parks (TANAPA) at Ruaha National Park (RNP). REWMP liaises with the Department of Wildlife (WD) and the Iringa Rural District Community Development Office (DCDO). The project has two main roles, as follows:

- to prepare a comprehensive management plan for RNP; and,
- to direct benefits from wildlife to the surrounding communities.

The project is still in its early stages, having been established in November 1992. The community-based conservation work only began in July 1993.

RNP is bordered by Rungwa and Kisigo Game Reserves to the north. Lunda Mkwambi Game Control Area (LM GCA) surrounds a substantial proportion of the RNP boundary to the east and south-east (Figure 1). REWMP made a decision to begin work with the communities living inside the GCA, as this area was identified as the priority buffer zone to RNP.

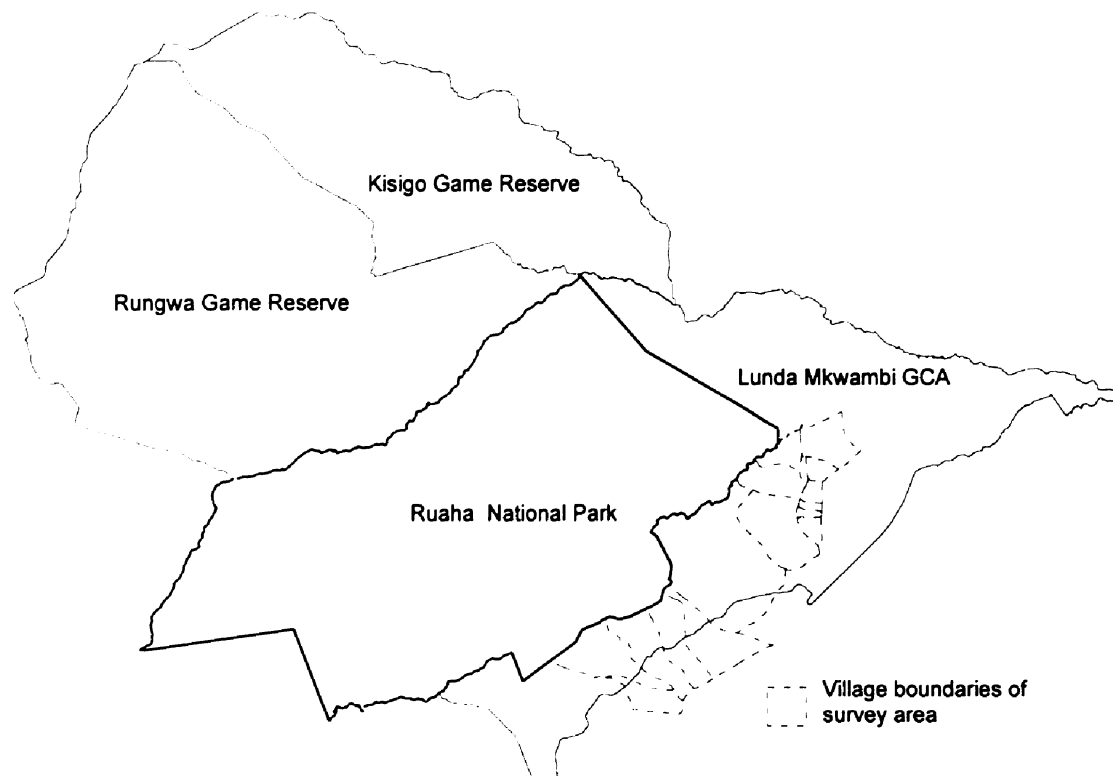


Figure 1: The project area, showing RNP, the surrounding GRs, and LM GCA

A number of factors influenced this decision, as follows:

- The potential geographical area that REWMP could target for community-based conservation is enormous. However, it was felt more could be achieved through a pilot project and concentrating on a smaller priority area that buffered RNP; and,
- The villages of Idodi and Pawaga Divisions situated in LM GCA have a relatively high resident human population. These villagers were known to have been encroaching on RNP land, but equally likely to be affected by their close proximity to RNP and its wildlife.

Records for the years 1989-1993 show that 64% of all poachers apprehended originated from these two divisions (Figure 2). A further breakdown of these data illustrates that arrests of poachers have decreased since 1989 when a substantial number of arrests were related to ivory poaching specifically. However, the number of poachers arrested, who live in this target area has not changed dramatically over that period of time (Figure 3). Furthermore, the majority of the arrests since 1990 relate to meat, fish and honey offences, all subsistence activities (Figure 4). Thus, from the perspective of TANAPA, the boundary with LM GCA represents the largest section of effective unprotected boundary to RNP, despite this area having been accorded the status of a GCA. Indeed, the Regional Game Officer (RGO) and the Iringa Anti-poaching Unit confirmed the long history of poaching activity in LM GCA.

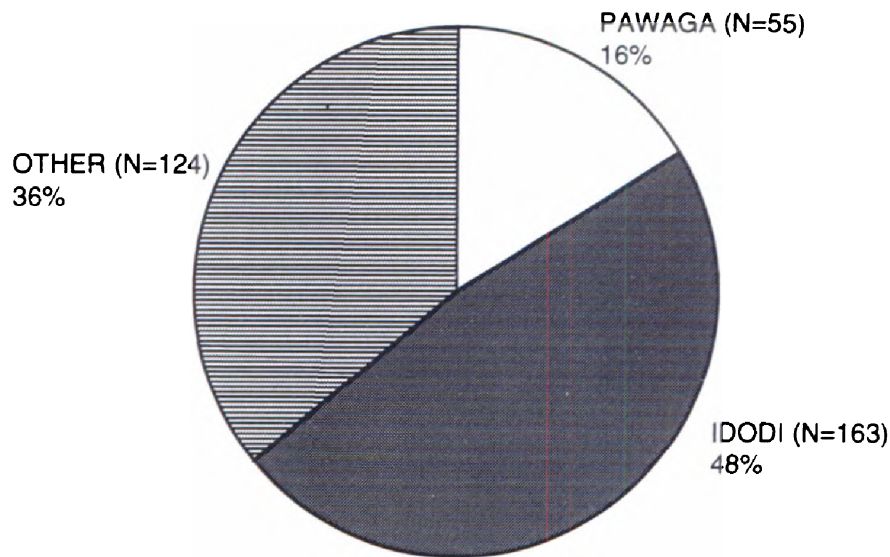


Figure 2: Percentage of poachers caught in RNP from Idodi & Pawaga Divisions in 1989-1993

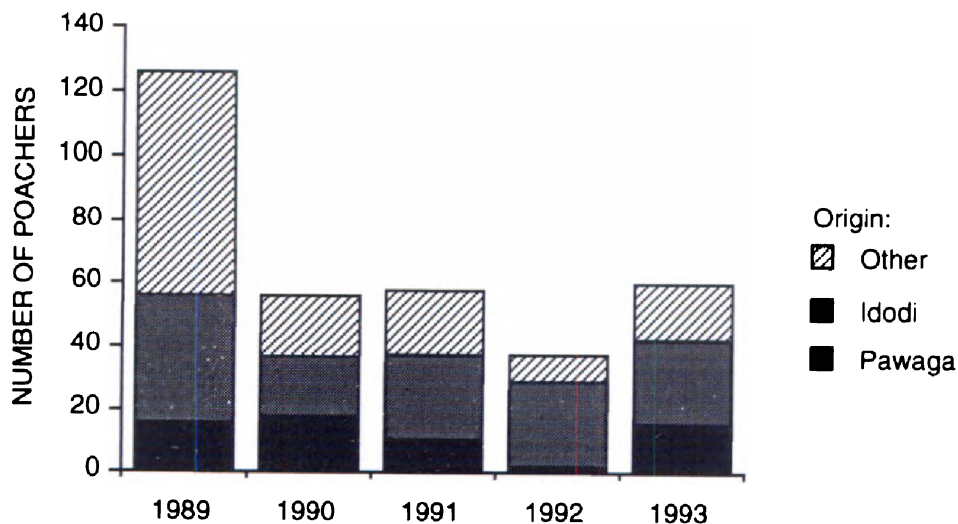


Figure 3: The origin and numbers of poachers caught in RNP in 1989-1993

In contrast, the perspective of the villagers is that they do not benefit from the area, but instead bear a high cost of co-existing with the wildlife. Some 80% of the sample population reported crop damage in 1993 (REWMP questionnaire). Monkeys and bushpigs were the

main species cited. However, elephants and hippopotamuses were also reported as crop raiding in villages where rice is cultivated near to the Great Ruaha River.

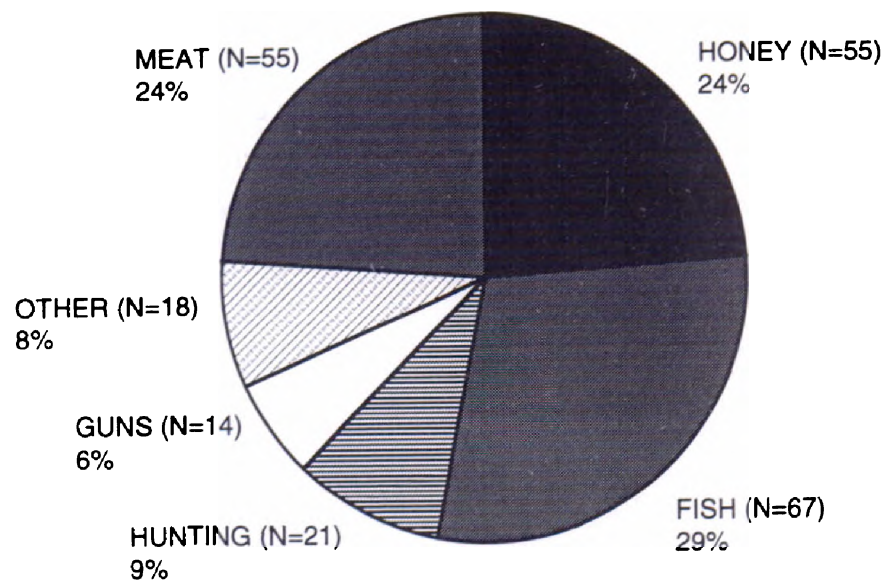


Figure 4: Offences committed by poachers arrested by RNP in 1990-1993

- Although the GCA was gazetted in 1985, it has continued to function as a *de facto* open area (indeed, it is still often referred to as the Ruaha Open Area). The resulting confusion over its conservation status has led to a dispute between local resident hunters from Iringa, and tourist hunters operating inside the GCA. The villagers do not believe that either of these two groups of hunters is representative of the local rural population.

In conclusion, conservation of LM GCA presents a complex problem for the wildlife authorities concerned with the Ruaha Ecosystem, and community-based issues in LM GCA appear central to its successful management.

2. LAND USE

2.1. CURRENT LAND USE PATTERNS

The area north of the Great Ruaha River, often referred to as Lunda North (LN) is currently used exclusively by tourist hunters, and it has no resident human population. In contrast, the area south of the Great Ruaha (LS) is relatively densely populated. The hunting quota for 1993 was allocated to both the Iringa resident hunters and to the tourist hunting company operating within the hunting block.

The 16 villages in Idodi and Pawaga Divisions were selected primarily for their location (Figure 1). They represent the target villages for Phase I of the project. A total of 29,556 people was estimated to be living in these villages during a 1988 census, and population counts carried out as part of the REWMP surveys indicate the resident population has since increased. The villages have registered village status but do not hold land title deeds for their land. Land is allocated to individual farmers by the village government on request.

Farmers grow sorghum, maize and rice as staples. Sale of rice is the main source of income for households in the area, although some farmers also cultivate cash crops such as tomatoes and peanuts. The villagers living in Pawaga appear to be poorer than those in Idodi, and approximately

20-30% of the population are estimated to be meeting subsistence needs only from agriculture (Table 1).

Table 1: Estimated Average Annual Earnings (AAE) from agricultural surplus in Idodi and Pawaga Divisions base on questionnaire data from 5 Villages (N = 250)

Village (Division)	AAE (TSh)	AAE (US\$)	RANGE (Tsh)	RANGE (US\$)	% Not selling
Mbolimboli (Pawaga)	18,000	40	0-120,000	0-270	36
Isele (Pawaga)	20,000	44	0-130,000	0-290	36
Kimande (Pawaga)	29,000	64	0-180,000	0-400	18
Makifu (Idodi)	36,000	80	0-210,000	0-470	8
Tungamalenga (Idodi)	30,000	67	0-196,000	0-435	32

2.2. COMPATIBLE LAND USES

REWMP is not aware of any data relating to commercial fishing inside LM GCA, although commercial fishing occurs in the villages of Ismani Division near Mtera Dam (CONCERN, pers comm). However, subsistence fishing inside LM GCA is common. Fishing is clearly a community issue, because all the 5 villages surveyed to date have raised fishing issues during village meetings. Under the regulations pertaining to a GCA, fishing is a controlled activity requiring a licence. Nevertheless, 15% of the adults questioned in Pawaga (N=150) had eaten fresh fish the previous day and none of them held a fishing licence. There is clearly scope to permit subsistence fishing in this area. Any right to utilise fish would create goodwill for the wildlife authorities. At the same time, it would relieve them of policing an activity that is unlikely to be detrimental to the environment and that provides much needed protein to a diet typically deficient in protein.

A number of pastoralist tribes are resident in the LM GCA including people of the Waparakuya, Wabarabaig and Wagogo tribes. Although transhumant pastoralists are known to create little negative impact on their environment, the current trend appears to be for pastoralists to become sedentary in this area. The micro-economic data collected as part of REWMP surveys indicates the majority are practising agro-pastoralism in association with particular villages. Furthermore, there is regular encroachment into the eastern part of RNP by pastoralists seeking grazing and water. While grazing domesticated species alongside game is not necessarily detrimental to the wildlife, sedentary agro-pastoralism would not be compatible. Grazing is not allowed inside RNP, and the role of pastoralists inside a potential WMA would need to be restricted to non-permanent grazing.

3. ESTABLISHING A WMA

3.1. TO CREATE A SINGLE WMA OR MANY INDIVIDUAL VWMAS?

Consideration of current land use patterns (see 2.1) leads to the question of how large should be any future WMA that replaces LM GCA? Although, REWMP has not yet collected aerial survey data on the status of wildlife in LM GCA, ground sorties and crop-raiding indicators suggest there is little wildlife left in much of this area. Patterns of cultivation, coupled with poaching activity have essentially reduced the wildlife population throughout the area south of the Great Ruaha River. Furthermore, tourist hunters also report a decline in the wildlife north of the river. Recently, there has been increasing pressure to open up LN to the resident hunters. The wildlife remaining in LM GCA requires an alternative conservation strategy if it is to survive.

A total of 15,000 people are resident in the Pawaga area. By comparison the village of Mlowa, in Idodi, has a population of approximately 3000, according to 1988 census data. However, Mlowa has land use rights to approximately 1.75 times as much land as the whole of Pawaga. In addition, Mlowa borders the major section of the RNP boundary. That is to say, Mlowa falls within the prime area for wildlife conservation and utilisation.

A key question REWMP had to ask was *how can we establish a WMA that will conserve and rehabilitate the wildlife population, prevent a hard edge to the RNP, as well as provide direct benefits to everyone who needs them?*

The concept of the Village Wildlife Management Area (VWMA), where each village sets aside land within its village boundaries for the exclusive use of wildlife, is not a feasible model at this site. It could potentially create fragmented wildlife areas, but most significantly at this site it would exclude

many of the Pawaga villages from participating since they do not have available land and the wildlife is diminished. Instead, a single larger WMA appears the solution to this problem. In this instance the land designated for wildlife utilisation would be determined by the wildlife resource, particularly the wildlife distributions. Villages with land use rights inside or bordering that area could then become stakeholders in the WMA, which would remain a single large area extending over several villages, and allocated for wildlife utilisation.

Although LM GCA is gazetted as an existing protected area, it is possible that REWMP may recommend upgrading the status of LN to that of Game Reserve, with an area of approximately 3000 sq km. This could be with the proviso that a proportion of the funds generated from tourist hunting in a future GR accrue to the villages in LS; while prime wildlife land within LS is rehabilitated for the benefit of the local population as a WMA. This may also involve the de-gazettement of a proportion of this area in LS. The stakeholder villages would then be expected to actively contribute to the management of the WMA.

In the light of existing initiatives in Tanzania, REWMP would recommend that the definition of a WMA for a policy document needs to be flexible enough to accommodate both the WMA approach as adopted by the Selous Conservation Programme (Krishke *et al.*, 1996), and the type of WMA that is described here. Accordingly, REWMP suggests that a WMA should be an area of land allocated to wildlife conservation, utilisation and other compatible uses of natural resources. However, the benefits from a WMA should accrue directly to those bearing the highest cost of living with the wildlife, namely the indigenous population co-existing with it, and to no one else.

Such a definition provides for compatible land uses and compensates for effective loss of land to agriculture by the villages.

3.2. WILDLIFE QUOTAS

Quotas are currently set in Iringa by the RGO. Quotas were allocated to both resident hunters and the tourist hunting company operating in the LM GCA in 1993. The quota for residents included an allocation for 27 eland, a species likely to be in decline or absent from the area.

Ideally quotas should be based on availability of species and status of the wildlife populations. This demands use of annual aerial surveys in the area to ascertain species' presence and density. Furthermore, trophy size can also be used as an index to estimate the status of trophy species where use is for tourist hunters.

4. WILDLIFE AUTHORITIES, LOCAL COMMUNITIES AND RESOURCES

Local communities are frequently suspicious of the motives of people connected to wildlife. This is not surprising as their previous contact typically involved either being arrested or told not to go into certain areas. In some instances, people have been born inside a protected area and moved out. In such situations, trust building will naturally be a slow process. Extension work, environmental education and providing a platform to voice problems can begin to build trust. However, people need to be able to see a real change in their personal circumstances. At the end of the day they must feel they are personally better off because of the wildlife on their doorstep. Put simply community-based conservation is about people benefiting from wildlife, and perceiving it as a benefit rather than being excluded from its use.

4.1. DO COMMUNITIES PERCEIVE THEMSELVES AS BENEFITING FROM WILDLIFE?

Surveys undertaken by REWMP showed that, on average, 76% of all respondents said they did not benefit at all from conservation (Table 2).

A further question asked those people who had answered yes to this question to describe the nature of that benefit (Table 3). Results showed that most people saw only an indirect benefit, in that they benefited only because the Government earned foreign exchange. Protecting the environment linked to rainfall that is needed for farming ranked second. A number of people said they benefited through illegal activities, particularly hunting and fishing, although they indicated they knew these activities were illegal. One individual out of the 100 interviewed from two villages where TANAPA has active SCIP projects identified a SCIP project as a benefit. This highlights the important issue that, when a very direct benefit such as meat, fish, honey or money is seen to come from sale of wild game meat, it is seen instantly as coming from the environment and value is placed on the resource. Unfortunately, rural development projects are not always perceived as a

benefit by individuals even when a village has participated in the selection and implementation of that project. However, they do make good trust-building ventures, and although they will not solve the long-term problems faced by community-based conservation, they are perceived as an important component by REWMP.

Table 2: Do you benefit from conservation of the environment or the RNP?

Village (District)	% Yes	% No	N
Mbolibii (Pawaga)	18	82	50
Isele (Pawaga)	18	82	50
Kimande (Pawaga)	40	60	50
Makifu (Idodi)	8	92	50
Tungamalenga (Idodi)	36	64	50

Table 3: How do you benefit from conservation? (N = 56, or 22% of those in Table 2)

Rank	Benefit	Frequency
1	Forex to the Government	18
2	Protection of environment, such as rain for farming	11
3	Seeing wild animals	10
4	Able to eat meat	9
5	Poles for building, and Fuelwood	4
6	Able to eat fish	3
7	TANAPA built a new CCM Office	1

4.2. HOW WOULD THE COMMUNITY LIKE TO BENEFIT FROM CONSERVATION AND RNP?

When asked how they would like to benefit, our respondents came up with the list in Table 4. Meat in the stomach is one of the most direct benefits from wildlife, and one of the most sought after. For many people, game meat plays an important social and cultural role in their society. Unfortunately, with the best will in the world it is not possible to provide such benefits if the wildlife does not exist or is severely diminished. In their responses, it is also likely that money generated by wildlife did not rank very high, simply because people do not believe it can happen. This highlights a second important issue that monetary benefits must go direct to the village level. Villagers should be allowed to choose what they do with that money. Empowering village governments directly will give the sense of ownership and responsibility that is being sought in community-based conservation programmes. The routing of money elsewhere and telling people they are benefiting will not necessarily be viewed by them as helping them. The category of *Others* in Table 4 included: protection from crop-raiding, grazing inside RNP, farming inside RNP, collecting honey in RNP, and, cutting trees and palms inside RNP.

Table 4: What would you like from RNP and conservation of the environment? (N = 250)

Rank	Benefit	%
1	Meat	58
2	Money/Development	18
3	Fish	12
4	Visit to RNP	8
5	Others	4

5. THE OPTIONS FOR REWMP

A multi-dimensional approach to the various problems described here is more likely to yield some success.

5.1. THE EXISTING MECHANISMS

5.1.1. The existing TANAPA SCIP programme, and additional low cost poverty alleviation extension work (Phase II of REWMP). At this time, RNP is heavily subsidised by the northern NPs through TANAPA's budget. Consequently, RNP is unlikely to be able to increase its own commitment to such programmes without donor aid. As a short-term strategy this does not provide a problem, but as a long-term measure the ethics of such an approach must come under scrutiny.

In short, such programmes are valuable extension tools, but they are unlikely to be long-term or self-sustaining strategies.

5.1.2. A discretionary wildlife quota from the Director of Wildlife. This would be a popular move with the villagers, and a conservative quota could probably be allocated to the villages *in lieu* of the quota currently given to the resident hunters. However, the status of the wildlife in the area would mean it could only be used as a short-term stepping stone, unless game numbers were to build up again. If the wildlife quota was destined to remain conservative, as is likely, then it would never be large enough to satisfy the whole community. Thus, as a long-term strategy, this is not really viable. It should be noted it also involves using the wildlife at well below commercial value to the nation.

5.1.3. An education programme. Such a programme is due to begin in September 1994. It could have a measurable impact on children, but is unlikely to have a major effect on adults in the absence of tangible benefits.

5.1.4. Other utilisation rights. This would include low impact, subsistence or small income generating activities, that target a potentially wide section of the population. Important here might be honey gathering or subsistence fishing. These activities are likely to be sustainable over a long period of time. A question that surrounds granting rights for such activities is whether or not they can be undertaken in RNP. This is important given the finding that most illegal use in RNP is by those carrying out such subsistence activities (Figure 4).

5.2. A PROPOSED MECHANISM TO INCLUDING BENEFITS FROM TOURIST HUNTING

Wildlife used to generate revenue through trophy hunting by tourists would involve minimum off-take and high income generation. It could probably incorporate some meat utilisation by villages as well, which would increase its benefit locally. As an exercise, the potential financial benefit that could accrue to villagers living in the project area was examined. The potential return from game fees from the LM GCA has been cited as US\$ 42,760 in 1992 (Planning and Assessment for Wildlife Management 1995). This is equivalent to approximately Tsh 21,000,000. Under the current Government agreement with District Councils that 25% of game fees is directed towards them, their share would amount to Tsh 5.25 million. Access to sums of money like this annually at village level would have a significant impact on the standard of living, especially if coupled with other benefits, such as subsistence use rights. It is important to highlight that this is the known figure generated in 1992, and it does not tell us what an optimum figure under improved management with better people-wildlife relations could generate.

Finally, one of the crucial issues that must be decided is how to get that money to the level where it matters most, that is to say, the villages. This project would make two further general recommendations:

- empower the villages directly; and,
- simplicity is vital, for experience tells us that complicated mechanisms of distribution must be avoided.

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16. OUTREACH PROGRAMME FOR THE MKOMAZI GAME RESERVE

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1. INTRODUCTION TO MKOMAZI GAME RESERVE

Mkomazi Game Reserve (MGR) lies in the north of Tanzania, midway between Mount Kilimanjaro and the Indian Ocean. The Usambara Mountains lie to the south, and Tsavo National Park (TNP) in Kenya lies to the north, of MGR, which extends along 100 km of the Kenyan border. MGR covers an area of 3,726 sq km, and when taken in with the adjoining TNP in Kenya, this ecosystem forms one of the largest continuous tracts of protected area (PA) in Africa. TNP and MGR are home for the migratory herds of elephant during the wet season. To the west of MGR lie the Pare Mountains at nearly 1600 m asl. From here the land falls away to the eastern lowlands to meet the Uмба River, which forms the south eastern boundary of MGR and provides its only naturally occurring source of permanent water. The only other regular water sources are the two dams in the western half of MGR.

MGR was established in 1951. It was remote and inaccessible, has always suffered from a lack of funds, and never attracted the support provided for the more glamorous wildlife PAs such as Ngorongoro Conservation Area and the Serengeti National Park. Therefore, it became badly degraded and its future hung in the balance until 1988. Heavy poaching had wiped out the black rhino, and greatly reduced the numbers of elephants, while deliberate burning and badly controlled hunting had taken their toll. Species of wildlife that grazed had been forced to compete unsuccessfully with the ever increasing number of invading livestock.

In 1988, the Minister of Tourism, Natural Resources and Environment, on behalf of the Tanzanian Government, decided to re-examine the status of MGR, with a view to saving the remaining wildlife. This resulted in a courageous decision to restore the wildlife potential of MGR by removing all resident tribesmen and their stock, and encouraging MGR to return to its original state. Plans included restoring a full complement of large mammal species, several of which were endangered elsewhere, and had become extinct in MGR. The 450 grazing permits for MGR that had been issued in 1951, and had been severely abused, were removed. MGR became a National Project attracting full Government support. The Department of Wildlife sought the external support and funding of the George Adamson Wildlife Preservation Trust in this task.

2. MKOMAZI GAME RESERVE OUTREACH PROGRAMME

Since September 1993, a team has worked together to start an outreach programme for the MGR. It was realised that degradation of the environment arose because environment problems were not connected with development problems. Development strategies are often based on economic growth. The MGR Outreach Programme places emphasis on both environment and development, because environmental conservation is a development activity and development is the people's choice. Equally, development activities must remain within the bounds set by the natural environment. If development just consumes natural resources to create a better economic situation, this will result in poverty and environmental degradation in the long run. There is no simple solution to these environmental problems because they are related to the people. Those who depend on their surroundings for their living have not been in a position to take care of their environment. The MGR Outreach Programme team is concerned with development and the environment of local people. The programme is trying to avoid poverty and to solve environmental problems at local level in close cooperation and participation with the people.

The logo of MGR shows a footprint of a man and a lion in black and white, suggesting the peaceful and natural existence of both mankind and wildlife in a healthy environment. The pressure is now on MGR from the outside. The only way it can survive and flourish is with the support of local communities, that is to say when local communities derive some benefit from MGR. The people involved must be aware of and acknowledge their environmental and developmental problems. Through participation at the outset in planning, execution and evaluation, sustainable development can succeed. An overall picture of the MGR area with its surrounding villages was built through a survey that collected baseline information about the surrounding population, their economic situation and general well-being, and their development efforts.

3. ANALYSIS OF THE PROJECT AREA

3.1. SOCIO-ECONOMICS AROUND MGR

The western border of MGR lies very close to the local villages of Pangaro and Ndea (Mwanga District). The southern border lies close to the villages of Kisiwani and Gonja (Same District). The eastern border lies close to Mnazi, Lelwa, Umba and Kalalani (Lushoto District). Hence, the MGR boundary spans three districts. Most of this area has a semi-arid climate, characterised by a long dry season from May to November, and a short rainy season from December to April, usually interrupted by a dry spell in January and February.

The agricultural system is predominantly rain-fed, which makes it highly dependent on natural resources. Agriculture in all the villages is dominated by the small holder sector, which employs around 90% of the population. Due to the surplus of maize, millet and beans in Kisiwani and Maore, the surplus production or cash crop around MGR is rice. Agricultural production in the arid parts is barely sufficient to sustain the farmers, who have to look for casual labour during the dry season. Land is still available in the different villages, but fertile land is very scarce. Extensive free grazing is still the system most used for livestock rearing. Most of the agricultural work is performed by women. If there is a cash crop, the sale is left to the men, while the burden of producing the daily food consumption is the concern of the women. Women are entirely responsible for the day-to-day care and management of the family and home, and spend many hours a day fetching water, collecting firewood, pounding grains, and taking care of the children.

The socio-economic situation of local people has worsened in recent years. High inflation rates, rising standards of living and the price of food consumed on a daily basis shows that the surplus income from food or cash crop production is insufficient. Basic services, such as education and health, are no longer free. Very high secondary school fees and boarding school costs makes studying an elitist occupation. Drugs are often not available. If they are available, it is only at relatively high prices in private shops or in church-related chemists.

Many men and women are constantly looking for income-generating activities. Nowadays labour is becoming specialised in the villages, and the number of village craftsmen, such as blacksmiths, carpenters, mechanics and masons, is slowly increasing. Individual women like to have their own income to provide for household needs or to reduce their dependency on men, through having an income that they can control. For the female heads of households, of whom there are many, this is essential. Income-generating activities for women are often very labour intensive and include beer-brewing, selling milk, honey, eggs, vegetables and snacks, and handicrafts such as mats, baskets, pottery, needlework and tailoring clothes. Hence the real profit for women is very low, and their lack of business, management and technical skills excludes many women from starting trade activities. Income generating activities for men include: running shops, hotels and grain mills, general labour, sale of second hand clothes and plastic household products, sale of cash crop such as rice, maize and tobacco, or mangos, sugar cane and bananas for beer brewing, working in the transport sector, working with timber, and metal products.

3.2. LAND TENURE AND LAND USE

Land tenure in Tanzania is vested in the village authorities. In most villages, individuals or institutions have rights of occupancy. However, many people do not have official documents. The land necessary for public development or use, such as schools, water intakes, roads and so on, can easily be obtained by the local government. Government initiatives to expand agricultural areas and to intensify land use through modern methods help to stimulate production of cash crops, but this puts enormous pressure on the pastoral areas.

For the local tribe of the Wapare, the area of MGR once served as a hunting ground and for grazing land. Maasai herdsmen used to graze their cattle in Mkomazi in the wet season from November to June. The oral tradition of this group of Maasai, known as Wakwavi, suggests that they had been permanent inhabitants of Mkomazi since 1905. After MGR was established in 1951, there was no law enforcement due to lack of funds and manpower, and MGR has become badly degraded. Poaching by the local Wapare, the deliberate burning by the Maasai, the overgrazing situation and the badly controlled hunting took their toll. Game became scattered and scared, and the process of soil erosion began. In 1988, the Tanzanian Government established the Mkomazi Project and all the Maasai and local Wapare were evicted from the MGR. Nowadays they live on

the borders of MGR, on land that has now also become degraded. The Maasai are now faced with overgrazed areas and with increased size of fields belonging to the local people.

4. PROBLEM ANALYSIS

4.1. SETTLEMENT AND POVERTY

Most villages around the MGR boundaries are relatively densely populated. The regional economy is based upon agriculture, mainly maize, millet and rice, followed by extensive free ranching. Livestock is a common feature in all the villages and animal husbandry is only partly integrated within the present farming system. Numbers of livestock are often still considered as more important than the quality of the livestock. Meat production is more important than the milk production. This over-exploitation leads to environmental degradation, and in the dry season especially there is enormous pressure on MGR. People of the surrounding villages try to use MGR as their pasture, but also herdsmen with their cattle from Same, Usambara Mountains and from different villages of the Pare Mountains use MGR. It is known that this is not allowed, and that individual permission for grazing rights is no longer available.

Environmental problems are always related to people, so both farmers, herdsmen and herd-owners must be called on to make more careful use of their environment and natural resources. Equally, business people, government staff and private organisations must help each other to raise environmental consciousness. Many private organisations, wealthy business people and highly educated government people have the opportunity to buy land rights in different villages, and can bring in or share in developmental activities. Hence, environmental degradation is not only connected with poverty and low standards of living. It is also connected with lack of awareness, irresponsible attitudes, a lack of interest in the future, and a lack of interest in the local environment. There is a clear relationship between population growth and environmental problems. More land is needed to grow food, to raise cattle, to collect firewood and to fetch water. A large population in a small area causes social problems. No one cares about anyone else and everybody is trying to avoid responsibility for the environment and for village development, in order to reach a higher economic level in a quick and easy way.

Development activities are often based on stimulating economic growth, which brings advantages for a small group of people. Economic growth has often taken place through over-exploitation of natural resources and those resources are not inexhaustible. Firewood and charcoal are the major domestic fuels in the different villages around MGR. Firewood collection is a task for women, and takes up several hours a week. In many areas around MGR, the emerging fuelwood deficiency is becoming a major problem for the women, who have to walk long distances in groups to collect firewood. Charcoal burning, traditionally the business of men, provides the cash income. Kerosene is very expensive and it requires special stoves for cooking, which are dangerous and inadequate for the daily *ugali* pot. Electricity is cheaper, but the high initial expense restrains the people from using this type of energy.

For most women a healthy environment is fundamental to her and her own children's survival. As the farmers, women rely upon natural resources for food, whether this is gathered through natural harvests or grown as crops. They look to natural systems for fodder, fertilisers, building materials, medicines and the subsistence of many of their income earning enterprises, especially in food processing and craft work.

The majority of houses in the villages around MGR are made of mud and poles and have thatched roofs made from palm leaves, grass or other natural materials. Only the people with higher incomes can buy corrugated iron sheets or are able to build with clay bricks or cement blocks. Building material like cement, timber, nails are very expensive. Many people in Kisiwani and Gonja used sisal poles in the past, which were plentiful.

4.2. PASTORALISTS AND MGR

The major problem that has hindered the development of MGR was the conflict between wildlife management and pastoralists. MGR was once a wet season grazing ground for the Toloha, Ruvu Maasai and Baraguyu (erroneously referred to by many people as Kwavi, a derogatory name). MGR was established as a replacement for the then Ruvu GR that was degazetted after heavy encroachment and degradation by agrarian and pastoral societies. MGR was invaded by the Ruvu Maasai and Baraguyu in the Uмба GR section soon after its establishment. The encroachment

was aggravated by the gazettelement of TNP in 1952. As a result, the Toloha Maasai were forced to become interlopers and practice their pastoral transhumant lifestyle within MGR.

In response to the mounting pressure from human and livestock populations in and outside MGR, the Government excised the Kalimawe area from Mkomazi for grazing and crop farming in 1957. At the same time Dindira Dam was constructed in MGR to supply water to wildlife because the only permanent water source, Uмба River, was becoming inaccessible. Lack of land use planning by pastoralists and farmers, particularly with regard to access to water and crop damage followed, and this was coupled with ineffective control of human encroachment of MGR. The creation of the Dindira Dam offered an unforeseen incentive for encroachment by pastoralists. In 1978, the Kilimanjaro Regional Development Committee was persuaded by the Wildlife Department to relocate the pastoralists to Ruvu. However, the pastoralists objected to this option and requested to be involved in evaluating suitable alternative areas.

The condition of MGR continued to deteriorate and wild animal numbers decreased. Habitat destruction, as a result of overgrazing, led to choking of dams with silt and a change in vegetation composition and structure. No dams except Dindira could now hold water for the entire dry season period. These circumstances forced most of the wild animals to move out of MGR into TNP. Wild fires were often started by pastoralists, and became an annual phenomenon, destroying and opening up woodlands and montane forests.

In 1981 the Wildlife Department revitalised negotiations on where to transfer the pastoralists. The District and Regional development committees in Tanga and Kilimanjaro Regions were involved in the negotiations. District and Regional officers visited MGR to verify the situation. In 1986 based on these efforts the local authorities agreed to the nullification of all permits for residence and grazing issued after the gazettelement of MGR. In early 1988 an agreement was reached between the local, regional and Wildlife Department authorities to the effect that all pastoralists living in MGR should shift to Kiteto and Ruvu. By July 1988 all pastoralists had moved out of MGR.

5. OBJECTIVES OF MKOMAZI OUTREACH PROGRAMME

The Mkomazi Outreach Programme has set itself ambitious objectives of a long-term nature. However, these objectives are practical, logical and sustainable, and can solve present day problems and make these solutions work for the future. The Mkomazi Outreach Programme is based upon two main principles:

- to concentrate on villages bordering MGR and on their environmental and developmental efforts; and,
- to collaborate with existing local organisations.

The participation of local people will be encouraged in all phases of the development process from identification and planning to implementation, maintenance, monitoring and follow-up. The programme can only be implemented with the help of local government, ward development committees and ward leaders, the District Commissioners and District Councils.

5.1. TARGET GROUPS

5.1.1. Women: Women have developed strategies to maintain their environment on a sustainable basis, and will be one of the major target groups. Women should be listened to as the major agents of primary environment care. Therefore, the Mkomazi Outreach Project will work through an existing women's formation, *KUHAWA-KI*. This stands for *Kuinua hali ya wanawake wa Kisiwani*, which translates as *to raise the position and the status of the Kisiwani women*. The objectives will be to:

- promote activities that reduce women's workload;
- provide equipment to reduce their workload;
- promote the methods of gaining land rights;
- give management training and leadership training;
- emphasise economic activities;
- assist in development activities; and,
- strengthen their independence through promoting women's rights.

5.1.2. Pastoralists: The pastoralists will also be considered as a major target group for the Mkomazi Game Reserve Outreach Programme, which will try to help them to:

- organise themselves;
- promote land use planning activities;
- assist in development activities;
- promote agricultural activities;
- promote green manuring/grass and fodder planting activities; and,
- awareness activities.

5.2. OVERALL OBJECTIVES

The overall aim of Mkomazi Game Reserve Outreach Programme is as follows:

5.2.1. To establish an attitude of responsibility, through the following activities:

- seminars;
- historical research by villagers;
- picture/video/reports/articles; and,
- training of local leaders.

5.2.2. To raise awareness of environmental problems, through the following organisations and activities:

- schools;
- women's groups;
- junior and senior rangers;
- video/pictures/slides;
- books;
- magazine on Mkomazi news;
- visits to MGR;
- training leaders;
- football teams; and,
- exhibitions.

5.2.3. To help in stabilize the ecosystem of the surrounding villages, through the following:

- purchase of winnowing mill for rice and maize;
- purchase of oil press;
- purchase of wheel barrows for women; and,
- to promote fish ponds.

5.2.4. Collaborate with existing local organisations to improve effectiveness and to increase sustainability of development efforts, through the following activities:

- meetings;
- participation;
- training; and,
- awareness raising activities.

5.2.5. To help in a land use and land tenure programme, through the following activities:

- seedling production in village nurseries;
- tree planting activities and agroforestry;
- water maintenance;
- training;
- video/articles/pictures; and,
- planting strips of grass.

5.2.6. To introduce appropriate technology and equipment in agricultural development, through the following activities:

- green manuring and other forms of soil improvement;
- use of oxen to plough, to plant and to weed;
- seek methods for transporting harvests;

- to assist in developing a method to formulate and design village land use and land tenure plans in a participatory way, in accordance with the agricultural policy of Tanzania;
- to assist in boundary demarcation;
- to reduce the selling of barren land to outsiders;
- to control overgrazing;
- to encourage dairy cattle;
- to help the village authorities in managing the area around MGR;
- to reduce the pressure on the villages of Kisiwani and Maore in the dry season, mainly from outside herds;
- to harvest hay in the so called buffer zone that belongs to the village; and,
- to promote the planting of trees and grass in the so-called rehabilitation areas.

5.2.7. To assist in accepting different customs and practices, through the following activities:

- organising meetings;
- promoting education;
- acceptance of implementation activities;
- awareness training; and,
- respect and enforce each other's rights.

5.3. PROPOSED PHASES OF MKOMAZI OUTREACH PROGRAMME

5.3.1. Phase One: Orienting phase

- to build up a relationship between local authorities, village groups, teachers and health workers;
- to categorise problems concerning:
 - Mkomazi Game Reserve;
 - environmental problems;
 - ideas/solutions;
 - development activities; through,
- studies and surveys.

5.3.2. Phase Two: Training phase

- education in the environment, wildlife, livestock and ecosystem by,
- using videos, books, trips to visit MGR, knowledge of wildlife experts, Mkomazi Newsletter, local experts and District experts; and,
- group formation at the level of women, juniors, seniors and honourables.

5.3.3. Phase Three: Follow-up phase

- public awareness activities;
- livestock activities and management through the veterinary extension services;
- community development;
- promotion of tourism; and,
- to build an educational/communication/historical centre in MGR by authorities, local people, pastoralists and government.

6. CONCLUSION

The decision to restore MGR to its former state was made by the Tanzanian Government, and has been assisted by the George Adamson Wildlife Preservation Trust. A major component of this project was to settle physically and financially the remaining pastoralists and help them in their development. Furthermore, the Mkomazi Outreach Programme was initiated by experienced community development workers.

The rehabilitation of wildlife species in MGR, and the Outreach Programme is not simply an attempt to *hold the line* on conservation. Work in and around Mkomazi is an endeavour to re-establish a complete ecosystem and to reverse the environmental damage that has been done. In the decades to come, projects such as this will assume increasing importance and significance. The political and economic state of the world dictates that environmental conditions will become worse before they become better. Therefore, in addition to limiting the damage, it is essential we should now master the techniques of revival and renewal. That process is the driving force of MGR, and for this reason is believed to be a very important project in the wider African context.

17. THE CULLMAN WILDLIFE PROJECT

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1. INTRODUCTION

The future of wildlife in Africa rests in the hands of its indigenous people. The Cullman Wildlife Project (CWP) sprung from the conviction that wildlife and its habitat can only be conserved by involving local people, and giving them a direct benefit from the wildlife among which they live. Wildlife must be an attractive, lucrative and beneficial form of land use to encourage its long-term stewardship by local communities. Without the full support and cooperation of local communities, wildlife in Africa is surely doomed. This paper provides an updated description of the aims and development of this project (Tanzania Game Tracker Safaris and Robin Hurt Safaris, 1996).

2. ESTABLISHMENT OF THE PROJECT

The CWP had its origins in the United States in 1989-1990, and attracted the support of a well-known businessman and hunter, who has since been a major donor. The CWP also owes its success to the generosity and support of many other donors. The CWP has also received enormous support from many Tanzanian Government officials. In particular, the Director of Wildlife has given energy and experience through a conviction that the CWP is pioneering the involvement of local communities in wildlife conservation.

3. STRATEGIC AIMS OF THE PROJECT

The CWP has a number of strategic aims, as follows:

- to promote wildlife and habitat conservation through proper sustainable utilisation of this renewable resource, and through the involvement of local communities;
- to promote and encourage village anti-poaching programmes;
- to cooperate and help the Wildlife Department in all its conservation ideals;
- to discourage illegal, unselective and wasteful use of wildlife, through commercial meat poaching, by such means as steel cable long-line snaring;
- to help local communities understand and manage wildlife in a sustainable manner and to take on responsibility for its long-term stewardship;
- to ensure that wildlife benefits a community in terms of money, employment, food and community projects;
- to compensate former poaching communities with legal cull quotas for meat to fulfill village protein requirements; and,
- to encourage and train communities in the full utilisation of wildlife products currently wasted, such as skins.

In summary, the idea is to involve village communities living among wildlife to take on responsibility for the well-being of that wildlife and its habitat. This responsibility comes from the realisation that wildlife is a renewable and lucrative natural resource, that will provide a better long-term return by its conservation, rather than by its over-exploitation.

4. FUNDING OBJECTIVES OF THE PROJECT

In order to achieve its strategic aims, the CWP has a number of funding objectives as follows:

- to fund and supply village anti-poaching teams with uniforms, food and supplies, transportation and wages;
- to help fund Wildlife Department anti-poaching teams;
- to fund rewards for successful results by both village and Wildlife Department anti-poaching teams; and,
- to fund the clear demarcation of boundaries of Game Reserves and future Wildlife Management Areas.

5. ACTIVITIES IN SUPPORT OF STRATEGIC AIMS

The ways in which the CWP works to achieve its strategic aims are as follows:

- each village forms its own anti-poaching team that works in close liaison with the Wildlife Department;

- all villagers are eligible to receive rewards for: snares recovered and destroyed; information leading to the arrest of poachers; the destruction of poacher camps; and, any firearms recovered from poachers and handed in to the Wildlife Department. Villagers also receive rewards for poachers arrested in the field, providing that the poacher is later convicted. The CWP has established a system of rewards that are shared among all those involved in obtaining successful results in anti-poaching operations. The amount of each reward varies with the seriousness of the offence (Table 1).

Table 1: Rewards for success at anti-poaching

Amount (Tshs)	Poaching items
5,000	Per poachers' camp destroyed
250-500	Per steel cable snare recovered and destroyed (depending on size)
50,000	Per muzzle-loader recovered and handed into Wildlife Department
80,000	Per rifle or shotgun recovered and handed into Wildlife Department
20,000	Per poacher arrested and convicted without firearm
55,000	Per poacher arrested and convicted with firearm
250,000	Per elephant or rhino poacher arrested and convicted

- the Wildlife Department issues CWP with a legal licence to crop in the Makau-Maswa hunting block during the annual migration to fulfill the villagers' protein requirements; and,
- village communities involved with CWP receive benefits that derive from the voluntary fees of 20% over and above the Government Game Fee, paid by hunting clients. The sums are paid into a CWP Village Benefits Account and are managed with the assistance of the CWP Director to be used for a beneficial village project.

These four points have gone a long way to changing the attitude of people living in the rural areas. Their recent attitude was one of conflicting interest, and of quick returns through illegal poaching, and this is changing to an attitude of stewardship through sustainable wildlife utilisation.

6. RESULT OF VILLAGE ANTI-POACHING ACTIVITIES

The CWP has operated for over 6 years in the Makau-Maswa area and for 3 years in Burko, Niensi and Miele blocks. The CWP has been most successful in achieving the above goals. Since 1990, over 345 poachers have been successfully convicted, 59 poacher camps destroyed, and 80 firearms recovered. An average of 3,000 snares per year have been recovered and destroyed. One wire cable snare is estimated to destroy at least 5 animals over its useful life. Thus, the CWP has saved an estimated 15,000 animals per year, or 90,000 animals over the past 6 years in the Makau-Maswa area alone. Hence, involving and rewarding local communities through proper conservation projects has great potential for success.

It is notable that fewer snares are recovered in and around participating villages in the Makau-Maswa area. Teams are patrolling further into the bush and are primarily finding small wire snares and very few cable snares. Hence, the CWP appears to have achieved one of its major objectives in the Makau area, by almost eliminating long-line snaring. However, there is no room for complacency, and anti-poaching activities will continue until this threat is completely eliminated.

7. DONATIONS FROM THE PROJECT

Over the past 6 years, a number of donations have been made as a result of the CWP. These donations have all been funded through the generosity of hunting clients of Robin Hurt Safaris and Tanzania Game Tracker Safaris, who have paid 20% over and above their Government Game Fees, as follows:

- two large 4WD vehicles to Ugalla Game Reserve;
- two large 4WD vehicles to the Director of Tanzania National Parks;
- one small 4WD to the District Game Officer, Monduli;
- one 4WD pick-up for the use of the CWP Manager in his duties of organising anti-poaching and other activities around Maswa Game Reserve;
- one large 4WD for the CWP Director in hunting areas around Tanzania;
- one Valmet 1280 Tractor for the cutting of anti-poaching tracks and the demarcation of boundaries
- US\$ 5000 donated to repair the Endososat Dam in Monduli District for 3 Maasai villages;

- US\$ 5000 donated for additional Village Benefits; and,
- two 4WD Kias pick-ups for CWP Field Officers to assist with anti-poaching activities.

8. VILLAGE BENEFITS

These can be summarised as:

- money donated by clients, based on a percentage of game fees payable on the animals shot in the area adjacent to the village; and,
- game meat distributed to the population of the village.

The funds donated by hunting clients are held by CWP on behalf of the village. At the end of the hunting season, the money is totaled and the village and district authorities are advised of the amounts available. Villagers are asked to work closely with the CWP Directors to utilise funds for village elected development projects. Village proposals are collated with the district authorities in order to avoid any confusion over the possible duplication in funding projects. To this end several very generous donors have agreed to finance a CWP Director, who undertakes the coordination of all aspects of the communities adjacent to the CWP hunting blocks. The CWP Director works closely with village governments and villagers to identify community needs and to select projects that will benefit all villagers. Village participation and contribution to decisions are greatly encouraged. Villagers elect the project which they wish to be funded, and then elect a six-member Project Committee to manage its implementation.

The CWP Director trains village committees in areas of planning, budgeting, record keeping and assists with material procurement and organising transport. Village Benefit Funds are dispersed as needed according to the Project Committee's plans, following village government approval of their budget. There is a strong emphasis on accountability and transparency in the utilisation of village funds. Most villages are in remote locations where villagers have little or no formal education. Therefore, the amount and type of assistance required varies for each committee. The level of assistance and support given by the CWP Director is tailored to each village so that villagers realise development goals from their own efforts.

In the first years of CWP, the villagers of Makau were assisted in the purchase of an engine-driven maize sheller and mill. In 1993 Makau used its funds to buy a tractor, trailer and harrow. The villagers of Sakasaka, situated on the western edge of the Maswa Game Reserve, were then assisted with the purchase of a village vehicle. Although vehicles and machinery are extremely important to remote villages, the costs of repairs, running and maintenance can be prohibitive to a restricted village budget. Therefore, villages are now being encouraged to think of using their funds for some form of building that will be a permanent asset. In many villages, primary schools are very old and in poor condition. Many students are without desks and sit on dirt floors, mud bricks or rocks. Villagers have elected to rehabilitate or build new primary schools for this reason, and to construct desks so that all students are in an environment that encourages learning. The CWP is now encouraging this type of project. The participating villages, their earnings to date and projects completed or in progress, are shown in Table 2.

It is important that villagers appreciate that their new asset is not merely a product of some aid scheme. Instead, it must be realised that it has come as a direct result of stewardship of their wildlife. In Makau, the village in which CWP was started, this concept has taken root. This appears one of the reasons for the very marked decrease in the collection of snares in the area.

9. EMPLOYMENT

A policy of CWP is that local village people are employed so far as is possible in its hunting camps, rather than bring in crews from Arusha. This is particularly applicable in the case of skilled men as trackers and gunbearers, who are inevitably ex-poachers, very familiar with the areas and natural hunters. Through their employment, they earn more than they would by poaching, and so do not have the same incentive to poach. Staff such as cooks and waiters are more difficult to find in remote villages, but suitable local men are purposefully recruited and trained for all possible positions in the hunting camps.

10. VILLAGE MEAT QUOTAS

The Director of Wildlife has granted a cropping quota of wildebeest, zebra, buffalo and impala. This quota is taken to provide meat for Makau, and Irambi Ndogo villages, together with local hospitals and clinics that assist these villages. The actual cropping and distribution of meat to the villages is

undertaken by CWP, with support from CWP donors. Meat is distributed within the villages by the villagers themselves. The hides of the wildebeest and impala are shade dried and suitable markets are located to sell these for leather manufacture. The zebra skins are treated and sold to hunting clients. To make the cropping more sustainable, half the proceeds from the sale of skins are put towards cropping expenses. The other half is divided between the participating project villages and distributed along with other village benefits.

The meat quota has been very well received by the villagers and provides meat more equitably than previous poaching activities. The quota has given villagers confidence in the forward thinking of the Government of Tanzania to reward communities that actively become involved in wildlife conservation.

Table 2: Village communities involved in benefit programmes from the Cullman Wildlife Project through Robin Hurt Safaris. Total earnings to date (in US\$) and use of funds are shown for each village

Village	District	Years with CWP	Earnings (US\$)	Village benefits
Makau	Meatu	1991-96	52,822	Maize mill and mill house, tractor and trailer, repairs, two wells, new primary school
Iramba Ndogo	Meatu	1994-96	12,023	New primary school
Lepurko	Monduli	1992-96	13,203	Teacher's house, maize mill, water pipeline, dam rehabilitation
Lendikinya	Monduli	1992-96	13,203	New dam, water pipeline, new primary school
Losimongori	Monduli	1992-96	13,203	Repairs to mill, water pipeline, mill house, village boundary, new primary school
Mbaashi	Monduli	1992-96	11,203	Dam rehabilitation, new dams
Arkatan	Monduli	1996	4838	New primary school
Usevya	Mpanda	1993-96	18,793	New primary school
Inyonga	Mpanda	1993-96	18,793	Primary school rehabilitated, desks for students, new secondary school
Kambi Katoto	Chunya	1993-96	20,479	New primary school, 8 wells, latrines and desks for school
Mbuga	Mahenge	1993-95	5365	Primary school rehabilitated, pit latrines
Iputi	Mahenge	1993-95	5365	Primary school and teacher's offices rehabilitated
Ngaruka	Urambo	1993-96	26,856	Project selection underway
Total		1991-96	216,146	

11. INVOLVEMENT OF OTHER HUNTING COMPANIES

The CWP was founded by the then Chairman of Tanzania Game Tracker Safaris. At the end of 1992, Robin Hurt Safaris was formed as a separate company. This has led to a proliferation of the CWP and its concepts. Both companies now operate their own independent projects in the areas surrounding their allocated hunting blocks. Both companies follow much the same ideals, ideas and practices and, when working in adjacent areas, operate in close liaison with each other (Tanzania Game Tracker Safaris and Robin Hurt Safaris, 1996). Hopefully, all other hunting companies in Tanzania will find their own similar projects.

12. CONCLUSIONS

The CWP has constantly stressed that it must have support and impact at **village level**. The Village Benefit Funds are deliberately managed at the village level for the strongest and most immediate impact. Villagers are in regular contact with the CWP working on projects, discussing wildlife conservation, community concerns and anti-poaching activities. This builds a strong link between the villagers and their wildlife resource. Wildlife is an important resource for the remote village, and one that will eventually make higher return per unit area than many forms of destructive subsistence agriculture. The CWP has been a resounding success in Tanzania. It has encouraged villagers to become involved with conservation of wildlife and its habitat. With their support, wildlife will remain indefinitely as a valuable renewable asset.

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18. POTENTIAL MODELS FOR COMMUNITY-BASED CONSERVATION AMONG PASTORAL COMMUNITIES ADJACENT TO PROTECTED AREAS IN NORTHERN TANZANIA

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1. INTRODUCTION

The wildlife sector in Tanzania and international conservation organisations now place great emphasis on local community involvement and participation in wildlife conservation. Bringing people into the equation is perceived as a strategy that can best ensure long-term and sustainable conservation, and contribute significantly to local community development.

A central issue in a community-based conservation policy is where rights, responsibilities and benefits from wildlife fall. A clear answer is needed to this question in a situation where communities hold legal title to land resources, but wildlife remains the prerogative of the State. Links and benefits are necessary to higher levels, such as district, region and Central Government. However, the main participants and beneficiaries in a sustainable programme must be the local community.

Since 1990, our two tourist safari companies have initiated three community-based conservation projects in areas adjacent to, and east of, Tarangire and Serengeti National Parks (NPs). These projects have received the approval of the Director of Wildlife, and are an attempt to combine business and community interests, with conservation as the underlying outcome. In these areas, rural expansion, increased charcoal production and mining, with associated illegal offtake of wildlife populations, have jeopardised the integrity of NP ecosystems. If these trends are not reversed soon, they will result in the loss of wildlife resource options in these areas. A particular cause for concern is the increasing isolation of Tarangire NP, given that its migratory populations of wildlife have used areas well outside NP boundaries (Borner, 1985).

Pastoral peoples living in these areas are under increasing pressure, as population densities increase due to convergent trends of loss of land area and population increase. Subsistence pastoral economies are no longer viable in many cases, and pastoral purchasing power in the market economy has deteriorated. Today, it costs about 200 steers to buy the same tractor that cost 30 steers in 1986. These pressures are forcing local people to seek alternatives. In most cases, the only locally perceived alternative is agriculture, the long-term viability of which is questionable throughout much of the area.

These three community-based projects are a small-scale attempt to set a precedent. The aim is to allow wildlife and natural resource conservation to become a part of the land use and resource options mix available to local communities. Indeed, it these very communities who are credited historically with custodianship of the most famous protected areas found in Tanzania (ole Parkipuny, 1996). This paper describes our projects in sections devoted to each of our two companies, and then draws some general conclusions.

2. THE DOROBO TOURS AND SAFARIS PROJECTS

2.1. ESTABLISHMENT OF THE PROJECTS

The official and legal basis for establishing two projects around Tarangire and Serengeti NPs by Dorobo Tours and Safaris depended on meeting two primary conditions. First, the approval and support from the Wildlife Department, as the Government body entrusted with overseeing and managing all wildlife related activities. Second, the procurement by the villages of legal title deeds for 99 years to their respective traditional land areas.

By the end of 1990, the villages had obtained legal title deeds. Informal discussions were initiated with village members, district officials, Members of Parliament, TANAPA community conservation officials, and many others relevant to the project. The positive feedback from such discussions was very encouraging and prompted the submission of a proposal to the Wildlife Department. The proposed project village areas were within existing tourist hunting concessions. For the projects to succeed, it was necessary for the Wildlife Department to excise these areas from the hunting concessions, to avoid conflicts between non-consumptive game-viewing tourism and hunting.

Because the proposed areas were small in relation to the entire hunting concessions, it was expected that the revenues generated from tourist hunting would not be significantly reduced. The response from the Wildlife Department was very positive and a letter of support to proceed with the projects was obtained.

The next step was to approach and present the projects formally to the villages, represented by the village governments. A series of meetings and dialogue with the village councils, culminating with open village meetings, *Mikutano ya hadhara*, resulted in legally binding use contracts with four villages. Three villages were in Ngorongoro District and they agreed to use of contiguous village lands totaling about 250 sq km adjacent to Serengeti NP. One village was in Simanjiro (then Kiteto) District, and it agreed to the use of about 120 sq km of village land adjacent to Tarangire NP. These areas were pre-selected by Dorobo as a starting point and then modified through dialogue with village councils. The areas were selected using the following criteria and justifications:

- the areas are suitable for marketing, with scenic and wilderness character fitting our client niche, offering walking and wilderness experience;
- the areas lack existing land use, such as agriculture, that conflict with wildlife conservation and enjoy minimal human impact. Both areas are critical for pastoral systems, but are peripheral to mainstream village activity and used only as grazing reserve and short term seasonal *roncho* use when environmental conditions dictate. The pressures from tourist hunting in the areas at that time were minimal;
- the areas are important components for the Tarangire and Serengeti ecosystems as evidenced by environmental monitoring data (eg, Borner 1985). Both projects assured land use for these areas that is compatible with the long-term integrity of these ecosystems;
- areas are on the village periphery, and are particularly vulnerable to pressures on village governments to allocate large scale farms to outsiders. For example, the months of dialogue preceding contractual agreement caused the Village Council to reallocate 48 sq km of potential farmland in the area next to Tarangire NP.

The size of the areas was determined by the foregoing criteria, but also limited by reluctance of village communities to include larger areas in a venture that was new and alien to them. By the end of the first year, the three villages in Ngorongoro District had requested enlargement of the project area. This request came because of the revenue generated, and because they recognised the potential of the project to secure their future land base. Adjoining villages, seeing the benefits, also requested at this time to be included in the project. Dorobo declined both of these overtures for two reasons. First, because of the need to keep the size of area commensurate with revenue generated by the relatively low volume, low impact approach. Second, to minimise interference with hunting operations in the general area.

2.2. CONTRACTUAL OBLIGATIONS AND CONDITIONS

Contracts agreed upon and signed by Dorobo and village governments are legally binding use agreements. Ultimate control remains in the hands of the village as title holders to the land. The contracts are for a period of 5 years, with a two year notice clause applicable to either party that wishes to break the contract.

Annual payments and visitor night fees are paid by Dorobo to the villages in return for exclusive control of tourist activities in the areas. The exclusive clause is controversial, but is a critical project component from a marketing perspective. The ability to control tourist activity is essential to guarantee a specific product saleable to prospective tourists. In this case, that product is an exclusive wilderness experience with an option of walking. This product was seen as being complementary to, rather than competitive with, the experience of wildlife viewing offered in the adjacent NPs. The majority of the itineraries offered include both types of experiences.

In addition, the following conditions were included as mutual contractual obligations:

- villagers may continue to use the areas for seasonal grazing, but no agriculture or permanent settlement is allowed;
- charcoal production, hunting and live bird capture are prohibited;

- Dorobo is not permitted to develop any infrastructure other than access tracks and campsites, the latter of which must be kept clean and free of litter; and,
- under the contract, Dorobo's activities in the areas are limited solely to those related to tourism and natural resource conservation.

2.3. PROJECT PLANNING AND IMPLEMENTATION

Once the Wildlife Department had approved the projects, planning emphasis shifted to the village level, where the final decisions on project go ahead and success rested. Active Wildlife Department involvement at this planning stage and during implementation would have been desirable *vis-à-vis* land use planning and community conservation guidelines. However, the low volume, low impact nature of the projects greatly reduced the need for their further involvement. Furthermore, it was evident from the dialogue process that local attitudes towards wildlife and wildlife authorities were rather negative. There were the following problems: perceived injustice in Ngorongoro Conservation Area; the lack of participation in, and benefits from, the hunting industry; and, the seasonal use of their grazing lands by National Park wildlife with no reciprocity or benefit. On a positive note, Community Conservation Wardens (CCWs) from both Serengeti and Tarangire NPs had supported the projects (Bergin, 1996). Through their discussions with the communities, CCWs helped visibly to thaw mistrust of wildlife authorities by local communities.

Once the projects had been mutually agreed, village leaders and Dorobo representatives went to the respective districts to obtain approval. There was some resistance at district level, because they felt that villages had usurped powers that were rightfully of the District Council. There was also some hesitation towards accepting the projects due to lack of a clear central policy. However, the projects were accepted eventually by District Councils as village revenue generating and conservation projects.

Project success in the longer term hinged on widespread community recognition and realisation of benefits. Dorobo attempted to walk the fine line between ensuring suitable use of funds without dictating their use. Thus far, clearly defined and visible village priorities, such as village truck, borehole rehabilitation, office building, have helped to avoid or at least minimise misuse of benefits. However, there is no question that a well-trained CCW greatly facilitates and discreetly directs suitable use of benefits.

Monitoring of visitor nights was done through occasional spot checks by villagers using the areas. In reality, the records by Dorobo were the main source of information. Both parties recognised that mutual trust and a desire to make the project work were essential ingredients.

Village scouts were selected by the village and hired by Dorobo to watch over the areas. Scouts reported back to the village and Dorobo, any activities contrary to the project agreement. While this is a useful and workable system, there have been problems related to the lag time in communication. For example, by the time information is received, it is often too late to act.

2.4. PRESENT STATUS AND FUTURE PROSPECTS OF THE PROJECTS

Both projects continue with strong village support. However, they are threatened because of a conflict with tourist hunting in the areas. The initial support from the Wildlife Department has not been followed up with action to resolve the conflict with tourist hunting, despite requests from ourselves, village, and district authorities. Unless the follow-up support is forthcoming, these projects are doomed to failure.

3. OLIVER'S CAMP COMMUNITY-BASED CONSERVATION INITIATIVE

3.1. ESTABLISHMENT OF THE COMPANY

Oliver's Camp Limited is a self-financed, commercial tourist operation that actively promotes community-based conservation and that started operations in October 1992. Eight years of experience in tourism in Arusha prompted concern for the future of Tarangire NP and its eastern wildlife dispersal zone, known as the Lolkisale Game Controlled Area (GCA) (Borner, 1985). The goal of Oliver's Camp was to develop a new tourist product and have a positive impact on conservation. Oliver's Camp aimed to stay clear of developed areas, and to offer a wilderness experience to clients and visitors. A plan was presented by Oliver's Camp to the three villages of Loboit Soit, Emboreet and Loboit Serret, and also to the Wildlife Department. Both Oliver's Camp and Dorobo Tours and Safaris were thinking along similar lines (see section 2), so the proposals

were presented jointly. Our semi-permanent camp was to be sited for ten months of the year in one area. Dorobo Tours and Safaris planned to use another area to the south, as part of their mobile wilderness camping safaris.

Oliver's Camp proposed the following:

- a core *Wilderness Conservation Area*, within Emboreet village area for our Base Camp, from which to conduct one day walking safaris. This base area would need to be 20 sq km in size, or 2% of the GCA. In return for such an area, the proposal provided a per tourist per day payment to Emboreet Village. These payments were called *Wilderness Conservation Fees*, which were to be collected by us and paid every two months to the Village Council;
- both to Loboit Soit and Emboreet Villages, it was proposed that a larger area of jointly 320 sq km be called an *Activity Area*. This area would allow longer walking safaris to be conducted and provide solitude for our clients in a wilderness setting.

By using both Tarangire NP and our *Wilderness Conservation Area*, Oliver's Camp aimed to encourage a deeper understanding of this ecosystem and a longer stay. The combination of wildlife viewing from a vehicle with some wilderness walking is currently becoming the most popular type of photographic safari. Both the *Wilderness Conservation Area* and the *Activity Area* would provide payments to both villages, if the following conditions were met:

- the *Wilderness Conservation Area* could not be grazed by domestic stock (except in times of real need);
- neither area could be farmed, burned, nor trees cut for charcoal production;
- village members would discourage the harassment of wildlife and assist in investigations if poaching of animals again became a problem. Lolkisale GCA and Tarangire NP have suffered extreme poaching pressure in the past 15 years, mainly of rhinos, sadly now vanished, and of elephant; and,
- the villages would, however, retain all grazing and water rights to the *Activity Area*.

Support was received from the Director of Wildlife, and Oliver's Camp was instructed to proceed with finalising local agreements with Village Councils. The Loboit Soit village continued to use farmland within the GCA next to the NP boundary, and did not initially enter into any agreement with Oliver's Camp. Emboreet village received the Wildlife Department letter with pleasure and Oliver's Camp started a series of meetings with the Village Council. An initial short-term agreement of six months was reached, and operations started in October 1992.

For one whole year, a series of meetings was held with Emboreet Village Council. One meeting was held with Kiteto District Council and four visits were made to the Director of Wildlife in Dar es Salaam. Oliver's Camp financed all these trips, meetings and fees from commercial activities. Throughout this period of negotiations, the *Wilderness Conservation Fees* were still paid to Emboreet village, despite not having a long-term signed agreement on this area. The agreed fee was in Tanzania shillings and equivalent to US\$ 12 per person per day. A considerable amount of time, energy and money were put into these endeavours, and the message was always pressed home that fees paid are to conserve land and wildlife.

Oliver's Camp worked only with the village of Emboreet from October 1992 to November 1994. However, the actual siting of the base camp caused conflict between Emboreet and Loboit Soit villages that led to a series of meetings between Oliver's Camp and the two villages. After exhaustive discussions it was decided that land from both villages was being utilised. The boundary between these two villages had never been formally decided. However, Loboit Soit then decided to join the project and insisted on a share of the revenue generated. This resulted in a new contract being signed by all three parties in 1994. A five year agreement provided both villages with an equal share of the US\$ 12 fee collected from visitors.

3.2. PRESENT STATUS AND REVENUE GENERATED

Initially the Director of Wildlife stated that our larger activity area would be excluded from the hunting block and that the Department would inform the hunting operators. The Director asked us to follow this up directly with the hunting company (see section 3.3).

An agreement was finally signed between Emboreet Village Council and ourselves in November 1993, but only on the *Wilderness Conservation Area*. Signing an agreement on the larger *Activity Area* was not popular, simply because by then the village wanted to farm parts of it. Oliver's Camp insisted that fees were meant to conserve a larger area than just the *Wilderness Conservation Area*. It was agreed verbally that no farming would take place on the migration routes to the Simanjiro Plains and that no wildlife would be harassed in any way. Presently no farming has taken place and Oliver's Camp is still hopeful of reaching an agreement on the larger area by promoting longer walking safaris to increase revenue. The signed agreement gives Oliver's Camp a 33 year lease on the *Wilderness Conservation Area* and permission to conduct walking safaris in the *Activity Area*. The long-term agreement has made Oliver's Camp feel more secure about investing time and money, and given us a relationship with a future.

The Village Council meeting generated concern over how the *Wilderness Conservation Fees* were to be paid, while Oliver's Camp was concerned not to turn these payments into an internal village problem. Therefore, it was agreed to open a Bank Account in Arusha into which fees would be paid. Several members of the Village Council were elected to sign on behalf of the community. Three or four senior council members could then draw funds, only after a full council meeting had decided to which project these funds should be allocated.

From October 1992 to December 1993, Tsh 3,232,280 (the equivalent of US\$ 8,900) have been collected from visitors and paid to Emboreet village members. These funds have been spent on: mending and maintaining the village borehole and water pump; improvements to the village school; traveling expenses for council members to District Offices and Dar es Salaam on village business. Due to the continuing drought in this part of the country, funds have been increasingly spent during the past few months on the purchase and transportation of maize. This food is keeping people alive, and the drought has had a disastrous effect on the general health of the Emboreet community.

In addition to these fees, Oliver's Camp has generated additional revenue for Tarangire NP. All visitors to the Oliver's Camp and Emboreet Wilderness Conservation Area pass through the NP and have game drives inside the NP. Therefore, 99% of visitors staying with Oliver's Camp pay both NP Fees and Wilderness Conservation Fees. All our supplies come to camp via the NP as well, so Oliver's Camp pays TANAPA fees to supply camp.

From October 1992 to December 1993:

- fees to TANAPA from our visitors were approximately US\$ 8,500; and,
- fees to TANAPA to supply the camp were Tsh 815,120 (the equivalent of US\$ 2,200).

Oliver's Camp also pays an annual TALA Licence of US\$ 5,000, totaling \$ 15,000 since beginning operations. The TALA fees are high for a small, newly opened operation, especially as Oliver's Camp pays the same as a tour company operating with 100 vehicles compared with our five. Hence, the TALA Licence fees restricted our advancement initially. We recommend that they should be levied on turnover or on size of operation, for example on number of vehicles. However, our business is now increasing and many overseas agents, safari specialists and conservation minded organisations support our efforts.

3.3. WORKING RELATIONSHIP WITH TANAPA AND NEARBY HUNTERS

Our base camp and its *Wilderness Conservation Area* comprises less than 2% of the land area of Lolkisale GCA. The surrounding *Activity Area* is still hunted by one operator, from a camp that is 500 m from the boundary of Tarangire NP. The idea of buffer zones has been talked about for years, but a useful solution has yet to be worked out. Initially the Wildlife Department stated that the larger *Activity Area* would be excluded from the Lolkisale GCA hunting block, to ensure that there would be no conflict of interest. As the hunters were not informed of this change, we visited them to explain.

A verbal agreement to liaise with us and not hunt in the 20 sq km *Wilderness Conservation Area* was the result. We also agreed to coordinate our activities in the larger *Activity Area*, in order to avoid meeting in the field. So far, no real conflict has occurred since the start of our operation. Large male carnivores whose trust had been gained were now easier for the hunters to locate, so a few have probably been taken by hunters. However, that situation happens along the boundary of

every NP. Hunters only camp seasonally in this area and benefit from the year-round presence of Oliver's Camp, whose presence is known locally and deters poachers. Oliver's Camp also patrols the larger *Activity Area* on a regular basis. Elephant presence outside Tarangire NP has increased tremendously since 1994. This relieves the pressure on the NP and will allow elephants to continue their increase within the Tarangire ecosystem.

TANAPA has been supportive from the start, and our relationship has been one of mutual respect. Placing tourist facilities on the edge of NPs is commensurate with TANAPA policy. The operation of Oliver's Camp is felt to be specially beneficial, as the camp provides a year round, community-sensitive operator presence in a remote area that was once heavily poached. The management of Tarangire NP has embarked upon a vigorous Community Conservation awareness programme and has helped villagers with building projects (Bergin, 1996).

4. CONCLUSIONS

4.1. VIEWS ON COMMUNITY-BASED CONSERVATION

A number of camps, lodges and photographic operators now use GCAs and open areas throughout Tanzania. The Mto Wa Mbu area has two camps, one surrounded by people. Many camping companies operate safaris that travel and camp in the Lake Natron GCA, in wildlife areas north of Arusha and other wilderness area. It is strongly recommended that these operators should involve village councils and pay appropriate fees directly to these councils. This will help ensure that village land remains in a good condition, which is in the long-term interests of the operators. If GCAs and open areas continue to be used by hunting companies and photographic operators without any financial gain at the village level, how can we expect these villages to conserve the very resource that operators are utilising?

Our companies applaud the current efforts of the Wildlife Department, TANAPA, NCAA, conservation organisations and private individuals in trying to create a future for community involvement in conservation. Our companies believe that game-viewing tourism can and must diversify in Tanzania, in order to attract more visitors to utilise more areas. In order to have areas to utilise, the conservation message must be communicated to villagers. Wildlife authorities and operators must understand village problems. Despite the large size of Tanzania, current population pressures on wild land are too great to ignore.

Totally protected areas like NPs and GRs are surrounded for the most part by GCAs or open areas. Local and outside farming interests, whole communities, hunting concessions and photographic tour operators, are already well established within these areas. Therefore, GCAs and open areas are more problematic to manage, and can be lost totally to wildlife. Viable and dynamic migration routes still cross many such areas. Farming of land that currently supports livestock and wildlife is only viable if those farming techniques are productive enough on a yearly basis. These areas are certainly not viable if they only produce one, two or ten years of production and leave the land exhausted and laid to waste afterwards. In one sense, the wildlife resource in GCAs and open areas is already in village hands, because they control the land. It no longer appears appropriate to have that land under the control of a non-compensated society, and the wildlife under the control of a fee-charging Government body. The land will be lost to wildlife, which in turn means no more income for the Government. This represents a national loss that is now happening fast.

4.2. SOME IDEAS, AND PERHAPS A WAY FORWARD?

Keeping things simple is an obvious start to this problem, and some ideas are advanced for consideration. Practical details could be worked out if such ideas gained support.

Totally protected areas such as NPs and GRs could channel a percentage of their earnings to District Councils, in exchange for assurances that the councils will help to protect these areas. District ranger forces could be financed by this revenue. TANAPA and the Wildlife Department could dispute payments if Districts do not uphold their agreed responsibilities. Furthermore, Districts could set up an educational unit to spread the word. But the word is not enough. Funds must filter down to the villagers themselves. Districts could identify which villages should benefit, simply because they are close to the protected area concerned. Districts would then pass down a high percentage of funds to individual villages. If a poaching incident occurred in one particular village area or within the protected area, close to that village, the village would lose its monthly income until the incident had been investigated and culprits prosecuted.

GCA and open areas form a patchwork of conflicting interests. Therefore, a different system **should** apply. Each operator, whether hunter, photographic, camping, or lodge, could liaise with the village(s) in which they operate and agree on exchanging fees for conditions on that land. Identifying the resource area that the operator needs is the first step. Encouraging the village to protect the very resource that creates income, is the goal. A village may wish to farm an important wildlife area but find that no funds are generated by an operator, simply because no operator is active. In this situation, a donor conservation organisation could fill the gap and encourage an operator to take over at a later date. If the village itself is not interested in the conservation of that area, the area will be lost. Yet, the Wildlife Department still collects trophy fees in such areas and advises villages on their resources, the land and therefore the wildlife.

A diversity of wildlife experiences or activities should be actively promoted in Tanzania. This diversity will increase total revenue capacities, promote community-based conservation, and encourage different types of visitors to the finest wildlife area in the world. Currently, many people travel through GCAs or open areas, view wildlife and do not pay fees to the Wildlife Department. Camps situated in such areas, surrounded by farms or villages, drive a few miles and watch wildlife, again without paying fees to the Wildlife Department. Why not ask operators to protect their own long-term income by protecting their own interests within village areas?

Totally protected areas are designated, and collect fees at their gates. GCAs and open areas are also village lands, and the village should receive fees from operators that use that land. If the village decides to farm that land, the operator moves out, and community-based conservation in that area ceases, with no more income for either the Wildlife Department or the hunter. Our companies hope that others will follow our lead in paying both TANAPA fees, and the equivalent of Wilderness Conservation Fees, that our companies have volunteered to villages in exchange for long-term agreements. The projects outlined are potential models for community-based conservation applicable to pastoral communities. The Tanzanian Government and the prevailing political structure considers villages as the lowest common denominator. Hence, individual village projects should ideally be linked within a larger land use system and under a common community-based conservation policy.

A community-based conservation policy would then allow a more active programme of community-based activities to provide the incentive for local level acceptance and participation in land use planning. Present land pressures and politically limited options suggest that community-based conservation projects linked to land use are vital. Such projects will provide the only hope for intact NP and GR ecosystems, and for sustainable wildlife use in GCAs and open areas in the future.

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PART 4

CASE STUDIES IN COMMUNITY-BASED CONSERVATION AROUND AFRICA

19. THE EVOLUTION OF ZIMBABWE'S COMMUNITY-BASED WILDLIFE USE AND MANAGEMENT PROGRAMME

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1. PREFACE

This paper outlines the evolution of Zimbabwe's community-based wildlife use and management programme. It is important to understand the basic premises and objectives of Zimbabwe's policy on community-based wildlife use and management. This understanding may be fragmented by a purely thematic treatment. Equally, the dynamic evolution of this policy and its application may be missed in a thematic approach that tends to static description. Therefore, section 2 provides a brief analysis of this policy and its development over time as a background for what follows. The remainder of the paper follows a thematic outline, except on points where the Zimbabwean experience has little contribution to make.

2. ZIMBABWE'S CAMPFIRE PROGRAMME

Zimbabwe's community-based wildlife use and management policy is actualised in its CAMPFIRE Programme. The acronym stands for *Communal Areas Management Programme for Indigenous Resources*. The Programme therefore applies to the areas of the country under communal tenure conditions as opposed to private land or land under direct state management, such as the Parks and Wildlife Estate (P&WLE). Equally and importantly, CAMPFIRE has grown out of, and is integrated into, general national policy on wildlife resources.

2.1. POLICY AND LEGISLATIVE FRAMEWORK

Zimbabwe's policy on wildlife outside the P&WLE is embodied in the Parks and Wild Life Act (1975), which conferred *custodianship* of wildlife on their land to the *owners or occupiers of alienated land*. The philosophy of the Act contained insights on the use and management of wildlife that can be summarised as answers to the questions: what? who? and, why?

What basic insights? That in certain ecological contexts, wildlife can be the most environmentally sound and economically productive form of land use.

Who should manage? That the State does not have the resources to manage wildlife everywhere in Zimbabwe and the most effective managers of wildlife are the people who live with it and pay for the costs of its existence.

Why should they manage effectively? That people who live with wildlife will only use and manage it sustainably when there is an economic motivation to do so, and when they have secure rights to manage and reap the full rewards of their capital and management inputs.

These insights informed the policy behind the Act, which had the effect of making farms and ranches into proprietorial wildlife units, combining ownership and management with cost and benefit. Zimbabwean experience since 1975 has clearly demonstrated their validity. Wildlife populations have increased on farms and ranches and the wildlife industry in Zimbabwe has boomed. However, there was a major defect in the 1975 Act. Enacted during the UDI era, it conferred proprietorship (or *Appropriate Authority*) over wildlife only to the largely white farmers and ranchers. Small-scale black farmers, many of them living in the under-developed but wildlife-rich periphery of the country, did not receive the privileges and benefits of the Act. This was clearly discriminatory. In 1982 Government amended the Act, allowing the Minister to appoint a rural District Council *to be the Appropriate Authority for such area of Communal Land as may be specified* (Section 95 (1)). The purpose of this amendment was to eliminate discrimination between farmers on private and communal lands, and to extend the demonstrated economic and environmental benefits of the Act to communal land farmers. It was an important legal step forward, and formed the legislative springboard on which the CAMPFIRE Programme was subsequently developed.

2.2. DEVELOPMENT OF CAMPFIRE

Although a permissive legislative framework was provided in 1982, the development and implementation of the CAMPFIRE Programme took several years. It was only in late 1988 that two District Councils were first granted *Appropriate Authority* status. At the beginning of 1990,

10 further District Councils were gazetted, and a number of other District Councils are shortly to be conferred with *Appropriate Authority* status. CAMPFIRE can be judged a success at the level of the District Council, and annual wildlife revenues have risen to US\$ 300,000 to 500,000 per council in some instances. Experience has shown that the essential institutional profile providing success comprises the tight proprietorial unit, combining ownership and management with cost and benefit. However, experience has also shown that replication of this essential profile poses a number of problems in the communal land context. Among these are:

- the tenure situation of communal land farmers is less secure. As a result, they are more vulnerable to planning and regulation imposed from outside their communities;
- the appropriate proprietorial units analogous to farms and ranches are communities of collective interest. As a result, management is more complex;
- legally these communities still do not have *Appropriate Authority*. Instead, this has been granted to councils, which are large, heterogeneous administrative units rather than units of production. Wildlife production comes from their sub-units, or some of them. These are the units that parallel farms and ranches, but they do not have the same position in law regarding the proprietorship of wildlife. Thus a legal discrimination between private farmers or ranchers and communal land farmers still persists in regard to wildlife;
- in this legal context, it is not surprising that councils have been tempted, as the delegated legal authorities over wildlife, to appropriate the revenues of their constituent producer communities for their own purposes. This merely replicates at the council level the extractive practices of the pre-CAMPFIRE, colonial government. Hence, Zimbabwe has been operating in an ambiguous situation, the law saying one thing and its policy demanding another.

2.3. BRIDGING GAPS BETWEEN LAW AND POLICY

As an interim measure, Government has tried to bridge the gap between law and policy by persuasion, indicating that it is Government's expectation that councils will further devolve their *Appropriate Authority* status to communities. In July 1991, the Minister of Local Government stated that the Government was satisfied that district councils were well placed to manage wildlife on their own lands provided that four conditions were met. These were that:

- benefits are returned to the producer communities, that is the people living with the animals in the respective area of the village, or ward;
- the producer communities decide for themselves how to allocate these benefits;
- that as much money as possible is ploughed back to the producer communities. This means that councils must institute effective management systems that eliminate excessive bureaucracies and overheads; and,
- that council and other management committees are responsible to the people they represent.

As a guideline to the implementation of CAMPFIRE in this ambiguous legal situation, the Department of National Parks and Wild Life Management (DNPWLM) issued recommendations on revenue distribution according to the following formula (see Figure 1):

- up to 35% of revenue to be retained for wildlife resource management by the district council's wildlife management agencies;
- a minimum of 50% of revenues to be distributed to wards; and,
- 15% of gross revenues to be retained by district councils as a levy.

The last was, in effect, a 15% district council tax on producer community wildlife revenues.

Under these interim legal and programmatic arrangements, the record of the CAMPFIRE Programme has been mixed. Too many councils have ignored Ministerial directives and DNPWLM guidelines. Among their failures, councils have: appropriated the bulk of the revenues generated by their producer communities; broken promises of revenue distributions to communities; marginalised any community participation in wildlife planning and management; created hypertrophied district-level wildlife management; 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 CAMPFIRE's principles, but the result of a lack of proper implementation.

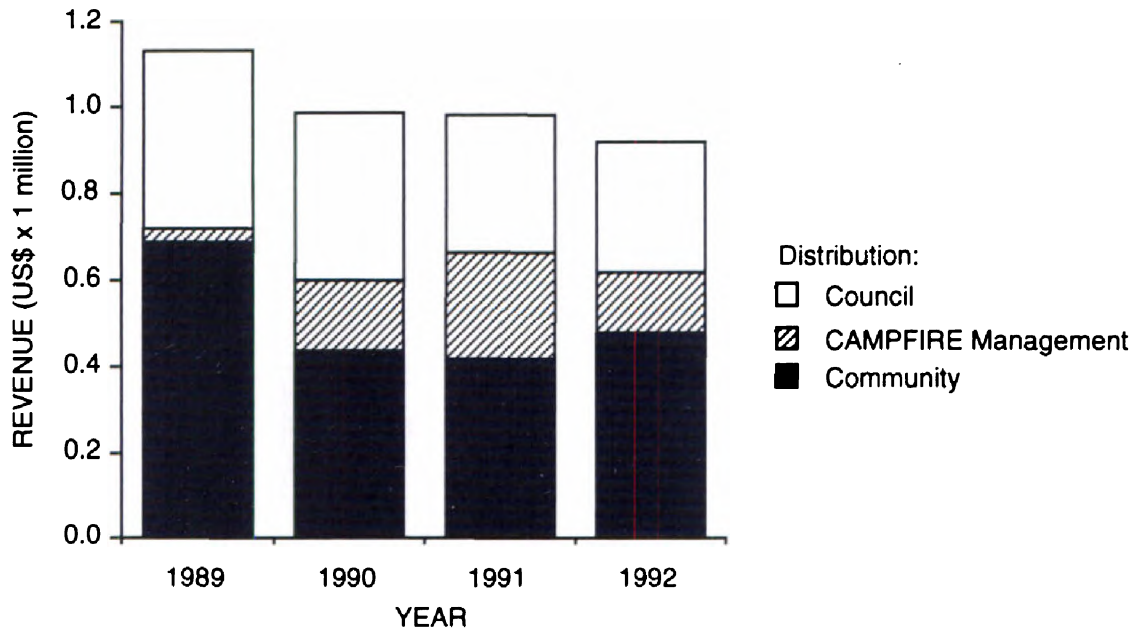


Figure 1: The distribution of revenue from CAMPFIRE from 1989–1992 (in US\$ x 1 million)

Fortunately, there are also examples of district councils that have understood the dynamics of CAMPFIRE. These councils have taken Ministerial directives seriously, and have genuinely promoted proprietorial devolution to producer communities. Where this has been implemented in communities over a period long enough for us to make informed judgments the following results are discernible:

- a re-awakened appreciation of the value of wildlife;
- poaching eliminated or drastically reduced;
- fewer complaints of problem animals;
- the emergence of local environmental management structures;
- improved environmental conservation practices;
- the use of wildlife revenues for food security in times of drought;
- the local initiation of land use planning;
- an increase in household revenues;
- community-funded local development for schools and clinics; and,
- grinding mills and other community infrastructure.

2.4. SUMMARY OF SUCCESSES RELATIVE TO THE TANZANIAN SITUATION

The following aspects of the CAMPFIRE Programme must be kept in mind in terms of any applicability that the Zimbabwean experience may have for Tanzanian policy:

- CAMPFIRE is not solely a conservation programme. It is a land use programme that seeks to combine rural development with sustainable wildlife use and promote the wildlife industry in appropriate ecological contexts (see 2.1);
- CAMPFIRE seeks to devolve the management of wildlife resources outside the P&WLE in recognition that the state itself does not have the resources to do so (see 2.1);
- this devolution of management is linked to the devolution of benefit through full proprietorial status for wildlife producer units. It is not essentially a scheme of *revenue sharing*, *participation* or *park/people relationships*, although obviously it has implications for such goals (see 2.1);

- it assumes that, under communal tenure conditions, the creation or re-emergence of communal property rights regimes is possible. Such regimes are to be the proprietary units for wildlife analogous to farms and ranches (see 2.2);
- the creation of such communal property rights regimes has been difficult and performance mixed, due to legal and institutional issues (see 2.2 and 2.3).

In retrospect, the following stages can be traced in the evolution of Zimbabwe's CAMPFIRE Programme:

- **1975–1987:** Devolution by the state of the use and management of wildlife to private landholders. At the same time, communal land wildlife resources remained under state control, and revenues were returned in part and at the state's discretion to communal land residents;
- **1988–1992:** Similar devolution by the state was extended to selected district councils, and revenues accruing to district councils were similarly returned in part and at the council's discretion to wildlife producing communities;
- **1993>:** Increasing pressure for formal devolution of proprietorship over wildlife to sub-council, community proprietary regimes.

3. LAND USE

3.1. SYSTEMS OF LAND TENURE

Zimbabwe's land (and water) surface is under three primary categories of land tenure: State land (largely the P&WLE and Forestry Commission Estate), private agricultural land and communal land. It is the third of these that is the focus of this paper.

Technically state land, tenure in communal land by its inhabitants is held by rights established traditionally or by immigration. Hence, tenure is essentially usufruct in nature, with the right of use but not legal title. In practice households establish or receive from local authorities (traditional or modern) heritable rights to residential and arable lands. Rights to off-farm natural resources, such as grazing and woodland resources, are communal. Thus, they are regarded as *common pool* resources belonging to a collective group defined on the basis of a combination of traditional and modern criteria (see 3.2 below). Certain natural resources (commercial timber, minerals and wildlife) are considered as state resources, although under the CAMPFIRE Programme wildlife resources in certain districts are now legally under council proprietorship (see section 2).

3.2. UNITS OF MANAGEMENT

Communal lands in each of Zimbabwe's 56 districts fall under the administration and jurisdiction of a District Council (now Rural District Council). These district councils have legal jurisdiction over all resources in communal lands not claimed by the state. Furthermore, they have powers to: allocate land; create development and land use plans; generate revenues from communal land resources and enter into contracts with the private sector; and, to create by-laws on conservation and other concerns. Councils are composed of elected councillors from their constituent wards and have a chairman elected from their membership. They employ a professional Senior Executive Officer and other employees as required. They are advised by a District Administrator, whose primary function is to coordinate Government line ministry activities in the district. Councils and district administrations fall under the Ministry of Local Government.

The lowest legally recognized sub-unit of a council is the Village Development Committee, or VIDCO, putatively comprising 100 households. The VIDCO has demarcated boundaries and has certain adjudication and planning functions, but no legal authority over its resources. The VIDCO is an elected committee, presided over by a VIDCO Chairman. The next tier of local government is the Ward Development Committee, or WADCO, comprising 6 VIDCOs and thus putatively comprising 600 households. The WADCO is chaired by an elected councillor who represents its interest on council. WADCO duties and powers are similar to those of the VIDCO, but on a larger, collective scale. The council and sub-council local government structure is shown in Table 1.

The following points on this local government structure are important in relation to community-based conservation:

- the structure is a modern imposition, filled with elected representatives. Traditional leadership may or may not be incorporated by the elective process;
- delineation of VIDCO and WADCO boundaries does not necessarily correspond to traditionally evolved communities, nor to ecologically discrete criteria;
- in practice population sizes of VIDCOs and WADCOs vary considerably. Correspondingly, the spatial extent of VIDCOs and WADCOs vary. In some instances small human populations are located in large spatial ward boundaries (eg, Kanyurira Ward, Guruve District, with 120 households in 400 sq km of land). Not surprisingly, these are typically the wards with poor agricultural potential and large wildlife populations;
- councils typically preside over areas that are ecologically heterogeneous, with wards of high human density and low wildlife populations combined with wards of low human 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 pertains.

Table 1: Local government structures in Zimbabwe

Structure	Membership
DISTRICT COUNCIL	15 to 30 councillors depending on number of wards in district
WADCO	6 VIDCOS
VIDCO	(100 households)

The implications of this structure for the development of communal proprietary regimes over wildlife are discussed below.

3.3. EXISTING AND PROPOSED LEGAL MECHANISMS FOR LAND AND RESOURCE TENURE

The CAMPFIRE Programme seeks to establish proprietary communal property regimes over wildlife and other natural resources (see section 2). The definition of a community is problematic, and the number of relevant variables so diverse as to render a *blueprint* model of an ideal communal management regime difficult (Hasler, 1993). However, the following characteristics are necessary components in a communal property regime:

- scale (both demographic and spatial) must be small enough to provide conformity to rules largely by informal peer pressure;
- costs and benefits must be relatively evenly distributed among members; and,
- sanctioned authority, linking responsibility to control capacities, must be present (Murphree, 1993a).

Measured by these criteria, the current local government structures in Zimbabwe (see 3.2) are clearly a poor vehicle for the development of communal property regimes under current legislation. Regarding scale, the *Appropriate Authorities* (District Councils) are too large to exert informal control, and their controls are necessarily bureaucratic. Regarding the costs and benefits of wildlife, these are distributed unevenly at the council level. Regarding authority, this is vested in the District Council rather than the on-the ground de facto resource managers.

This disjunctive between local government structures and CAMPFIRE objectives (see 2.3) has led to an uneven performance in the Programme. Successes have only been evident where district councils have been willing to devolve their authority to sub-district levels. Proposals are now being considered to change the legislation, changing section 95 (1) of the Act to allow the Minister to *appoint a rural district council, or any properly constituted sub-unit thereof to be an Appropriate Authority.*

The properly constituted sub-units of rural district councils would be WADCOs or VIDCOs. This still links the proprietary communal resource management regimes with the structures of local government, which may not be ideal on ecological or social grounds. However, it has the

advantage of carrying forward the CAMPFIRE Programme within accepted structures of local governance. The effect is to make the unit of local governance (WADCO, VIDCO) coincident with the communal natural resource proprietorial regime (basically a unit of management and production).

Tanzanian legislation on local government appears to be more facultative on this point than Zimbabwean legislation. In Tanzania the village, as a local government structure, can apply for title to its land once this has been surveyed and demarcated (Sandi, 1996; Planning and Assessment for Wildlife Management, 1996). This would create the land tenure status necessary for a sanctioned wildlife proprietorial regime. A combination of Tanzanian legislation on the granting of communal land title and Zimbabwean legislation on the devolution of *Appropriate Authority* status over wildlife might benefit both countries.

3.4. COMPATIBLE AND INCOMPATIBLE USES

In principle, the approach of creating tight, integrated units of wildlife proprietorship is compatible with the management of other common pool natural resources (grazing, fisheries, woodlands). In practice, its compatibility varies according to the nature of the resource concerned, the local economy, local demography, marketing considerations and ecological factors. These variables create different configurations of compatibility in given contexts.

CAMPFIRE, as the acronym suggests, is a programme for all natural resources. However, it has been 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 served, nationally and in the long run, by attempting to enforce its existence in contexts where local farmers and government agencies know that it is a sub-optimal economic use of the land.

The use of woodland and fishery resources are most compatible with the wildlife use components of CAMPFIRE. These resources are easily integrated into a communal property rights regime in most instances. For example, plans are now well developed in the CAMPFIRE Programme to incorporate artisanal fishing on Lake Kariba into riparian community proprietorship through the demarcation of ward fishing grounds. The management of grazing resources for livestock is also compatible with the approach, veterinary considerations permitting. One exception to this appears to be the instance of transhumant pastoralism. This occurs only in the south-west of Zimbabwe, where conflicts between fixed proprietorial units and transhumant pastoralists are incipient. One possible approach is for proprietorial units to raise rents on seasonal grazing by outsiders equal to any opportunity costs involved.

The issue of stock losses to wildlife is of great importance. Conflicts between arable agriculture and wildlife use can clearly be expected, and indeed many of the problems encountered in the implementation for CAMPFIRE revolve around this. In the CAMPFIRE experience four basic modes of response to this problem can be discerned:

- compensation by district councils to farmers concerned by crop or livestock losses;
- problem animal control, by game guards, DNPWLM staff or safari operators;
- technical approaches, such as electric fencing to separate wildlife from arable and residential areas; and,
- communal responsibility in integrated cost/benefit accounting.

These responses can be used in combination: none are mutually exclusive except the first and the last. In the Zimbabwean experience, compensation has been the most ineffective. Accurate estimation of losses is almost impossible to implement at this distance and farmers are invariably dissatisfied with the results. Furthermore, this approach essentially contradicts the communal proprietorship principle. Problem animal control is probably necessary in certain circumstances, but involves wastage. Some experiments in CAMPFIRE have been made by involving safari operators and selling problem animals to clients, but this has its logistic problems and operators may be tempted to take trophy rather than problem animals. Technical approaches show considerable promise and often have the advantage of stimulating local-level land-use planning. Community responsibility is clearly the most effective, but requires that the community receives wildlife revenues in excess of the costs of livestock and crop losses. If this is the case, communities can

regard crop and livestock losses as an input cost and out of their revenues provide compensation to individual members based on informed, on-the-spot estimations. The CAMPFIRE experience has some examples of the success of this approach. Communities with high wildlife revenues, and living in areas of high wildlife densities, rarely report problems with animals.

3.5. THE ROLE OF LAND USE PLANNING IN RESOLVING CONFLICTS

CAMPFIRE experiences have provided one major lesson on land-use planning. When imposed on communities, it produces conflict. When undertaken by the community, it reduces conflict. Land use planning by the community reinforces a sense of proprietorship, is usually based on better information than that available to outside agencies, and reflects community priorities. These are the ingredients of long-term sustainability for the plans and the resources to which they relate.

Two caveats must be added to the above. Firstly, informed land use planning requires the community to have some grasp of the value of its wildlife resource. Secondly, communities require technical assistance, particularly where new technologies such as tourism or safari hunting are involved. What is therefore required is a dialectic process of inputs and adjustments between the community and external agencies, always giving priority to community perspectives. Where this has been done, the CAMPFIRE experience has shown both planning ability and flexibility on the part of communities. Failure to institute the process is a recipe for conflict and community withdrawal.

The issue of immigration and local land use planning is taken up below (see section 6.3).

4. ESTABLISHING AND MANAGING THE CAMPFIRE PROGRAMME

4.1. PURPOSE AND DEFINITION

A brief over-view of the objectives and history of the CAMPFIRE Programme has already been provided in section 2. The following points should be noted:

- within the overall objectives of the conservation of Zimbabwe's wildlife resources outside the P&WLE, CAMPFIRE has the specific goal of promoting this objective through making wildlife a competitive form of land use in appropriate contexts. It thus marries conservation and economic, rural development objectives;
- CAMPFIRE relies on the development of local proprietorial regimes. It is thus a programme for the development of local empowerment and governance;
- several years elapsed between initial conceptualisation and initial implementation in 1988. Since that time, CAMPFIRE has continued to evolve in a process of *adaptive management*. The following sub-sections pursue the implications of these points.

4.2. INITIATION

The long start-up time was partly the result of bureaucratic inertia. However, in large part it was required for the process of dialectic between communities and external agencies (see 3.5). This is an inevitable cost of developing a *bottom-up* programme. Given the central importance of community participation from the outset, it is a cost that must be accepted.

The delay was also caused by a lack of capacity in DNPWLM to implement and initiate CAMPFIRE on its own. Clearly CAMPFIRE is simultaneously a conservation programme, a rural development programme and a local governance programme. Thus DNPWLM recruited the assistance of:

- the Centre of Applied Social Science (CASS) at the University of Zimbabwe to provide socio-economic and institutional surveys and to act as a monitoring and evaluative unit;
- the WWF Multi-species Animal Production Systems (MAPS) research unit to provide ecological and economic research; and,
- the Zimbabwe Trust (ZT) to provide training and assistance in local institutional development.

DNPWLM also created its own CAMPFIRE Unit to channel its own limited resources into the Programme.

The agencies recruited to assist in CAMPFIRE each have different primary foci. CASS is centrally interested in issues of local governance over natural resources; WWF is primarily a conservation organisation; and ZT is primarily a rural development NGO. Coordination between the three and DNPWLM was therefore critical and a Collaborative Group of the four was established, chaired initially by DNPWLM.

Over time this coalition has been remarkably successful. An evaluation undertaken in December 1993 of the Matebeleland NRMP component of CAMPFIRE commented: *Thus, successful implementation of the NRMP required that three very different interest groups worked together effectively and in a coordinated manner, keeping the specific purpose of the Project firmly in sight. It is a tribute to their commitment and determination that they have managed to do so with little serious conflict and with mounting success.*

Beyond *commitment and determination*, their successful collaboration could also be attributed to the fact that all these agencies were essentially Zimbabwean in personnel and perspective, with primary accountability to Zimbabwean constituents. Furthermore, their different objectives of conservation, rural development and local empowerment found common cause in the Programme. Finally, the Collaborative Group was small enough in membership to allow close and constant contact.

The rapid geographical expansion of the CAMPFIRE Programme caused district councils with *Appropriate Authority* status to form themselves into a CAMPFIRE Association. The Association had the objectives of lobbying for their interests at central government level, providing coordination and providing services to their members. The Association was incorporated into the Collaborative Group. In 1992, the Association was made the lead organisation and chair of the Group, on the grounds that it had the central mandate to represent producer communities in a programme that was community-based. This represents a further significant shift in the formal leadership of the Programme nationally away from a government agency to the councils and communities concerned, with DNPWLM accepting more of an extension role. In proactive terms, this shift is still evolving.

The rapid expansion of the Programme has made it impossible for CASS, WWF and ZT to service all districts and communities involved. The Collaborative Group recognises this and does not wish to retain a monopolistic collective role in servicing the Programme. Thus, the Collaborative Group encourages councils and communities, when appropriate, to access the services of other NGOs. However, DNPWLM holds the view that tight consistency and coordination in the Programme are still necessary. Offers of donor assistance and NGO participation are therefore filtered through the Collaborative Group (for technical evaluation) and the CAMPFIRE Association (for council and community evaluation). The latter is important to ensure that donor and NGO inputs are accountable to councils and communities.

4.3. IMPLEMENTATION

Implementation of CAMPFIRE commenced over the period 1986-1988, and involved DNPWLM and its partners in dialogue with selected district councils and communities (wards or VIDCOs). The length of this period reflects the time required for the community and external agency dialectic (see 4.2). Particularly when there are no local models on which to build, this is likely to take protracted time.

The selected councils and communities chosen for initial approach were those with high *a priori* chances of success. These included communities with considerable wildlife resources and district councils with such communities. In practice two types of approach can be discerned retrospectively. Firstly, to district councils initially, and then through these to communities. Secondly, to selected communities initially, and then to their respective councils subsequently. This typology is somewhat artificial and masks the actual historical dynamics which occurred. Nevertheless, Nyaminyami and the Matebeleland districts can be cited as an example of the first, and Kanyurira and Mahenye communities as examples of the second.

As a generalisation, councils that were approached were quick to accept. Naturally so, since *Appropriate Authority* status meant an immediate rise in their wildlife revenues at little apparent cost, as well as an increase in their authority. Communities were far less willing to accept the programme immediately. They were suspicious that it would increase council intrusions into their affairs, restrict their agricultural activities and were skeptical of any suggested benefits. Notable is the fact that communities with large recent immigrations of farmers seeking land for petty commercial agricultural production were particularly resistant to the Programme (eg, Simuchembu in the Gokwe District). Thus, it was easier for CAMPFIRE to start with the district than with the community. At the same time, it should be noted that the *community-first* approach has produced

some of CAMPFIREs most notable successes. The first approach has tended to encourage stalled devaluation (see 2.2).

During the early stages of implementing CAMPFIRE, DNPWLM used the available legislation, largely by-passed the Ministry of Local Government, and went directly to councils. Whether this was wise or not is open to question. On the one hand, Local Government would never have accepted the principle of devolution to sub-council units without the successful models and popular support that this strategy produced. On the other hand, full and supportive involvement by the Ministry of Local Government from the beginning would have avoided subsequent disputes with that Ministry over such matters as leases and the use of revenues (see 5.3).

Generally implementation has been carried out in the following stages:

- initial dialogue and consultation with communities and 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; initially largely safari operators, subsequently tour operators for lodge lease sites;
- 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;
- build-up of community interest in wildlife activities. Wildlife committees frequently became the most important committees in the community because of their revenue-generating capacity. intensification of community debates on membership, technical interventions on issues such as problem animal control. Commencement of local-level use planning.
- increasing confrontation between communities and councils over wildlife revenues. This is an **effect** of first phase success in that wildlife is now a valued resource. However, it is included here as an implementation stage, since it can be considered as an inevitable step in a process of devolution that must be anticipated and contained.

4.4. PRIORITISATION AND PILOT AREAS

The strategy of initially targeting communities and councils with high potential for success has already been discussed (see 4.3). This is wise, since the initial stages of a new programme require existence of a few successful models. Therefore, CAMPFIRE involved in its first years a concentration of external agency inputs into a few pilot districts and communities. As the Programme has expanded it has been impossible to provide either initiation of implementation activities at this level. Thus the impetus for expansion has largely been through lateral adaptation by other communities and districts of the successful models. Success breeds success, and CAMPFIRE has become a bushfire.

Perhaps the best single example of the success of this strategy has been the Chikwarakwara VIDCO case. Here, Beit Bridge District Council genuinely implemented the sub-council devolution of its *Appropriate Authority* status with dramatic initial effect in the VIDCO concerned (Child and Peterson, 1991).

4.5. DONOR AND TECHNICAL ASSISTANCE

Technical assistance is required for such a programme, particularly in the inception phase. There is also a need for judicious donor funding. Technological innovation in the management and use of natural resources may be appropriate, but beyond the means of cash-starved communities. The communicational dimensions of institutional development may require recurrent community budgets which in initial stages they are not able to meet. Where programmes involve new marketing arrangements communities may need *start-up* capital to enter the market competitively. These can all be good reasons for donor funding. What is important is that donor funding is functional for community interests rather than being a purchase by the donor of a *stake* in the community's resources.

The CAMPFIRE experience suggests that it is important that judicious donor funding should consider the following points (Murphree, 1994):

- care should be taken to avoid grants for capital development over which the community has little control or interest in maintaining;
- avoid funding that drives a rapid build-up of bureaucratic and managerial overheads that in turn are not sustainable and that divert benefit away from community constituents;
- indirection in the use of donor funds should be considered. Some donors with a conservation mandate refuse to do this as being outside their brief. However, certain circumstances may call for this. For example, the provision of a cattle watering point or the fencing of a vegetable garden may be linked with the community's ability to manage wildlife;
- the use of donor funds to provide soft loan facilities for communities is an important but usually neglected consideration. This can be a mechanism that tightly links performance with assistance in community perceptions, and it provides them with capital not usually available to them through commercial loan agencies. It can also enhance their bargaining position with private entrepreneurs, who can also be a source of capital inputs;
- properly directed, donor funding can be used as an instrument for community institution building in fiscal management, particularly if accountability for funds is located in the community. Donor agencies and governments are often reluctant to do this on the grounds of community inexperience in financial accountability, placing them in a Catch-22 situation. However, this is an important institution building dimension of donor funding;
- donor agencies are frequently culpable of propagating unrealistically short time frames for the achievement of the objectives of the grant. They march in tune to the imperatives of their own mandates, which are often of the supply-driven *move a lot of money quickly* variety. These imperatives are often incompatible with the pace of community institutional development. Generally long-term grant facilities with small-scale increments are better than short-term, large-scale inputs.

The role of other sectors in CAMPFIRE is discussed fully in section 5.3, while quota setting and monitoring are discussed fully in section 6.1.

5. PARTNERSHIP AND COMMUNITY-BASED CONSERVATION

5.1. TRADITIONAL AND MODERN AUTHORITY STRUCTURES

In rural Zimbabwe, as elsewhere in ex-colonial Eastern and Southern Africa, a history of attempts by central governments to replace traditional authority with modern bureaucratic authority is evident. The success of these attempts has varied with policy and local context. However, as a generalisation, traditional authority has been remarkably resilient as a power base in local communities. This is particularly true of controls on natural resource management, since the cultures concerned often link environmental health with ancestral proprietorship through religious belief (cf. Murphree, 1993b).

The CAMPFIRE Programme is a coalescence of communal proprietorial regimes and modern local government structures. Hence CAMPFIRE, would appear to be sponsoring the emergence of modern authority structures at local levels through the creation of wildlife committees. In practice the approach has been pragmatic. Communities should be left to decide for themselves the balance they wish to institute between the traditional and modern sources of legitimacy which guide their governance.

5.2. COALITIONAL STRUCTURES (COMMUNITY AND DISTRICT STRUCTURES)

One of the major challenges facing CAMPFIRE is the lack of fit between the communal proprietorial regimes it advocates, and the primary unit of exploitation that has provided for its success, the safari concession. The communal unit of management requires limited scale (see section 3.3), but this is unlikely to be large enough for safari concessions (although there are Zimbabwean exceptions, such as Mahenye and Gatshe Gatshe). The same problem does not apply to other uses such as tourism lodge sites, although there are also exceptions.

With district council proprietorship this does not usually pose a problem, since district councils contain areas large enough to encompass one or more safari concessions. This has been used by district councils as the argument for retaining proprietorship at district levels. However, this would break the tight links between cost and benefit, authority and management, that are an essential component of the Programme. The solution lies in structures of **coalitional proprietorship**, in

which two or more communities jointly contract with a safari operator creating one concession area. Allocation of responsibilities and revenues would be through a formula linked to production (see 7.3 below). The district council and DNPWLM may have a coordinate role (see 5.3 below). This approach is now in place in certain districts, and is consistent with the practice of joint involvement in safari concessions in some commercial ranches.

5.3. CO-MANAGEMENT STRUCTURES (COMMUNITIES AND OTHER AUTHORITIES)

CAMPFIRE's promotion of local proprietorial units is not the advocacy of community autarky. There are several reasons why in the contemporary world communities cannot act in an autonomous, isolated mode. The penetration of modern market systems into the rural periphery binds communities into larger economic structures and may fragment collective community economic interests. National political integration and bureaucratic regulations erode the autonomy of internal communal authority. Thus communities need allies if they are to realise proprietorial claims, importantly including the state. They also need organisational assistance in installing localised collective arrangements that can subsume internal division and effectively interface with external actors under these new conditions, for which their history and experience provide little precedent.

These circumstances have promoted the advocacy of schemes of *co-management* between communities and government for which the arguments are persuasive. However, co-management is a broad concept that can cover a wide spectrum of managerial arrangements. In one sense almost all land and resources are co-managed by the state and other actors. These range from the urban plot-holder subject to municipal regulations to the farmer subject to veterinary and cropping quotas. However, proposals for state-community co-management usually suggest a far greater direct state involvement in *hands-on* management than this. Given the differential in authority and resources possessed by the state and communities, it is not surprising that state-community *co-management* in practice turns out to be state management.

The CAMPFIRE Programme has sought to avoid this kind of co-management, with various degrees of success (see section 2). What is sought is a situation in which the major government agencies withdraw from a lead role in local planning and an authoritative role in management decisions. Their role shifts to that of extension, coordination and back-up authority for overall objectives. In a sense, this role can be considered as *trusteeship*.

The main government agencies in CAMPFIRE have been DNPWLM and the Ministry of Local Government. The Ministry of Local Government was marginalised in the early stages (see 4.3), but its importance has become clearer as the Programme has progressed. This Ministry deals with local governance, and is as important to the Programme as DNPWLM. It is the *watchdog* for all contracts in communal lands and can delay arrangements required by the Programmes. There has been a belated recognition of this in CAMPFIRE, to the detriment of implementation. The lesson here from CAMPFIRE for Tanzania is that the government agencies involved in local government should be supportive and fully involved in community-based programmes at an early stage.

Other government ministries and departments have also been important for CAMPFIRE. Among these are the Ministry of Agriculture and Lands, the Forestry Commission and the Department of Physical Planning. Generally they have been supportive, but their involvement has been *ad hoc* and intermittent. More integration is required, both at the policy level and at project levels.

5.4. MANPOWER RECRUITMENT AND TRAINING

5.4.1. Community and Council Levels: At local and district levels recruitment and training have primarily been of two types. The first type is training on technical aspects of wildlife management, such as recruitment and training of scouts, game guards, electric fence maintenance staff and other paid employees. This type of training has been a responsibility of DNPWLM, but limitations in its resource have been a constraint. This has been a weakness in CAMPFIRE that requires attention and greater support.

The second type of training is of local personnel in committee and administrative procedures, and in fiscal management. This type of training, catering for community institutional management skills, is perhaps even more important. This has been a task assigned to NGOs operating in concert with council institutional officers. It is a vast undertaking and delivery has been uneven. Initialised extension training capacity exists in certain government agencies such as the Agricultural

Extension service (AGRITEX) and the Ministry of Cooperative Development that should be incorporated into the Programme.

One type of recruitment and training that is politically and developmentally important is that of professional training for the safari and tourism industry. Politically this is important since there is the (largely correct) perception in Zimbabwe that the safari and tourism industry is still largely a white domain. It is in the long-term interests of wildlife conservation and the CAMPFIRE Programme in Zimbabwe that this be changed, but progress on this issue has been slow. One mechanism to accelerate the process is now being introduced. This requires district councils, in awarding safari contracts, to make it obligatory for operators to recruit and apprentice young locals for training.

5.4.2. DNPWLM Levels: DNPWLM has to date been slow to assign and train its staff for specific CAMPFIRE responsibilities, relying on wardens and ecologists to provide inputs in addition to their other duties. Severely constrained by staff establishment shortages, the inevitable result has been that in many areas CAMPFIRE extension activities have been given low priority by staff. There is also the problem that many DNPWLM staff, recruited in a pre-CAMPFIRE era, do not fully understand or appreciate the CAMPFIRE approach.

Recently DNPWLM has moved to correct this situation. The number of staff assigned to training in the multi-disciplinary MSc in Tropical Resources Ecology at the University of Zimbabwe and the CASS/IUCN regional course on the Human and Social Dimensions of Environmental Management has increased. This kind of training is vital for the long-term interests of the Programme, but an item that is often neglected in programme planning and budgeting. Tanzania's planning on community-based conservation should consider this, perhaps in consultation with its local universities.

6. RELATIONSHIP BETWEEN LOCAL COMMUNITIES AND WILDLIFE RESOURCES

6.1. EXISTING AND PROPOSED LEGAL MECHANISMS FOR USING WILDLIFE

The basic approach of CAMPFIRE (see section 2) is to devolve management decisions on the use of wildlife to the localised proprietorial unit. This approach is based on the assumption that the benefits of proprietorship will motivate sustainability. This approach is embodied in the Act, and has been proved to be correct on private land and in communities in the CAMPFIRE programme where genuine devolution by councils has occurred.

The Act, however, does address special circumstances. It is for this reason that the Act does not confer *ownership* of wildlife on land owners or occupiers in a legal sense, but rather *custodianship*. One particular special circumstance is the protection of endangered species, wherever they are found. A second is the recognition in the Act that certain species (eg, elephant) are mobile and range over areas larger than any single proprietorial unit. Therefore, there is the possibility that one proprietorial unit may disproportionately use animals that range over several units. The Act therefore gives power to Intensive Conservation Areas (ICAs) on private lands, which are combinations of farms and ranches, to regulate use of what is in effect common property. In effect this is a type of the coalition proprietorship mentioned in section 5.2. The Act also allows for DNPWLM to impose restriction orders on areas deemed to be infringing this intention. In communal lands the rural district councils are in an analogous position to the ICAs. Thus, DNPWLM is in a position to intervene if the overall conservation objectives of the Programme are in jeopardy in any given site. In practice, DNPWLM has had to issue restriction orders rarely, and in only one instance relating to communal land.

In giving *Appropriate Authority* status to district councils, DNPWLM stipulated the proviso that it would determine quotas in the initial period of this status. At present, DNPWLM is involved in a training process designed to create the capacity for districts and wards to set their own quotas. An annual manual for this exercise is provided to districts and wards (DNPWLM, 1993).

No substantive changes in this aspect of current legislation are considered necessary or are proposed.

6.2. TYPES OF BENEFIT AVAILABLE FROM WILDLIFE

Under current legislation and under the CAMPFIRE Programme, wildlife may be used in any sustainable way (or combination of ways) determined by the communities themselves. However, the assumption is that communities will choose use forms perceived to be the most economically beneficial. This assumption has largely been borne out in practice.

Modes of utilisation include:

- sale of quotas to the safari hunting industry;
- cropping for local meat consumption;
- cropping for ceremonial occasions;
- leases of lodge sites for game viewing;
- sale of live animals to purchasers in the private sector; and,
- use of hides and other products for local cottage industries.

Of these modes, safari hunting has predominated to date, since it is high value, and requires little local or council capital investment. Lease of lodge sites is coming into more prominence at sites where this is feasible. Cropping has been used most extensively in one district with large impala quotas using professional cropping techniques (cf. Taylor, 1990). The Programme is investigating local community hunting, but no community has yet instituted this, although active planning is taking place in one ward. To date communities with high safari revenues have not wished to jeopardise this by local cropping. There is also some evidence that these communities are using safari revenues as a food security mechanism in times of drought.

6.3. MECHANISMS FOR SHARING BENEFITS

An essential component of CAMPFIRE is that proprietorial communal wildlife units should be in full receipt of all net revenues from wildlife. Furthermore, proprietorial units should have the full right to decide on the use and distribution of these revenues. The implementation of this principle has been fraught with debates and dissension (see section 2). There are three components to this debate. Firstly, whether district councils have a claim on a proportion of these revenues (see section 6.6 below). Secondly, the use to which these revenues is put. District councils would prefer that these revenues be used for community infrastructure, such as schools and clinics, thus relieving them of providing these facilities. Communities, in certain circumstances, have preferred to distribute revenues as household dividends. Thirdly, there is the issue of who, in the community, has a right to share in benefits.

This third issue has had the interesting repercussion of sharpening community debate on its own membership. Rights of inclusion and exclusion are a necessary component of a communal property regime, and communities in the programme are becoming increasingly resistant to immigration by outsiders. This has been a spur to local land use planning, fed by the desire to preserve wildlife range and limit the number of local shareholders in the wildlife resource. Local responsibility for decisions on revenue distribution has also stimulated institutional development at local levels (Child and Peterson, 1991).

Where communities have received a genuine devolution of authority, the record shows that they have annually made flexible decisions on revenue distribution. Communities have emphasised household dividends in drought years as a food security device, and used revenues for communal projects in good agricultural years.

6.4. ACCOUNTABILITY, TRANSPARENCY AND SUSTAINABILITY

Local proprietorship, where it has occurred in CAMPFIRE, has also driven increased pressure for transparent accountability in the management of wildlife and the handling of revenues. Safari operators are increasingly being monitored by the presence of community scouts. Communities are demanding from their treasurers clear statements of income and expenditure. Performance of wildlife committees is carefully scrutinised and membership is frequently changed.

These pressures do not imply that well-working systems of resource and fiscal management are always in place. Rather, they indicate the recognition that they often are not and also the

importance which communities place on the issue. It is here that institutional training is so important (see 5.4.2).

Sustainability in the CAMPFIRE context has two dimensions. The first is that wildlife offtakes are at sustainable levels and that its habitats are maintained. Where genuine proprietorial devolution has taken place in the Programme, the indicators are good. Wildlife populations are stable or growing and habitat protection in terms of fire control and maintenance of woodland is evident. Perhaps more importantly, there is a growing recognition of the fineness of the community resource base with the land use planning that is arising from this (see section 5.3).

The second aspect of sustainability is institutional robustness at local levels. Sustainable use programmes require sustainable institutions, and this is far more difficult to achieve. It requires at community levels supportive policy, legislation and assistance from larger governance structures, local empowerment and training. The CAMPFIRE Programme is a continuous, evolutionary process. If it is to continue to thrive, this evolution must be directed to shifting the locus for its motivation to what must be its core. This core is the interest of local people in maintaining an environment providing for their livelihood.

Incentives and disincentives are described fully elsewhere (see section 2).

6.5. STAKEHOLDERS: VILLAGE, DISTRICT AND CENTRAL GOVERNMENT

Clearly the CAMPFIRE Programme seeks to make the community the major *stakeholder* in its wildlife resources. However, it is recognised that both central government and district councils hold a stake in these resources.

As far as central government is concerned, communal land wildlife resources are regarded as are those on private land, to be developed and exploited as part of the wildlife industry. Central government derives no direct revenue from these resources. Instead, its revenues come indirectly from the taxation of earnings in the tourism and safari hunting industries. Direct revenue from wildlife accrues to government only from tourism and safari hunting in the P&WLE and Forestry Estate.

Council claims on communal land wildlife revenues are much more controversial (see section 2.2). Up to the present the CAMPFIRE Programme has operated on the formula described in section 2.3. This is unsatisfactory for two main reasons:

- it leaves discretion to district councils and exacerbates misunderstandings between councils and communities; and,
- it effectively taxes wildlife production in communal lands while leaving untaxed most other forms of production. This places the wildlife industry in communal lands in an artificially distorted competitive position.

Rural district councils are under pressure from government to balance their budgets, and under CAMPFIRE for many of them the wildlife industry provides a significant part of the economy of the areas they service. Therefore, it follows that wildlife revenues are likely to constitute an important part of the tax base that they require. In this situation the following analysis and suggestions have been made:

- the rural district council taxation system should be equitable, and not tax communal land wildlife revenues more heavily than similar production on private land;
- wildlife revenues are, compared to other rural farm revenues, relatively easy to determine and tax. The 15% levy or tax on communal production is an example. This could lead rural councils into the easy solution of maintaining this kind of tax on communal land producer communities and extending it to private farms and ranches. However, this could perpetuate a situation in which wildlife production is differentially taxed. This would make it an uncompetitive form of production for farmers in situations where intrinsically it is a sounder economic and ecological form of land use. The Minister of Environment and Tourism sounded a warning on this point in his 1992 speech to the CAMPFIRE Association when he said:

In the implementation of this programme we should avoid the pitfall of making wildlife the only resource that can be used for district development. This is a point I would like to stress to avoid the temptation of levying or taxing wildlife while exempting cattle and crops. You will no doubt appreciate that this not only is discriminatory, but also quite unfair.

The rural district council taxation system must therefore be revised to apply to all uses or revenues benefiting from RDC services on an equitable basis. This must be done in a manner that does not discriminate against any form of environmentally sound and economically productive land use;

- RDCs can help balance their budgets by shifting many of the wildlife management activities and costs that they have developed to the producer units. Communal land producer units should be expected to take over and pay for management costs, just as is expected of private farms and ranches. It is recognised that some coordination and regulatory services in wildlife management, for both private and communal land, may be required from RDCs. Producer units should pay for these services, according to their needs and on the basis of agreed schedules of fees (Murphree, 1993c).

7. PRIVATE SECTOR ISSUES

7.1. ROLE OF THE PRIVATE SECTOR

The private sector has been critical to the success of CAMPFIRE, which depends on the safari and tourism industry as the main mode of revenue generation. Almost exclusively, the private sector has the necessary professional skills and marketing networks. It has also provided the bulk of the required capital investment.

The Programme has made some attempts to develop self-managed safari or tourism ventures by councils or communities. The Guruve District Council mounted its own safari operation for one of its two hunting concession areas over the period 1989-1991. Capital start-up costs were provided by a donor through ZT and the council employed a professional hunter as manager. In the event, the council decided to withdraw from direct management in 1992 and leased this area to a private operator, who still holds the concession. It would be dangerous to generalise from this one experiment. However, it would appear that councils, as elected administrative bodies, may be poorly placed to manage professionally at this scale.

Other community-based small-scale tourism camp site ventures have also been initiated. These appear to have better chances of success. To date, one of the major constraints faced by these small-scale ventures has been marketing and booking, and the CAMPFIRE Association is moving into this servicing role.

7.2. LEASING

With implementation of CAMPFIRE, tour and safari operators have had to contract directly with councils. All such contracts are subject to approval by the Ministry of Local Government. Leases for hunting concessions have generally been for periods of 2 to 4 years. Tourism lodge sites require a greater fixed capital investment, and leases are generally for 9 years 11 months.

Early contract negotiations showed a lack of sophistication in council dealings with operators, and also a lack of transparency. Therefore, the Ministry of Local Government and DNPWLM laid down guidelines requiring *inter alia*:

- public call for tenders stipulating both concession prices and other services offered;
- vetting by DNPWLM of the record and credentials of tenders;
- interviews of short-listed bidders by the district council wildlife committee, with a DNPWLM officer in attendance; and,
- decision on allocation by the district council, subject to Ministry of Local Government approval.

DNPWLM and its Collaborative Group partners have carried out good extension work on educating district councils on the complexities of lease negotiation. This has included research papers on options (eg, Jansen 1989, 1990), the production of model lease agreements (commissioned documents by Price Waterhouse) and training sessions including role playing techniques.

7.3. PRIVATE SECTOR/COMMUNITY RELATIONSHIPS

Under current legislation private sector operators contract directly with, and make payments to, district councils. This has given power to councils to control revenue distribution, and has also set up a relationship in which operators consider their accountability to be solely to councils. As a result, some operators have ignored the importance of their relationship with communities. This is unfortunate, since it is in the community-operator nexus that the primary dynamic of mutual benefit derived from sound management lies.

Some initiatives have been taken in certain districts to correct this. On an *ad hoc* basis certain ward wildlife communities have inaugurated regular coordination meetings with operators. Nyaminyami District has taken the decision to authorise ward wildlife bank accounts, and the operator pays trophy fees on a monthly basis directly to the community on the basis of the quota take. These are steps tightening lines of accountability between communities and their operator clients, and position the Programme for the legislative change discussed in section 3.3. If and when this legislative change is effected, contracts will be between coalition proprietors (section 5.2) and operators in the case of safari hunting contracts, facilitated by district councils.

8. PUBLIC RELATIONS

8.1. COMMUNITY LEVELS

Management and policy are an essential dimension in disputes over access, costs and benefits. At community levels the best public relations approach is for transparent, democratic decisions perceived to be in the collective interest. No amount of persuasive rhetoric can produce positive reactions to CAMPFIRE if this is missing. If it is present, rhetoric is superfluous.

This is not to say that conservation education is not necessary. The CAMPFIRE Programme has made efforts to produce materials for use in communities and local schools, to good effect. However, the Programme is still deficient in fully utilising the potential of local schools and their teachers. This is an educational and public relations resource that still remains largely unused.

8.2. NATIONAL LEVEL

At national level public relations' responsibility has largely been assigned to the CAMPFIRE Association, which has recently appointed a publicity officer. Encouraging signs of growing collaboration between the Association and public wildlife groups, who largely represent a different, middle-class urban constituency, are evident. The Association now has a newsletter which is distributed widely.

8.3. INTERNATIONAL LEVEL

the ivory use and trade debate at CITES in 1989 and 1992. As a result it was used uncritically as an argument in the debate on both sides, using selective anecdotal evidence and with little appreciation of its long-term evolutionary nature.

DNPWLM, the CAMPFIRE Association and their Collaborative Group partners have sought to promote rational and critical self-evaluation of the Programme. This is essential if an adaptive management approach involving corrective negative feed-back is to be effective. This is the antithesis of a propagandistic approach to public relations, but in the long term this will be a strength of the Programme.

At the same time it is recognised that a good international image is important. This is difficult to orchestrate for what is essentially a home-grown African programme using agencies with few resources for publicity at international levels. CAMPFIRE must therefore rely heavily on informed journalism and scholarship for the dissemination of its approach abroad. Perhaps its greatest strength in this arena of activity is its consistency with the sustainable development and conservation through wise use approaches advocated by UNCED, and increasingly adopted in the developing world. The IUCN Sustainable Use of Wildlife Programme CAMPFIRE was given a prematurely high international profile due to its being used as a factor in is an example of an international programme that articulates this linkage, and a number of publications benefit an international understanding of CAMPFIRE (Makombe, 1994).

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20. COMMUNITY-BASED WILDLIFE CONSERVATION IN ZAMBIA

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1. INTRODUCTION

Zambia has a total land area of 752,610 sq km and supports a human population of over 8 million, of whom 60% live in rural areas. The annual human population growth in Zambia is 3.4%. Most of Zambia is formed by a plateau lying from 1000 to 1600 m asl. About 80% of the country is covered by miombo woodland dominated by species of *Jubernaldia*, *Brachystegia* and *Isoberlinia*. The remaining 20% is covered by other types of forest, woodland and grassland, including 6% of wetlands.

Zambia has 19 National Parks and 34 Game Management Areas (GMAs), representing about 8% and 24% of the total land area, respectively (see Figure 1). National Parks (NPs) are protected areas set aside primarily for the purpose of protecting the country's biological diversity. GMAs were established around most NPs in order to create buffer zones. Unlike NPs, GMAs are sparsely populated areas in which wildlife is intended to be the major form of land use. Wildlife resources within the National Parks and GMAs are under the central control of the Department of National Parks and Wildlife Service (NPWS).

NPWS has introduced the Administrative Management Design (ADMADE) for GMAs as a method of administering wildlife and improving the standard of living of people in the GMAs. Related community-based conservation programmes are the Luangwa Integrated Resource Development Project (LIRDP) and the Zambia Wetlands Project (ZWP).

2. SYSTEMS OF LAND TENURE

There are three systems of land tenure in Zambia:

State land: This land accounts for 6.5% of Zambia's total area and is under the control of the President, who makes grants and arranges leases through the Commissioner of Lands. Title holders of state land are individuals, groups or townships. Long-term leases are granted for areas of high population density and of commercial farming around Lusaka and in the Central, Southern, Eastern and Copperbelt provinces (Kwesiga *et al.*, 1986).

Other State land: This land accounts for about 35% of the country's total area, which has been set aside by the President for public purposes without payment of compensation. This land includes NPs, GMAs and Protected Forests.

Customary land: This land constitutes about 58.5% of Zambia's total area. This land may be occupied and used in accordance with customary law without lease or formal right of occupancy. The land can be acquired for public purposes on payment of compensation and when so acquired it becomes state land.

3. ADMINISTRATIVE MANAGEMENT DESIGN (ADMADE)

ADMADE is an NPWS programme aimed at administering wildlife and improving the standard of living of the local communities living in the GMAs.

3.1. BACKGROUND

NPWS suffered humiliation from uncontrolled poaching during the 1970s and much of the 1980s (Mwenya *et al.*, 1990). In order to resolve these problems, NPWS called a workshop in 1983 (Dalal-Clayton, 1984). As a result, a pilot programme known as the Lupande Development Project was conducted between 1985 and 1987 in Lupande GMA of the Luangwa Valley (Mwenya *et al.*, 1990; Lungu, 1990).

The Lupande Development Project undertook the following tasks:

- employing and training villagers as wildlife scouts;
- consulting with local community leaders on safari hunting and other wildlife management matters; and,

- retaining some funds from wildlife utilisation to pay for wildlife management costs and to finance local community projects.

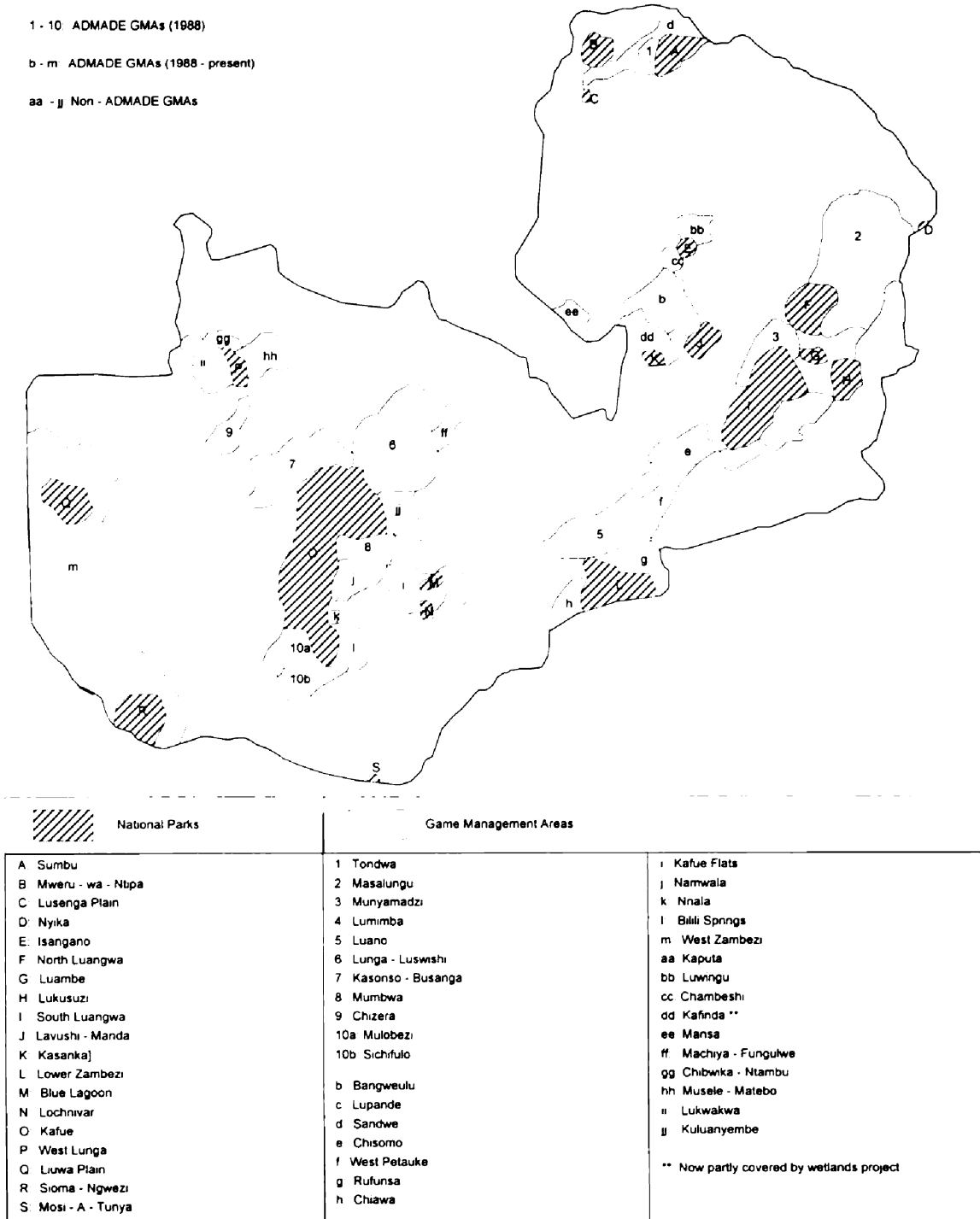


Figure 1: Major wildlife areas in Zambia

The Lupande Development Project ultimately expanded into what is now known as ADMADE, and the programme was initially introduced into 10 GMAs in 1988. The programme has now expanded to almost 30 GMAs (Figure 1).

3.2. OBJECTIVES OF ADMADE

ADMADE is intended to achieve a number of objectives, including the following:

- provision of an effective network of buffer zones for National Parks;

- provision of a self-sustained management programme for long-term protection of wildlife resources in GMAs;
- provision of an improved and sustainable basis for supporting local community projects;
- provision of closer working relationship between NPWS and local communities on wildlife affairs; and not least,
- provision of a means to develop the entrepreneurial skills among residents necessary for supporting the management and economic potential of renewable resources.

3.3. WILDLIFE CONSERVATION REVOLVING FUND (WCRF)

The Wildlife Conservation Revolving Fund (WCRF) was established in 1983 by the Zambian Government as a mechanism for recycling some of the revenue earned from wildlife utilisation by NPWS (Mwima, 1992a). Almost 90% of the revenue earned by WCRF between 1984 and 1988 came from the sale of elephant ivory. Although Zambia banned elephant hunting in 1981, trade in elephant ivory continued until 1989 when the African elephant was placed on Appendix I of CITES. The resulting loss of revenue was partly offset by the establishment of ADMADE.

WCRF is responsible for collecting and disbursing the money earned in ADMADE areas from hunting and concession fees and from income earned from other forms of wildlife utilisation, such as culling schemes. WCRF retains 50% of earnings from game licence fees, while the remaining 50% goes directly to Treasury. All concession fees and income from other sources (including leasing of tourist camps) are retained by WCRF.

The total revenue earned by WCRF is shared in the following manner:

- **40% Management cost:** This is spent on salaries of ADMADE employees, infrastructural development and wildlife management operational costs;
- **35% Share for local communities:** This money goes directly to the local communities within the GMAs where the money was earned; and,
- **25% Share for NPWS:** This money supplements government funding to NPWS and is primarily targeted at the so-called depleted GMAs and adjacent NPs.

3.4. FINANCIAL CONTROLS

The WCRF revenues are accounted for in the following manner:

- **management funds:** All NPWS provincial regions (known as Commands) have opened bank accounts in their respective areas for every ADMADE Unit. The WCRF disburses the funds to individual ADMADE Unit bank accounts quarterly. Each Wildlife Warden and ADMADE Bookkeeper are responsible for administering funds in line with the budget approved by the ADMADE Directorate;
- **share for local communities:** These revenues are withheld by WCRF for the particular fiscal year, and are disbursed during the following year. An effort has been made to disburse the revenues quarterly, but this has not worked very well. Every chiefdom within the ADMADE programme has opened a bank account where funds are deposited. In most areas, the responsible chief and officers from the District Council (and in few cases, Wildlife Wardens) are signatories to this account;
- **share for NPWS:** These revenues are administered by the WCRF for NPWS.

3.5. INSTITUTIONAL ORGANISATION OF ADMADE

NPWS senior officers (based at the NPWS Headquarters), and including a Technical Advisor, Land Use Planning Officer, Community Development Officer and ADMADE Project Officer, constitute what is known as the ADMADE Directorate. ADMADE operates at three major levels of administration:

- **national level:** This level involves 11 senior NPWS staff, four of whom are donor funded (ie, Technical Advisor, ADMADE Project Officer, Community Development Officer and Land Use Planning Officer). Members constitute the ADMADE Directorate, which is chaired by the Director of NPWS;
- **provincial and regional level:** For each GMA (or a set of GMAs) in the province where ADMADE operates, a local policy making body has been established known as the Wildlife

Management Authority (WMA). The WMA operates under the chairmanship of the area District Chief Executive, while the NPWS Wildlife Warden serves as Secretary;

- **local community level:** ADMADE has also established a Wildlife Management Sub-Authority (WMS-A) in every chiefdom within the GMA (or a set of GMAs known as a Wildlife Management Unit, WMU). WMS-A members include the area Chief who serves as the Chairman, and a NPWS technical officer in charge of the WMU who acts as Unit Leader and WMS-A Secretary.

3.6. TERMS OF REFERENCE FOR THE THREE LEVELS OF ADMINISTRATION

The ADMADE Directorate is responsible for reviewing and supervising operations in all ADMADE areas. As the overall policy-making body, the ADMADE Directorate is also responsible for the following:

- implementing all relevant recommendations of WMAs and WMS-As (eg, staff transfers, staff discipline, suspension of hunting in a GMA, and so on); and not least,
- liaison with donor organisations regarding funding for the ADMADE programme.

The terms of reference for each WMA are as follows (Mwenya *et al.*, 1990):

- monitor both legal and illegal off-takes of wildlife resources;
- initiate projects for improved wildlife management;
- approve allocations of sustained-yield quotas of wildlife as recommended by the NPWS Wildlife Research Division for various forms of use, including safari hunting, export and restocking, culling, resident and non-resident hunting, and so on;
- liaise with the Director of NPWS, on the issuance of hunting licences;
- ensure that 40% of the revenue is committed to the management costs of the wildlife resources within the WMU;
- ensure that 35% of the revenue is used by local village communities where those revenues were generated;
- prepare an annual workplan for the WMUs' wildlife management programme and local community improvement programme;
- enforce the National Parks and Wildlife Act No 10 of 1991 and other relevant Acts through the office of the Unit Leader;
- organise meetings and furnish the Director of NPWS with records of such meetings;
- encourage applied management research, and solicit outside expertise when needed;
- act as a planning body for formulating new wildlife policies and appropriate management activities;
- implement policy governing wildlife management for its WMU; and,
- manage self-help schemes by appointed committees.

The terms of reference for each WMS-A are as follows (Mwenya *et al.*, 1990):

- monitor and solve wildlife management problems at the level of the chiefdom (such as illegal off-takes of animals, damage to wildlife habitat, and so on);
- identify projects to be funded from the 35% share of ADMADE revenues;
- facilitate the implementation of any programmes, plans and projects approved by the WMA; and,
- initiate plans or recommendations for approval by the WMA for the overall improvement of the WMU.

The WMS-A is also expected to identify and recruit field personnel for training at the NPWS-administered Nyamaluma Educational and Research Station. On completing their training, the trainees are given the official title of **Village Scouts** and then sent back to their WMUs (Mwima, 1992b).

ADMADE has, from its inception, been receiving substantial financial and material support from USAID and WWF-US (NPWS, 1988; Mwima, 1992a; Saiwana, 1992). The donor's role and the need for improved Afro-Western dialogue has been discussed (Mwenya, 1993), while the *donor's dilemma* has also been identified (Wright, 1993).

4. LUANGWA INTEGRATED RESOURCE DEVELOPMENT PROJECT (LIRDP)

Like ADMADE, the Luangwa Integrated Resource Development Project (LIRDP) grew out of the Workshop organised by NPWS in 1983 (Dalal-Clayton, 1984). This workshop was held at Nyamaluma and was attended by people from various specialist disciplines. Even more importantly, the workshop included politicians, village dignitaries and Chief Malama, who has been a vociferous champion of the needs and rights of villagers to benefit from wildlife resources (Lungu, 1990).

4.1. BACKGROUND

As with the Lupande Development Project, a feasibility study for LIRDP was carried out in 1985. The study recommended the scope of the project in relation to its objectives, geographical areas, inter-sectoral nature, project duration and institutional structure. The feasibility study was undertaken by an officer from NPWS and a Norwegian counterpart with support from NORAD.

4.2. OBJECTIVES OF LIRDP

The objectives of LIRDP, as recommended by the consultants who undertook the feasibility study, were:

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

4.3. GEOGRAPHICAL AREA AND HUMAN POPULATION

Unlike the ADMADE programme, which has spread to almost every province in Zambia, LIRDP is confined to South Luangwa NP and the Lupande GMA, covering a total area of 14,000 sq km. The total human population in the project area is about 40,000.

4.4. INTER-SECTORAL NATURE

ADMADE is a primarily wildlife-based programme, but LIRDP has an inter-sectoral nature, that has involved the coordination of all sectors of rural resource production including agriculture, forestry, fisheries, wildlife and water development. Furthermore, the project includes programmes on women, cooperatives, road improvements, buildings and mechanical maintenance.

4.5. INSTITUTIONAL ORGANISATION OF LIRDP

The President of Zambia accepted and approved the project's recommendations in September 1985. LIRDP then started developing along the lines recommended by the feasibility study with an initial project duration of five years. Initially, the Directorate of LIRDP was responsible through the National Commission for Development Planning (NCDP) to an Inter-Ministerial Steering Committee, which was also responsible for coordinating sectoral activities on the ground. The President appointed himself as the Chairman of the Steering Committee. In March 1986, the officer involved in the feasibility study was seconded from NPWS to the project as Co-Director responsible for management. At the same time, a Co-Director responsible for technical matters was recruited. Funding came initially from the World Wide Fund for Nature (WWF) and later from NORAD channelled through IUCN – The World Conservation Union.

This following brief description of the LIRDP institutional structure is based on Lungu (1990).

- **Steering Committee:** The President served as Chairman and members included Members of the Central Committee and Cabinet Ministers responsible for the sectors and the provinces associated with the project.
- **Executive Committee:** This committee included Permanent Secretaries of the Ministries responsible for the project. This committee also served as the **Board of the LIRDP Revolving Fund.**
- **Technical Sub-committees:** Every sector (agriculture, women's programmes, forestry, fisheries, water development, wildlife management, works and supply including roads, and so on) has a Technical Sub-committee. These sub-committees develop and supervise the work programmes of the sectoral department staff.

- **Local Leaders' Sub-committee:** This Sub-committee consists of the six chiefs (Jumbe, Msoro, Mnkhanya, Malama, Kakumbi, and Nsefu), their *indunas*, four ward chairmen, Member of Parliament and District Executive Secretary. Through its traditional and political authority, this committee holds the power to control settlement patterns and therefore operates as a land use planning agency for the project. Other functions are similar to the WMS-A of the ADMADE programme.
- **LIRD P Revolving Fund:** Through decisions of the Steering Committee and the Executive Committee, authority was permitted to operate a Revolving Fund that differed slightly from the WCRF. The sources of income for LIRD P Revolving Fund's are:
 - funds allocated to the project by Government of the Republic of Zambia (GRZ) through the Ministry of Finance;
 - donor funding;
 - all public revenues (NP entry fees, game licence fees, and so on) raised within the project area, and,
 - earnings of business operations (milling company, safari hunting company, transport company, and so on) managed by the project.

The total revenue earned by the LIRD P Revolving Fund are shared in the following manner:

- **60% Management cost:** This is spent on the operations of the project;
- **40% Share for local communities:** This goes to the local communities through the Local Leaders' Sub-committee for use as decided by the sub-committee. Like expenditures in ADMADE areas, most of the money has been spent on construction of rural health centres, schools, and so on.

This initial institutional structure has been re-arranged following the change of government in 1991. LIRD P is now under the Ministry of Tourism. Instead of two Co-Directors, the project now has only one Director who is assisted by 3 Assistant Directors (all donor-funded) and 2 counterpart Assistant Directors (who are now being assimilated into the NPWS staff establishment). By the year 2000, the project will be administered fully by NPWS because donor funding will have stopped. Meanwhile, the process of transferring various sectors to line government Ministries has already started.

4.6. FINANCIAL CONTROLS

LIRD P revenues are accounted for the in the following manner:

- **management funds:** Funds for management and operations are administered by LIRD P headquarters, which serve as the Secretariat for the two sub-committees;
- **local community funds:** Like the ADMADE arrangement, every chiefdom has opened a bank account where the funds (after disbursement from the LIRD P Headquarters) are deposited. The area Chief, an advisor to the Chief, Ward Chairman and Vice Ward Chairman serve as signatories to the account.

5. THE ZAMBIA WETLANDS PROJECT (ZWP)

The Zambia Wetlands Project (ZWP) is Zambia's most recent community-based conservation initiative. However, the idea of such a project was first mooted publicly in 1983 (Jeffery and Chooye, 1991).

5.1. BACKGROUND

The strategic significance of Zambia's wetlands was officially recognised in 1983, when the role of local communities in their conservation was discussed in the context of a wetlands programme for the southern African sub-region. As a result of this regional meeting, GRZ developed the initiative further as part of a joint WWF/IUCN Wetlands Conservation Programme, and a Consultative Workshop was held in 1986. This workshop drew participants from: various specialist disciplines, village dignitaries from two of Zambia's largest wetlands, politicians, and representatives of concerned organisations and individuals (Jeffery and Chooye, 1991). After the Consultative Workshop, the WWF-ZWP was established with WWF International support in 1986.

5.2. OBJECTIVES OF THE ZWP

The ZWP objectives are very similar to those of both ADMADE and LIRDP. Specifically, the objectives are outlined below:

- conservation of wetlands natural resources and enhancement of their natural productivity; and,
- improved living standards of local communities living around wetlands, through sustainable utilisation of natural resources.

5.3. GEOGRAPHICAL AREA AND HUMAN POPULATION

Like the LIRDP, the ZWP is confined to specific areas. ZWP covers two wetland areas, with a total project area of 13,500 sq km, as follows:

- the Kafue Flats, comprising the Lochinvar and Blue Lagoon NPs, the Kafue Flats GMA and covering an area of just over 6,000 sq km;
- the Bangweulu Basin. Although the Bangweulu Basin is 19,000 sq km in extent, the project covers only 7500 sq km, comprising the Bangweulu GMA, Kalasa-Mukoso GMA and a small portion of Kafinda GMA.

The Kafue Flats fall within four Districts (Mazabuka, Monze, Mumbwa and Namwala) and includes seven chiefdoms divided into two Wetlands Management Units (the equivalent of WMUs in the ADMADE programme). The human population within the Kafue Flats' portion of the project is over 120,000. The area of Bangweulu Basin covered by the project falls within three Districts (Mpika, Serenje and Samfya) and includes seven chiefdoms, also divided into two Wetlands Management Units. The human population within the Bangweulu Basin portion of the project is over 40,000.

5.4. INSTITUTIONAL ORGANISATION OF ZWP

Like ADMADE, ZWP does not generally involve any coordination with other sectors. The exception is fisheries, which are included as in LIRDP. However, the project has adopted an integrated approach to wetlands management and community development. The institutional arrangement of ZWP follows the ADMADE arrangement very closely, especially at the Provincial, Regional and Local Community levels.

However, the National Level arrangement is known as the Wetlands Coordinating Committee. This committee consists of: ADMADE Directorate members; the WWF Country Representative; the Central ZWP Manager; the Central ZWP Community Development Coordinator; and, the WWF-DANIDA Wetlands Project Manager. The latter is responsible for the management of the project area within the Samfya District, which is being supported by the WWF-DANIDA through the WWF Country Office.

6. LAND USES IN COMMUNITY-BASED PROJECT AREAS IN ZAMBIA

Recognising the need for the development of land use plans, ADMADE has employed a Land Use Planning Officer (LUPO) whose salary and operational funds are provided from the WWF Cooperative Agreement. This is an important development considering that most GMAs have a variety of land uses, including agriculture, mining, fishing, human settlement, forestry, hunting, tourism, wildlife conservation, road development, and so on. These land uses have different requirements and may, therefore, be in conflict (Simasiku *et al.*, 1993). To guide land use planning, NPWS has prepared a Draft Format for Land Use Planning in Game Management Areas of Zambia. This guide has yet to be reviewed by various experts, local communities and other interested individuals and organisations. However, the underlining principle in land use planning is that the process should be community-based and done through local communities so that ideas originating with affected local communities are not excluded.

Formulation of land use plans should involve local communities from the outset so that the indigenous technical knowledge can be incorporated. This may require the use of Rapid Rural Appraisal methods (Jamieson, 1987). Furthermore, multi-disciplinary approaches involving natural scientists, social scientists, technicians and administrators working together can create a better plan than if each worked alone.

The approach recommended above can work very well not only in ADMADE areas, but LIRD and ZWP areas as well. The implementation of land use plans should be the responsibility of field officers, such as the Wildlife Warden and his staff, working in partnership with the affected local communities.

Acquiring data for preparation and formulation of land use plans has already started in some GMAs, namely Mumbwa and Namwala. Similarly, preliminary data collection has already started in wetland areas also. In LIRD areas, the Research and Planning Unit has initiated a land use planning and zoning exercise in conjunction with local communities.

7. COMMUNITY DEVELOPMENT IN COMMUNITY-BASED PROJECT AREAS

One of the major objectives of all community-based conservation initiatives is improved living standards for all local communities. ADMADE and ZWP have each recruited a Community Development Officer (CDO) to achieve this objective. ADMADE, LIRD and ZWP community development projects have concentrated on the provision and improvement of basic social infrastructure. The nature of community projects undertaken by the ADMADE programme from 1989 to 1993 is summarised in Table 1.

Table 1: Nature of Community Projects being undertaken in the Sub-Authorities since 1989 (based on Chonde 1993a)

GMA	Sub-Authority	Hammer mill	School	Teacher's house	Clinic	Clinic extension	Clinic staff house	Dip tank
Mulobezi	Moomba	1	-	-	-	-	-	-
Sichifulo	Chikanta	-	-	-	1	-	1	-
	Nyawa	-	1	-	-	-	-	-
	Siachitema	-	2	-	-	-	-	-
Mumbwa	Mulendema	-	2	1	-	1	-	-
	Kabulwebulwe	1	1	3	-	-	-	-
	Chibuluma	-	3	3	-	-	-	-
Namwala	Kaingu	-	-	1	-	1	-	-
	Musungwa	-	-	1	-	-	-	1
	Shezongo	1	-	1	-	-	-	-
	Shimbizhi	-	-	1	-	-	-	-
	Chiliabufu	1	-	1	-	-	-	-
Kasonso-Busanga	Mushima	1	-	-	1	-	-	
Lunga-Luswishi	Kasonso	1	1	-	1	-	-	
Munyamadzi	Nabwalya	1	1	-	-	-	-	
Musalangu	Lundu	1	1	-	1	-	-	-
	Chikwa	1	1	-	1	-	-	-
	Chifunda	-	2	2	1	-	-	-
Lumimba	Chitungulu	-	-	5	-	1	-	-
	Kazembe	-	1	1	-	-	-	-
	Mwanya	1	-	2	1	-	-	-
TOTAL	21	10	16	22	7	3	1	1

Notable examples of local community development activities in wetland areas include: employment and manpower training; construction and rehabilitation of two rural health clinics; rehabilitation of rural schools, wells and boreholes, and roads and canals (Jeffery and Chooye, 1991). ZWP has lately been emphasising community self-sufficiency through enterprises, cottage industries, hunting, fishing, agriculture and livestock improvement and marketing.

In LIRD areas, the notable local community development projects include installation of grinding mills, crafts training for young people, farming schemes, tourist enterprises, road improvement and maintenance and provision of public transport. LIRD has, through facilitation by the Community Liaison section, integrated gender issues into project activities. The Women's Programme has, for instance, been supported from the start of LIRD.

The important role played by women in the success of any project was recognised by ADMADE, which now supports Women's Clubs established in 15 WMS-As. Women are involved in poultry rearing, sewing, gardening, knitting, baking, and so on (Chonde, 1993a). However, it is important

for community-based conservation projects to introduce a more adequate analytical framework for integrating women. This is important because women will have an impact on most projects whether or not they are considered explicitly in the project design and implementation.

Lately, all the three initiatives have raised revenues for local communities from wildlife cropping schemes.

8. ASSESSMENT OF COMMUNITY-BASED CONSERVATION INITIATIVES

The community-based conservation initiatives now operating in Zambia have common and unique strong and weak points. Some of the common strong points are:

- conserving wildlife without the involvement of local communities who share the habitat with wildlife is now recognised to be completely inappropriate;
- local communities now derive some direct benefit from sustainable wildlife utilisation, and this may serve as incentive to conserve the resource;
- employment opportunities have been created for, and manpower training provided to, local people;
- basic social infrastructure such as clinics, houses, and roads, has been improved for local communities; and not least,
- cooperation between local communities and wildlife officials has improved, with a reduction in poaching in some areas.

Wetlands have been taken for granted, resulting in degradation and losses in some parts of the world. However, there is hope that their fragile ecosystems may be conserved in Zambia through ZWP. This may ultimately increase the benefits of development of the local people while attempting to protect fish and wildlife, environmental quality and socio-economic resource values.

The multi-sectoral approach of LIRDP broadens the areas of development, not only in the wildlife conservation sector, but in agriculture, forestry, fisheries and water resources also. Furthermore, LIRDP retains 100% of its revenue, enabling the allocation of comparatively more revenues to local communities, as well as to project management and operational costs.

The common weak points in the three community-based initiatives include the following:

- heavy dependence on the wildlife resource base, which is the principle revenue source (especially in the LIRDP areas where revenues from wildlife utilisation help to develop other sectors as well); and,
- no programme has yet attained self-sustainability, partly because of heavy dependence on donor funding.

There are a few areas of weakness that may not necessarily apply to all the three community-based conservation initiatives. Some of these are listed below:

- institutional capacity building is not fully addressed;
- authority to manage wildlife utilisation has not been fully transferred to local communities;
- some key positions are donor-funded, making it difficult to retain such expertise on a long-term basis;
- there is no adequate system of assessing the impact, successes and failures of programmes, in relation to their effects upon the resource base and upon local communities;
- delays in disbursement of funds for local communities, and for management and operational costs; and,
- personalising the programme(s) by some actors.

9. PROGRAMME EVALUATION AND FUTURE ORIENTATION

ADMADE, LIRDP and ZWP have been in operation for less than ten years. Therefore, it is premature to determine accurately whether these initiatives are having the desired impact of regulating natural resources utilisation, and providing improved standards of living for local communities. Nevertheless, it is important to have regular and systematic evaluations in order to examine the impacts the programmes are having. One way of doing this is to organise evaluation workshops for various actors and stakeholders (Chonde, 1993b).

Care must be taken, however, not to undertake evaluations for the primary purpose of fulfilling the requirements of donor organisations. In designing the programme evaluation, it is important to take into account the requirements of local communities. Thus, programmes influenced largely by exogenous factors result in the exclusion of the interests of the affected people (Matowanyika, 1992; Wood, 1992). Furthermore, programme evaluations should take into account the status of the natural resource base.

The future orientation of the three community-based conservation initiatives should be guided by the following proposals:

- changes have been proposed to the structure and operations of NPWS (Child and Lee, 1992). Therefore, it is imperative that organisational structures of the community-based conservation programmes are also reviewed to fit into the re-organised NPWS. Care must be taken not to align the organisational structure strictly to the government structure, because any change of government may disrupt the operation of the programmes;
- the issue of institutional capacity building must be clearly addressed so that the programmes can function as institutions. Institutions are very important to the success of community-based conservation programmes (Murombedzi, 1991; Murphree, 1994). Full enactment of community-based conservation programmes into the existing National Parks and Wildlife Act would be one major step towards institutionalisation;
- a deliberate programme must be effected to impart appropriate resource management and financial management skills into the local communities, to speed up the process of transferring authority and proprietorship. Furthermore, such a programme would enable local communities to acquire the necessary skills to account for their own funds;
- in order to maximise revenue returns, programmes should emphasise community self-sufficiency through the development of economic activities based on properly planned land-uses (such as fishing, agriculture, and so on). The revenue sharing mechanism should also be reviewed so that all stakeholders receive an equitable share;
- the role of women should be explicitly considered in the programme design and implementation;
- programmes should be evaluated regularly (annually at least) in order to assess whether they are adequately addressing the objectives. It is advisable to involve independent, but competent evaluators; and,
- finally, but certainly not least, all actors involved in the programmes must inculcate in themselves humility and flexibility, and not personalise the programmes and ignore constructive criticism.

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21. THE EVOLUTION OF COMMUNITY-BASED NATURAL RESOURCE MANAGEMENT IN NAMIBIA

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1. POLITICAL HISTORY AND LAND TENURE IN NAMIBIA

South Western Africa, between the Orange and Kunene rivers, was claimed as a German colony in 1885. After the First World War, the conquered territory was declared by the League of Nations as a C Mandate, entrusted to the Union of South Africa. From 1919 to 1990, South West Africa was administered as a virtual colony by South Africa. On 21 March 1990, after a 23 year armed liberation struggle, Namibia attained its independence.

During the German and South African colonial periods, large numbers of white settlers from these two colonial countries took up residence in the Territory. Between the late 19th century and 1956, much of the fertile interior highlands were surveyed into farms. These farms ranged in size from 50 to 400 sq km, and were sold at nominal prices to white immigrants. The dispossessed indigenous inhabitants became squatter-labourers on the white-owned farms, or were resettled in *native reserves*. As towns and mines were developed, many residents of native reserves also became migrant labourers in the *white area*.

In the 1950s, the South African Government appointed the Odendaal Commission. This commission divided Namibia into: privately owned land exclusively for whites (49% of the country); state-controlled protected areas, including National Parks (NPs), Game Reserves (GRs), Recreational Areas and restricted access Diamond Areas; and, semi-autonomous, communally owned *homelands* for the 10 major ethnic groups in the country. In 1980, the white exclusivity clause for the privately owned land area was removed. Thus a few black Namibians were able to purchase farms with the assistance of the ethnic homeland authorities and *soft* Landbank loans.

After Independence, the new democratically elected government of Namibia scrapped the ethnic homeland system, and divided the country into 13 regions, each comprising four to six districts. In 1992, regional elections were held to choose district representatives to sit on newly formed regional councils. Government-appointed Governors chair the 13 regional councils.

A land reform policy for Namibia has not yet been completed, and all previously designated homelands remain communally owned under the authority of the traditional leadership of the local tribal groups. Present indications suggest that communal land tenure will remain the policy of the Government in these areas. However, some economically or politically powerful individuals have recently fenced off tracts of communal land for their exclusive use.

2. WILDLIFE CONSERVATION IN NAMIBIA

The first nature conservation laws, prohibiting the killing of elephants and male ostriches, were introduced by the German colonial authorities at the end of the 19th century. In 1907, 4 GRs were proclaimed in the Territory:

Game Reserve No 1 was situated in the central Namibia Desert. In the 1970s and 1980s it was enlarged to include parts of the adjoining escarpment ranges as well as much of the southern Namibia (previously Diamond Area No 2). It is now known as the Namibia Naukluft NP and covers an area of over 50,000 sq km.

Game Reserve No 2 encompassed the area around the Etosha salt pan and most of the Koakoveld. In 1970 the Koakoveld was de-proclaimed and the area around the Etosha pan reduced. What remains is now known as the Etosha NP, with an area of 22,000 sq km. The northern Namibia Coastal strip was also retained as a protected area, now known as the Skeleton Coast NP, with an area of 14,000 sq km.

Game Reserve No 3 was situated in the Brootfontein district. It has been de-proclaimed subsequently and included in the privately owned farming area.

Game Reserve No 4 comprised the western part of the Caprivi Strip. It is still a GR, but between 1974 and 1990, it was occupied by the South African Defence Force.

After 1970, five new nature conservation areas and one recreational area were proclaimed:

- Waterberg Plateau NP;
- Daan Viljoen Game Park;
- Hardap Nature Reserve;
- Fish River Canyon National Monument;
- Hunsberge NP; and,
- West Coast Recreational Area.

Prior to 1967, all large indigenous mammals were State property. Persons wishing to hunt, including farmers on their own private land, had first to apply for a permit to the then Secretary for South-West Africa. This resulted in wild animals being generally regarded as little more than a nuisance that competed for grazing with domestic livestock and, in some cases, damaged private property. The residents of the native reserves and homelands in particular, regarded this restriction on the use of an important part of their traditional economy as unjust and discriminatory. This restriction caused a deep-seated resentment toward the conservation authorities and an alienation from this natural resource. Under these conditions, wildlife numbers outside protected areas steadily declined throughout the country.

The first legislative attempt to rectify this situation was made in 1967. Qualified ownership rights over certain huntable game species were granted to farmers on private land that met specified land-size and perimeter fence conditions. This pioneering legislation was updated and improved through Ordinance No 4 of 1975. The four huntable game species, greater kudu, gemsbok, springbok and warthog, were now regarded as valuable assets on the farms that met the conditions for *ownership*, and were actively conserved by the landowners. While these game animals enjoyed a new-found commercial value, the farmers also now felt an important sense of social empowerment. Farmers could make their own decisions over wildlife on their properties, and thereby manage the resource to fit in with their farming practices.

Ordinance No 4 of 1975 also permitted farmers who had game-proof perimeter fences around areas more than 10 sq km in size to hunt or sell (to sport hunters or alive) rarer game animals. The species allowed included eland, hartebeest, giraffe and mountain zebra, as well as introduced species, such as roan, sable, impala, blesbuck, and nyala. Consequently, trophy hunting had become an important economic enterprise on many farms by the 1980s. Indeed, several farms had become exclusive game ranches with accommodation facilities catering for both sport hunters and recreational tourists. As a result, wildlife numbers on privately owned land in Namibia have increased dramatically over the past two decades.

Unfortunately, to date, no similar legislative changes have been made with regard to wildlife on communally owned land. Therefore, big game numbers have continued to decline in most areas. The most conspicuous exception is the Koakoveld (now known as the Kunene Region), where a community-based natural resource management programme was started in 1982.

3. THE KOAKOVELD (KUNENE REGION)

3.1. SITUATION

Kunene is situated in the north-west corner of Namibia. The area is bordered by: Angola to the north; Ovamboland Plains in the north-east; Etosha NP in the east; Damaraland in the south-east and south; and, the Skeleton Coast NP and Atlantic Ocean in the west.

3.2. PHYSICAL CHARACTERISTICS

Kunene is a mountainous region, broadly comprising the northern Namibia desert (100-600 m asl), and interior highlands (1000-2000 m asl), divided by a rugged escarpment. The area has a size of approximately 70,000 sq km. The climate is semi-arid to very arid (350 mm to less than 50 mm of rain per annum). The vegetation comprises *Mopane-Terminalia* dominated woodlands and savanna in the interior, and *Commiphora-Euphorbia* dominated steppe in the west.

3.3. POLITICAL AND ECONOMIC STATUS

Kunene is a State Administered Communal Land, and has no formal conservation status. The area supports a human population of approximately 50,000 people, comprising the Himba, Herero, Damara, Riemvasmaker and Nama ethnic groups. In terms of its socio-economy, Kunene is populated by semi-nomadic pastoralists and sedentary livestock farmers, tending cattle, goats and sheep, with some small-scale dry land and irrigated agriculture. The local units of management differ throughout Kunene. In the north, there are autonomous patrilineages under traditional headmanship, under the Himba and Herero ethnic groups. In the south, there are elected headmanships, farmers' unions and community development committees, under the Damara, Riemvasmaak and Nama ethnic groups.

3.4 WILDLIFE

A wide variety of arid savanna and desert adapted species are found in Kunene. These species include: elephant, black rhino, giraffe, plains and mountain zebra, kudu, gemsbok, impala, springbok, duiker, steenbok, klipspringer, dik dik and warthog. Predators include lion, leopard, cheetah, spotted and brown hyena. Cape hunting dogs have recently become extinct.

4. CONSERVATION BACKGROUND

4.1. THE DEVELOPMENT OF ILLEGAL HUNTING

The region was de-proclaimed as a GR in 1970, and large-scale illegal hunting of all game species occurred. The main offenders were:

- Government officials stationed in the region;
- South African Defence Force personnel active in the north of the region;
- Portuguese refugees from Angola after 1975; and,
- the indigenous people.

A number of important factors contributed to the local people of the Koakoveld becoming involved in large-scale illegal hunting, including:

- the increased availability of military firearms during the liberation war;
- a commercial incentive introduced by non-resident middlemen for ivory, rhino horn, and the skins of leopard, cheetah and zebra; and,
- subsistence meat and cash requirements after losing upto 85% of resident cattle during the severe drought of 1980-81.

The first South African Government nature conservation official was stationed in the south-eastern part of the region, at Khorizas in 1978. However, his presence had little impact on the illegal hunting. By 1982 the elephant population of the region had been reduced from an estimated 1200+ in 1970 to about 250. Black rhino numbers were reduced from 300+ to about 65. All other large indigenous mammal populations declined by around 60-90%.

In 1981, authority for wildlife conservation in communal areas was transferred to the then South West African Directorate of Nature Conservation. A Senior Nature Conservation Officer was appointed for the region with one vehicle and one labourer/assistant. Although some good progress was made in gaining the support of the ethnic homelands authority for nature conservation, poaching continued in the region.

4.2. THE DEVELOPMENT OF COMMUNITY-BASED CONSERVATION

In 1982, a Namibian NGO, supported by the South African-based Endangered Wildlife Trust (EWT), initiated a project in the Koakoveld aimed at gaining the active participation of local communities in the fight against illegal hunting. Twelve years later, this project is still running and has been expanded to a northern Namibia. The areas covered include the Koakoveld, East Caprivi, West Caprivi and East Bushmanland. Since independence in 1990, WWF International and WWF-US have become the major sponsors of the programme, with EWT and Rossing Foundation playing a lesser supportive role. Donor funding has also been recently obtained from NORAD, USAID and ODA.

5. STEPS TAKEN TO DEVELOP A COMMUNITY-BASED APPROACH TO CONSERVATION

In the Koakoveld, the community-based conservation project has followed seven basic steps:

- building trust within local communities;
- joint planning and decision-making with local communities;
- active participation in conservation by local communities;
- shared responsibility and accountability for wildlife related issues;
- facilitating direct economic benefits for local communities;
- building the capacity of the local communities to jointly manage natural resources; and,
- environmental education.

Each of these steps is elaborated in more detail below.

5.1. BUILDING TRUST

The principles underlying this stage of the project were:

- the project manager and staff lived in the area and were easily accessible to local people;
- local knowledge and skills were recognized;
- community institutions were respected and, wherever possible, worked through; and,
- project staff became involved in community affairs, including non-conservation activities, and proceeded slowly in a step-by-step fashion.

5.2. JOINT PLANNING AND DECISION-MAKING

From the start, it was recognised that the local communities had been excluded from wildlife management. In the past, their interests had either been ignored or addressed paternalistically. As a result, local communities became alienated from the wildlife resource, developed hostility towards the conservation authority, and provided passive or active support for illegal hunting.

To rectify this situation, the local senior nature conservation officer and the NGO project staff discussed conservation actions with the community leadership. As far as possible, their support was obtained before implementation. Examples included:

- the decision to ban all hunting in the Koakoveld came from the regional authorities and the traditional leadership. This decision took some time, but this was a good investment because hunting offences were now contradicting the local authority structures' decisions;
- illegal hunting cases were discussed with the relevant community leaders before the accused were taken to court. Where appropriate, headmen and/or their councillors were taken to hear the court proceedings. Hence, they could report back to their communities on the case and the sentences passed.

5.3. ACTIVE PARTICIPATION

The local people in the area could offer:

- valuable skills, such as bushcraft and exceptional tracking ability;
- intimate knowledge of the area, its people and wildlife; and,
- long established local networks of information.

These were mobilised and incorporated into the conservation effort by establishing a Community Game Guard system. These men were selected and appointed by the local community, and remained responsible to the traditional leadership in the area. They were provided with rations and a small cash allowance by the local NGO, with financial support from international donors.

The Community Game Guards remained as livestock farmers, but were expected to report regularly to their headmen about wildlife matters. They reported on such matters as game populations and movements, mortalities, and problem animals, as well as on illegal or suspicious human activities in their home areas. To collect this information, guards were expected to undertake periodic patrols, on donkeys or by foot, within a radius of about 25 km from their homesteads. Monthly reports were also given to the NGO, when rations and cash allowances were

delivered. Relevant information was then extracted and passed on to the nature conservation authorities.

Cases of suspected illegal hunting were required to be reported to the nearest conservation official as soon as possible. These would be followed up by the authorities, usually with the help of the Community Game Guard and the local community. With this assistance and support, poaching incidents invariably resulted in successful prosecutions. However, it is important to recognise that the Community Game Guard network was primarily a mechanism to enlist the active participation of local people in wildlife conservation. Indeed, the main objective was to stop poaching rather than to catch poachers.

Local community members were also trained by a sister NGO, Save The Rhino Trust, to identify and report on the black rhino population in the region. The tracking skills and bushcraft of the local community have proved invaluable in this programme, enabling regular monitoring of this threatened species to take place.

5.4. SHARED RESPONSIBILITY AND ACCOUNTABILITY

Shared responsibility and accountability comes with joint decision-making and active participation. Such responsibility includes both the positive and negative aspects of the wildlife resource. Examples of this include:

- community action against illegal hunters: this can have a much greater deterrent effect on the offenders than fines or jail sentences imposed by the courts;
- community responsibility and action to ensure that the basic requirements of wildlife, such as water, grazing and browse, are available. This could include keeping domestic livestock out of core wildlife areas, leaving some water points for the exclusive use of wildlife and possibly even voluntary livestock reductions; and,
- communities sharing responsibility for taking action against problem animals, such as elephants damaging crops, predators taking livestock, and so on.

When local communities felt re-empowered about the wildlife resources in their area, they took more responsibility for the protection and management of wildlife, and reduced the financial and manpower load on Government. Ultimately, the government agency only needed to supply technical and legal support, extra armed manpower if necessary, and a watchdog role over national and international conservation issues.

5.5. DIRECT ECONOMIC BENEFITS

The Koakoveld community-based conservation project was built primarily on the social benefit of re-empowerment. However, the local communities had a right to share in any economic benefits generated directly or indirectly from the wildlife resources in their areas. Unfortunately, there was no legislative policy to enable them to do so. Consequently, the existing legislation was used to achieve this objective, as well as by voluntary support from a few private sector tour operators. Examples of wildlife-tourism activities that generated economic benefits for the local communities included:

- employment of local people as Government Game Rangers, Community Game Guards, rhino monitors, construction contractors and tourist lodge and safari workers;
- small game harvests were carried out by government officials in 1987, 1988 and 1991, and all meat and skins were given free or at a nominal cost to the local communities; and,
- a small pilot project was initiated in 1987 with a large safari operator that involved paying local people a *per capita* tourist levy. This was coupled with the development of a local craft market.

5.6. CAPACITY BUILDING

The project had an implicit policy at the outset not to give the Community Game Guards any formal conservation training. The main exception was to familiarise Community Game Guards with the national laws on wildlife, and with procedures to be followed in the case of a suspected poaching offence. The reason for the lack of training was to promote the knowledge, skills and initiative of the Community Game Guards. Furthermore, it ensured that Community Game Guards did not become a quasi-government anti-poaching unit, thereby alienating them from their own local communities. For this same reason, Community Game Guards were not issued with uniforms for the first four

years. However, their responsibilities soon became firmly established in the minds of Community Game Guards and they became confident in their community role. Only at this point were uniforms issued and some informal training given, mainly to improve reporting skills.

Other project capacity building activities included:

- in 1993, a large-scale game cropping operation was carried out entirely by local hunters, skimmers and community representatives. This involved planning the operation, keeping discipline in the hunting camps, and distributing the meat. Government agency officials and NGOs only monitored the operation and provided limited logistic support;
- community members have become very skilled at monitoring rhinos. This has helped to promote in local people a feeling of responsibility for this highly endangered species and pride in their role of protecting it;
- since Independence, NGOs have promoted and given logistical support to tourist camp initiatives by local entrepreneurs and communities. Sensitivity and practical training has also been given to local people wishing to follow careers as tourist guides; and,
- traditional leaders, farmers' union members and community development committee members have been given courses on the principles of sustainable development, with specific reference to the wildlife resources in their areas.

5.7. ENVIRONMENTAL AWARENESS

Formal environmental education was not seen as appropriate for rural communities in the Koakoveld. Such communities had grown up close to their natural resources, had a good understanding of natural processes and were well aware of their arid region's vulnerability to over-exploitation. However, a European-centred education system was introduced and a number of urban centres have recently developed. This has meant that a significant number of local people in the region, particularly school children, now have little or no contact with their natural environment.

Consequently, in 1990, an environmental awareness centre was opened at Wereldsend, IRDNC's base camp in the Koakoveld. The early focus of the centre was on school teachers in the region who are given courses on how to teach environmental issues both within and outside the classroom. Building on this, Earthcare Clubs have been started in 14 local schools, and these clubs are run by the teachers with logistic and resource support from the centre's full-time staff. Other target groups for courses at the centre have so far included:

- Nature Conservation diploma students from Namibia's technicon, and who attend an annual, week-long course in community-based conservation;
- senior science students from the University of Namibia;
- traditional headmen and their councillors, community development committees and farmers' union members, who discuss sustainable resource management in a consumer-driven economy; and,
- agricultural extension workers and nurses from the region.

6. RESULTING CHANGES IN WILDLIFE POPULATIONS

6.1 INCREASE IN WILDLIFE NUMBERS

The situation after Namibia achieved Independence in 1990 has been monitored by a series of game censuses, as follows:

- an aerial census of all game in 1990;
- black rhino ground census by individual identification in 1991/92; and,
- an aerial census of elephants in 1992.

The results of these censuses showed that all game populations had increased by 40-1000% since 1982. The numbers of some of the larger mammals recorded during these censuses are shown in Table 1.

6.2. SUCCESS IN BLACK RHINO CONSERVATION

The Community Game Guard system has been active from 1983 to 1992. During this period, only 11 rhinos are known to have been poached in the Koakoveld. During the same period, the neighbouring Etosha National Park lost not less than 50 black rhino to poachers. The continuing

success of black rhino conservation in the Koakoveld can largely be attributed to a four-pronged approach to their protection:

- law-enforcement and management (including the de-horning of some rhino in vulnerable areas) by the Government;
- a small armed anti-poaching unit periodically patrolling sensitive areas;
- individual identification of the whole population and regular monitoring by NGOs, the Government and local community; and,
- active participation and support for wildlife conservation by the local community.

Table 1: Numbers of large mammals in Kunene during recent game censuses (*the numbers of black rhino exclude 14 translocated out of the region)

Species	Numbers in 1982	Numbers at last count	Year of last count
Elephant	250	384	1992
Black rhino*	65	114	1991/2
Giraffe	220	300	1990
Mountain zebra	450	2200	1990
Gemsbok	510	1800	1990
Springbok	650	7500	1990

7. FROM LOCAL PROJECT TO NATIONAL PROGRAMME

7.1. DRAWING UP A POLICY

After Independence, the Minister of Wildlife Conservation and Tourism (MWCT) gave his support to bottom-up planning, grass-roots consultation and the philosophy of community-based conservation. Conferences and workshops were conducted in Windhoek that drew on the expertise and experience of all Namibians who wished to contribute. Communal area dwellers were also invited to send delegations to the conference and to make an input to the process. The end result was a new environmental policy that has community-based natural resource management as one of its cornerstones. In communal areas, the new conservation policy has as its objectives:

To establish in terms of a Cabinet Resolution, an economically based system for the management and utilisation of wildlife and other renewable living resources on communal land so that rural communities can:

- participate on a partnership basis with this and other Ministries in the management of and benefits from natural resources;
- benefit from rural development based on wildlife, tourism and other natural resource management; and,
- improve the conservation of natural resources by wise and sustainable resource management and the protection of our biodiversity.

In order to draw up regional and district natural resource management plans **with** local people, not **for** them, the MWCT's Environmental Planning Unit has carried out a series of socio-ecological surveys in conjunction with NGOs. The first targeted were under-developed areas that still had considerable wildlife resources including the Kunene region, East and West Caprivi and East Bushmanland. During these surveys the local communities and the leadership, regional political representatives, other ministries, NGOs and private sector operators were invited to participate actively in the process.

Broadly, each socio-ecological survey consisted of 6-10 days of holding meetings in the villages, by a team comprising MWCT, NGO and local community representatives. This team heard the people's problems with wildlife and tourism, their socio-economic needs and how they wished to see natural resources used in the future. This was followed by a two-day session of conflict resolution and planning by representatives of all the major stakeholders in the area.

7.2. CREATING A LEGAL FRAMEWORK FOR COMMUNITY-BASED NATURAL RESOURCE MANAGEMENT

In 1993 MWCT proposed the establishment of conservancies as the most appropriate structure for the devolution of management and user rights over natural resources in communal areas. The conditions laid down for the legal recognition of a conservancy are:

- the local people in the area should agree on who is the community;

- the community must then define the boundaries of its land area;
- the community must democratically chose and appoint a management committee that is representative of the community as a whole; and,
- the management committee must then draw a constitution and policy for the conservancy.

Once MWCT is satisfied that all conditions have been met and that the area is viable ecologically, the conservancy will be registered and the community will be granted qualified rights over the management and use of natural resources in the area defined. This will include the right to negotiate contracts with tourist operators wishing to build lodges or run safaris in the conservancy. However, MWCT will retain the final authority over offtake quotas, national regulations with regard to wildlife utilisation, and issues of national importance, such as standards over tourist facilities, specially protected species, and so on. MWCT will also retain the right to withdraw a conservancy status if the committee does not conform to acceptable standards of accountability. The conservancy policy is presently being discussed with two communities in the Kunene region and one in the East Caprivi. When the policy has been finalised it will be submitted to the Cabinet for approval.

8. CONCLUSION

From its small beginning in Kunene, the approach of community-based natural resource management has achieved considerable success, and is now developing into a national policy. With so much of Namibia's land area being communally owned, the long-term success of wildlife conservation in Namibia, including a number of endangered species, will revolve around the success of this policy.

22. MANAGEMENT OF WILDLIFE OUTSIDE PROTECTED AREAS IN KENYA: RELATIONSHIP BETWEEN LOCAL COMMUNITIES AND WILDLIFE RESOURCES

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1. INTRODUCTION

Formal wildlife conservation in Kenya dates back to 1898, when the first regulations were enacted to control indiscriminate hunting. Since this period, wildlife has been regarded as state property. Its conservation and use have been limited. While wildlife has benefited the nation economically, in terms of education, science, recreation and national pride, these benefits have been unevenly distributed. In the first instance, wildlife benefited Kenya's colonial settlers more than the country's original inhabitants. By the turn of the century, Kenya's élite were reaping enormous benefits from wildlife.

During this process, local people were alienated from their ancestral land and their resources. Protected areas were established at the expense of local people, often depriving them of their traditional economic livelihoods. Therefore, wildlife has historically been considered a *loss* rather than a *benefit* to most local Kenyans. The cost was borne not only through people's alienation from their land and resources, but also through wildlife damage to people, livestock and crops.

After Independence, the Kenyan Government began to pay nominal benefits to people residing adjacent to protected areas through a compensation system. This essentially paid people for the loss of livestock, crops and human lives. However, this system was inadequate and did not last long. Kenya's experience showed that compensation benefited few people and was subject to tremendous abuse, resulting in its abolition in 1989. Compensation for human injury caused by wildlife is today only Ksh 15,000, while for human death it is Ksh 30,000.

2. LEGAL MECHANISM FOR USING WILDLIFE

2.1. THE HISTORICAL BACKGROUND

Legislation for the protection and use of wildlife through controlled hunting in East Africa was enacted as early as 1898. These regulations were set out in the Official Gazette under the East African Protectorate. These regulations also defined boundaries of Game Reserves established for wildlife protection.

Subsequent regulations were enacted in full by Ordinances with amendments and by subsidiary proclamations and notices. The principal legislation now in force is the Wildlife (Conservation and Management) Act No 1 of 1976 (CAP 376). However, this has since been amended to allow the establishment of KWS (see below).

2.2. EXISTING LEGAL POLICIES AND LAWS FOR WILDLIFE MANAGEMENT AND UTILISATION

The creation of policy, law and institutions to use natural resources should be part of an evolutionary process that incorporates past experience, increasing knowledge and social attitudes. This approach requires that the views of all the stakeholders be taken into consideration.

In Kenya, no new thinking that takes into account the views of all stakeholders has been enacted since colonial times. Amendments to the existing Wildlife Act have continued to exclude local people, the major stakeholders, for the 30 years since Independence. The Wildlife Act was revised in 1989 to establish the Kenya Wildlife Service (KWS). However, the Act only alludes to the role of communities under section (3A) as follows:

- to provide wildlife conservation education and extension services to create public awareness and support for wildlife;
- to provide advice to Government, local authorities and landowners on the best methods of wildlife conservation and management;

- to be the principal instrument of the Government in pursuit of such ecological appraisal or controls outside urban areas as are necessary for human survival; and,
- to render services to the farming and ranching communities in Kenya necessary for the protection of agriculture and animal husbandry against destruction by wildlife.

The impression given by this section of Kenyan Law is that of a passive community waiting for the Government or its appointed agency to provide assistance. This assistance will come in terms of protection from wildlife and of benefits for not interfering with wildlife. Ownership of the resource was not discussed. Absolute powers were vested on the institution and none to the people. This provides a good example of Government laws enacted for the people, and not with or by the people.

During the first two decades after independence, the Government of Kenya experienced increasing difficulties in winning cooperation to protect wildlife. In late 1970s and early 1980s, poaching of major species of wildlife reached uncontrollable levels. The Wildlife Conservation and Management Department (WCMD) had lost control and were unable to protect both wildlife and tourists. By the end of the 1980s, the Government of Kenya had recognised the importance of local people to the survival of protected areas and the need to enlist their help in this regard. Therefore, Kenya Wildlife Service (KWS) was established, as a parastatal with semi-autonomy, with the following objectives:

- to conserve wildlife areas that are significant components of Kenya's protected areas;
- to protect wildlife and natural resources from damage by industrial, agricultural and other activities;
- to conserve and use wildlife in areas where it can be a component of an economically viable land use system;
- to increase economic and other benefits from wildlife (particularly for people in areas supporting wildlife); and,
- to protect people and their property from damage caused by wildlife.

An attempt has now been made to address this belated recognition of the people's role and of their need to benefit from wildlife. As part of its efforts to achieve the latter objectives, KWS created the Community Wildlife Service (CWS) as one of its departments. **The CWS is responsible for involving local communities in the management of wildlife**, even though there is no appropriate legal framework to meet this objective. In spite of all KWS efforts over the past two years, it remains unclear just what community participation in management entails, and who should be involved. This has been complicated further by the decision of KWS to share a portion of its revenues with communities tolerating wildlife on their land in an effort to gain their goodwill. Government, through its District Focus for Development (District Development Councils/DDCs), County Councils and communities, all rate themselves as major stakeholders in wildlife. Each seeks to justify their need to benefit from the revenue-sharing scheme.

Brief experience in initiating wildlife extension services in Kenya has shown that the major problem in establishing sustainable community conservation programmes is not the actual involvement of communities in the art of wildlife management. Rather, the problem is lack of a clear definition of the legal status of wildlife as far as ownership and use of the resource are concerned. Therefore, it is probable that the future of wildlife and indeed of protected areas in Kenya is dependent on two factors. First, on the involvement of local communities; second, on appropriate revision of existing legal policies and regulations.

2.3. KENYA'S POLICY TOWARDS WILDLIFE MANAGEMENT OUTSIDE PROTECTED AREAS

Kenya has moved a long way in her approach to wildlife conservation and utilisation since the turn of the century. At that time the Government recognised that wild animals constituted a part of the natural resources of the land which should be safeguarded and utilised in the process of development. However, the distribution of the benefits from wildlife was very uneven.

With the country having a very small population at the time, there was little concern about any conflict of interests between human and wildlife needs. When National Parks and Reserves were established between the 1930s and Independence, it was widely assumed that the empty wildlife dispersal areas would always remain as a permanent feature of Kenya's natural environment.

Within the context of this vision, it was not deemed necessary to consult the public on a subject that was thought to be too complicated to be comprehended by the local communities. Ironically, it is local people who are now the ones who have the last word on the viability of the migratory populations of wildlife everywhere in Africa.

Kenya's human population has increased to 24 million in 1989, from an estimated 6 million at Independence in 1963. Kenya's population will probably exceed 40 million by the year 2000.

Likewise, wildlife populations have increased since the ban on hunting in 1976. Additionally, since the creation of KWS in 1989, there has been a tremendous reduction in commercial poaching. As man continues to search for land to settle and farm, more and more pressures are placed on Kenya's wildlife habitat. These pressures result in major and growing human-wildlife conflicts.

Past history has not made wildlife an economic *asset* for the average Kenyan, rather a major *liability* to those who must live within wildlife's range. However, the commitment of KWS to change cannot be over-emphasised. Wildlife is a resource that must *pay* for itself to compete with other resources and to have any real future in the country.

The formulation of policies to guide the management of wildlife outside protected areas allowed KWS to recognise its inability to provide hands-on management. KWS does not have the manpower and expertise, or the intention, to manage wildlife everywhere. Therefore, its policies seek clear priorities. KWS also seeks delegation of responsibilities to communities, and to intermediaries (such as government agencies or non-governmental organisations) who can help to mobilise communities to utilise wildlife sustainably.

3. COMMUNITY INVOLVEMENT IN CONSERVATION

Relations between local populations and wildlife are complex, difficult to understand and extremely controversial. Until the colonial legislation labelled traditional hunting (subsistence utilisation of wildlife) illegal, game had constituted the major source of animal protein and in some instances the main source of food for most tribes in Kenya. Increase in human populations has put great pressure on protected land and generally on wildlife habitat. Policies to involve communities in the management of wildlife must attempt to address such survival issues beyond monetary gains (hand-outs) to communities. Lasting answers to basic, but pertinent, questions must be found. For example:

- Who should own wildlife outside protected areas?
- Who should be responsible for conserving wildlife?
- What contribution should the communities make, particularly in wildlife areas?
- What managerial skills are required?
- Who will provide these skills?
- How can wildlife become a local as well as national resource? and,
- How does wildlife compete among other natural resources?

These are crucial but pertinent questions that must be faced by wildlife managers and conservationists all over the world.

KWS recognised at its establishment in 1989 that the survival of its NPs and NRs depended very much on the support of the adjacent communities. In some cases, demands were made of those people that they tolerate wildlife at some cost to themselves.

The primary responsibility of KWS is to manage NPs and NRs. However, it is recognised that some of Kenya's protected areas, including the cornerstones for the tourism industry, depend for their survival on compatible management of adjacent areas. For example, animals migrate seasonally out of Amboseli NP into dispersal areas that are group ranches. Without access to this group ranch land, wildlife populations would crash and Amboseli would cease to be a tourist attraction. Several other protected areas, including the Masai Mara NR, Nairobi NP and indeed many protected areas in Kenya are similarly dependent on dispersal areas. Indeed, much of the tourism in the Masai Mara takes place on group ranches rather than in the NR.

If wildlife management is to be successful, communities must be encouraged by tangible and sustainable benefits. The new policies of community-based wildlife management and conservation

must provide these benefits to communities in a legal way and create a chance for sustainable wildlife conservation.

In attempting to answer some of these questions, KWS is developing strategies to shift rights, responsibilities and revenue earning to the landowners who conserve wildlife. The legal framework to achieve this objective must be addressed. To this end, KWS has contracted a legal study to review the existing Wildlife Act in view of the present policies and new approach to wildlife conservation. Ownership or legal *use rights* given to landowners must be beneficial. In other words, wildlife must pay for itself.

Wildlife management is a complicated and expensive endeavour that requires special skills. The process is long, frustrating and does not necessarily bear immediate tangible benefits. Most communities understand the philosophy of *here and now* and not ten years down the line. As part of its initial policy of shifting wildlife management responsibilities, KWS has committed to share its gate collections with land owners living adjacent to NPs and NRs (**Revenue-sharing**). County Councils are similarly encouraged to do the same.

4. BENEFITS AVAILABLE FROM WILDLIFE

4.1. THE ECONOMICS OF WILDLIFE

From the national perspective, there are good reasons for promoting wildlife conservation as an integrated land use option outside protected areas. In many of the drier areas making up about 80% of Kenya's surface area, a combination of wildlife management with other land uses will usually have higher economic potential than livestock alone. Such uses will include tourism, livestock, harvesting of forest products, and so on.

The economic perspective of an individual landowner, however, may be very different from that of the nation. The high economic returns from tourism will only influence land use decisions if the landowner receives a convincing proportion of these returns. Indirect or long-term benefits, such as protection of catchments, genetic resources or national heritage, do not rate highly alongside disposable income.

In Kenya, landowners in most key wildlife areas have received little or none of the revenue from tourism. Equally, landowners bear many wildlife related costs, such as predation on livestock, disease transmission to livestock, damage to crops, and increasing injury or death of people. Other means of economic benefits include consumptive uses, such as cropping for skins and meat, sport and trophy hunting. Such uses have been banned in Kenya for many years, after the authorities lost control of a hunting industry whose standards had declined to disgracefully low levels. Even when there was a hunting industry, very few local Kenyans living in dispersal areas received any tangible economic returns. Benefits were received as money earned for helping commercial poachers, or perhaps as meat supplied to farm labourers.

Colonial legislation labelled traditional hunting rights illegal. However, a tribesman in Kenya had difficulty understanding why hunting meat for his pot was poaching. Even 30 years after independence, traditional hunting for food is still illegal in Kenya.

4.2. REVENUE-SHARING

The central theme of the KWS policy for wildlife on private land is *the shifting of rights, responsibilities and revenues to the landowners who bear the cost of conserving wildlife*. As part of this policy, KWS has initiated a revenue-sharing programme through which a percentage of its gate revenues will be shared with communities living next to NPs and NRs in its management. KWS also intends to encourage county councils to do the same with communities adjacent to their reserves. **The prime purpose of revenue sharing is to establish dialogue and goodwill between KWS and communities.** The expected output is the establishment of Community Conservation Units and sustainable utilisation of wildlife on their land.

KWS has developed general principles for revenue-sharing:

- revenue distribution will be related to landowners' input;
- sharing revenue means sharing responsibility. At a minimum, KWS needs to be sure that any projects funded will not degrade the wildlife area;
- KWS reserves the right to decide who receives what from revenue-sharing;

- the mechanisms of revenue-sharing will be chosen by the beneficiaries, but KWS must be guaranteed of accountability; and,
- the form that revenue-sharing takes is to be decided by mutual agreement between KWS and the intended beneficiaries, subject to approval by the District authorities.

4.2.1. Amount of revenue for distribution: KWS must decide how much revenue to distribute on the basis of two factors. First, on how much is needed to achieve its purposes; second, on how much it can afford, given that it intends to become self-sufficient. In formulating its policy (Zebra Book) it had been hoped that the amounts needed for revenue-sharing were somehow arbitrary. The percentages proposed initially have unfortunately been politicised to an extent that they are likely to become *law*. However, revenue-sharing is now primarily calculated on the basis of the opportunity costs incurred by the landowners in the dispersal areas as a result of tolerance of wildlife. The opportunity cost is, roughly speaking, the additional profit they could make if they excluded wildlife from their land.

Although KWS should wherever possible meet estimated opportunity costs, it cannot afford to guarantee to do so. This is due to fluctuations in KWS revenues, and in the potential revenue from other land uses. Nevertheless, KWS cannot afford to ignore the level of opportunity costs. Thus, the effectiveness of revenue-sharing as an economic incentive to the landowner depends on whether it covers the opportunity cost. There is need for KWS to carry out major research to estimate opportunity costs and to take them into account in apportioning revenue.

In the meantime, KWS has made a commitment to share 25% of gate fee revenues with communities adjacent to protected areas. To improve planning and accountability, most communities would wish KWS to state in advance the amount of money that will be distributed around each NP. This also has advantages for KWS, provided that it avoids any risk of being unable to meet commitments in an unexpectedly bad year. Therefore, on an annual basis KWS sets out at an early stage the amounts to be distributed. The amounts are based on conservative estimates of expected revenues from gate fees from all parks.

4.2.2. Mechanisms for sharing: Revenue-sharing funds allow the real benefits from conservation of Kenyan wildlife to be shared with those most affected. To guarantee equitable distribution of funds, revenue-sharing allocations should carefully be worked out with communities, and in line with the District Development Committees and sub-DDC and government approval for projects.

Experience in implementing revenue-sharing on a pilot basis in the past three years, has shown that it is easier to work with organised groups than with scattered individuals. Until clear guidelines and procedures are developed and operational, revenue-sharing will emphasise the funding of community development projects, such as schools, water sources and so on. In some needy instances, activities such as school bursaries and salaries for game scouts are paid. KWS is encouraging people to form themselves into groups and associations, where these do not exist. These will facilitate cooperation and partnership, and ensure greater transparency and accountability when sharing revenue.

4.2.3. KWS experience with revenue-sharing: Since 1991 KWS has shared directly over Ksh 18 million (over US\$ 600,000 in 1991 terms) with communities (Table 1). In 1992–93 KWS set aside Ksh 13.4 million (3.5% of its gate receipts from adult non-resident park visitors). In 1993–94 the KWS revenue-sharing allocation increased to Ksh 36 million (9% of gate receipts from adult non-resident park visitors). To ensure sustainability, communities require time and assistance to identify and implement development projects. Therefore, communities are given an assurance that money, once allocated, will not be lost. In addition, KWS plans to avoid handouts by building its revenue-sharing programme gradually. KWS hopes to achieve the 25% target in 1996–97 fiscal year (see Table 1).

Funds provided through revenue-sharing have financed a wide range of projects. These range from building health clinics to helping group ranches build and maintain water sources; from providing funding for indigenous boat operators to assisting local porters and guides improve their tourism skills. KWS has also financed school bursaries, school extensions, salaries for local game

scouts and famine relief. Currently, KWS is providing support to communities in thirty three districts in Kenya.

Table 1: Funds allocated for revenue sharing. (Figures marked with * are based on projections by the Accounts Department, while US\$ equivalent for those years is calculated with a constant exchange rate of Ksh 55 to US dollar)

Year	Revenue share allocated (Ksh)	Equivalent (US\$)	Percentage
1991/2	4,000,000	72,727	(Pilot)
1992/3	13,400,000	243,636	3.5
1993/4	36,000,000	654,545	9.0
* 1994/5	85,500,000	1,554,545	15.0
* 1995/6	96,525,000	1,755,000	20.0
* 1996/7	134,250,000	2,440,909	25.0

4.2.4. Criteria for allocating revenue-sharing: Communities who qualify for revenue-sharing are rated on the basis of:

- the importance of the area as a dispersal zone for wildlife;
- the extent to which people suffer from wildlife damage;
- the amount of good-will and cooperation which exists between the community and KWS;
- the amount of revenues received by the NP or NR;
- the size of the community and the community's needs; and,
- the conservation value of the NP or NR.

A certain number of points are assigned to each of these factors. This determines whether or not a community qualifies for revenue-sharing and if so how much (see Table 2).

Table 2: An example of revenue allocation and sharing by area during 1993-94

Park or Reserve	Total score	Allocation of total funds (%)	Estimated share of revenue (Ksh)
Amboseli	47	15	5,400,000
Tsavo West and Chyulu	45	12	4,320,000
Tsavo East	46	12	4,320,000
Nairobi	40	7	2,520,000
Shimba Hills	35	4	1,440,000
Hell's Gate and Longonot	33	3	1,080,000
Meru Complex	33	3	1,080,000
Aberdare	28	3	1,080,000
Mt Kenya	27	3	1,080,000
Marsabit	28	3	1,080,000
Nasolo and S Turkana	26	3	1,080,000
Kirimon	25	2.5	900,000
Nakuru	25	2.5	900,000
Mombasa Marine Park	28	3	1,080,000
Malindi and Watamu	24	2.5	900,000
Kisite and Mpunguti	25	2.5	900,000
Diani and Chale	23	2.5	900,000
Kakamega	21	2.5	900,000
Mt Elgon	19	2	720,000
Sibilo	16	2	720,000
Kiunga	15	2	720,000
TRPNR	12	1	360,000
Ruma	16	2	720,000
Arabuko-Sokoke	17	2	720,000
Saiwa Swamp	6	1	360,000
Malka Mari	13	0	nil
Oi Doinyo Sabuk	6	2	720,000
		TOTAL	36,000,000

4.2.5. Accountability and transparency: All groups that receive assistance from revenue-sharing must demonstrate an open, transparent and representative form of governance. For example, officials should be elected and selected following clear, well-articulated rules and guidelines.

Means of disciplining members who do not adhere to the group or community guidelines and rules should be set out and well established.

To ensure some form of transparency and accountability, revenue-sharing is only given through organised groups in a community. These groups must be duly constituted and registered under the relevant Laws of Kenya, for example, Societies Act, Self help groups, Companies Act, and so on.

4.2.6. Major problems with revenue-sharing: Revenue-sharing is a strong positive step, which if taken a decade ago, could have led to radically different relations between Kenya's NPs and the neighbouring communities. On the other hand, there are many problems associated with revenue-sharing programme that need careful analysis. Some of the pitfalls are:

- a significant increase in cash income, especially if seen as a hand-out, could change peoples aspirations and lead to a change in land use;
- revenue distributed as cash to individuals is most effective in influencing people's land use preferences and meeting opportunity costs. However, such an approach is difficult to administer, politically sensitive and may not necessarily lead to enhanced community facilities or other recognisable products;
- if revenue is distributed to communities collectively for use on projects, not everyone benefits;
- failure to formulate acceptable, clear criteria and mechanisms for revenue-sharing and accountability will cause loss of goodwill and involve the agency in extra administration;
- revenue-sharing could create a positive relationship between a community and the wildlife area. However, it is likely to also cause negative effects in other communities that receive less revenue or no revenue at all; and,
- revenue-sharing may be taken for granted, as an automatic right, and the connection with wildlife and the agency be forgotten.

4.3. WILDLIFE UTILISATION

The first priority for KWS is the conservation of the NPs and NRs that it is required to protect by law. Outside protected areas, it is neither realistic nor necessary for KWS to adopt a hands-on management approach to all wildlife. KWS plans to achieve its stated goals, and to fulfill its obligations under the amended Wildlife Act of 1989, by delegating some responsibility and rights to use wildlife to competent landowners. In such cases, existing regulations will be reviewed to empower communities to view wildlife as an alternative land use. If this is satisfactorily achieved, KWS would limit itself to an advisory role, leaving the day-to-day management of wildlife to landowners.

To motivate people to conserve wildlife and use it for economic development, it is important that landowners to whom rights are delegated have adequate opportunity to benefit economically from good wildlife management. Therefore, it is KWS policy that landowners will:

- retain all the revenue that they derive from wildlife on their land, just as they do for other land uses such as livestock and agriculture. Once the industry is well developed, KWS will aim to cover the costs of supervision and administration, but not to profit from private wildlife ranching;
- choose the best way to use the wildlife for their own benefit, subject to approval by KWS.

4.3.1. Use rights: KWS has introduced wildlife use rights on a pilot basis. These allow people to use the wildlife on the land for tourism (non-consumptive utilisation) or where suitable for culling for meat and skins (consumptive utilisation). The pilot projects aim primarily: to allow reduction of wildlife-related costs incurred by landowners; to develop viable markets that allow utilisation of wildlife economically; and, to build KWS capability to oversee and control utilisation of wildlife.

Applicants for use rights are expected to prepare a basic plan for sustainable management of wildlife over an area that is large enough to be ecologically viable prior to grant of those rights. Many large-scale ranches in Kenya have applied and have been given use rights on pilot basis. KWS extension efforts focus on assisting communally owned ranches and small-scale landowners adjacent to some of these large-scale ranches to obtain use rights as a cooperative.

Where wildlife use rights are to be granted to a group of landowners, for example, a group ranch or an association of small-scale landowners, some basic organisation is required. KWS, through its extension programme, strives to assist such groups set up Wildlife Management Units (WMU).

Without any legal status for consumptive utilisation of wildlife, KWS has imposed additional constraints and conditions, particularly during the pilot project period as follows:

- consumptive use rights will only be granted to applicants who can demonstrate that they are adequately prepared to manage wildlife properly. Applicants are required to furnish information on the ranch, such as size, map of principal features, wildlife species and their numbers, and personnel.
- KWS reserves the right to specify permissible methods of utilisation, although in principal, landowners have reasonable freedom of choice in the form of utilisation. During this pilot project, KWS have the right to restrict the range of utilisation.
- use rights do not imply the right to exterminate wildlife.
- rights to consumptive use are only granted in respect of selected species.
- in dispersal areas of NPs and NRs and other major wildlife tourism areas, KWS will actively promote tourism development and will permit consumptive use only in areas remote from tourism activities.

By December 1993 quotas had been granted to a total of 32 ranchers; comprising 18 private ranches and 14 group ranches, companies or cooperatives.

4.3.2. Game farming: Game farming is the semi-domestication and husbandry of species such as ostrich, crocodiles, guinea fowl, insects, and so on. KWS is responsible for overseeing the development of this industry, because it concerns wildlife, but the programme is not given a high priority. However, game farming is an alternative form of wildlife utilisation from which communities can accrue benefits.

Game farming can have some impact on wildlife populations and on the economic status of communities involved. In some cases, it helps conservation by reducing illegal harvesting of animals to meet a market demand or by breeding an endangered species primarily for restocking. On the other hand, uncontrolled game farming can have the reverse effect by over-collecting animals from the wild to restock the farm or creating a market for illegal collection of animals from the wild. There are also veterinary problems.

In principle, KWS is committed to the expansion of game farming in Kenya where it is applicable and where it can benefit interested farmers. KWS collaborates closely with the Veterinary and Livestock departments of the Government in formulating appropriate regulations. KWS must hand over the responsibility for game husbandry to appropriate agencies such as the Ministry of Livestock, at an appropriate time. Presently 34 game farms have been established in Kenya. KWS encourages farmers to form associations to help with the management and control of the industry. (An Ostrich Farmers Association, KOPA, has been formed and registered).

4.3.3. Problem Animal Control (PAC): KWS considers it crucial for the long-term survival of wildlife in Kenya is that wildlife assumes a positive role in the lives of rural people sharing land with wildlife. An important aspect of developing this positive role is to minimise conflicts between wildlife conservation and legitimate human activities. Wildlife can be generally compatible with some forms of land use, for example, pastoralism and livestock ranching. However, in densely settled and agricultural areas, wildlife is a menace.

Conflict between people and animals is of increasing importance. In efforts to better control problem animals, KWS is improving its problem animal management capability by training PAC teams and making them more mobile. In some instances, communities have been encouraged to employ local game scouts to assist KWS in carrying out control work. KWS will organise appropriate training for them.

In areas of severe conflict, KWS is committed to establishing fences as an effective solution. Fence construction and maintenance are costly and require community support and cooperation. So far

KWS has, with donor and NGO support, erected nearly 400 km of fencing at the cost of Ksh 66.7 million. A further 400 km are expected to be erected from 1994 to 1997.

5. KWS APPROACH TO WILDLIFE EXTENSION

The idea of wildlife extension is not new in Kenya. In 1975 it was recognised that extension staff could play an important role in wildlife management (Session Paper No. 3, 1975). Hence, an Education and Extension section was established within the WCMD. However, its activities focused on education, and extension was confined to holding meetings with Government and local leaders. On a few occasions, community meetings were held. Even when a proposal for a national programme was made, some senior administrators in WCMD did not feel extension was an important component of wildlife management.

There is relatively little experience with wildlife extension in Kenya and widespread misunderstanding of what it entails. On the other hand there is tremendous experience with extension in other sectors, such as agriculture. Results of these extension ventures range from cost-effective successes to expensive failure. In planning its extension programme, KWS has drawn upon various lessons learned from these extension programmes.

Wildlife extension is simply considered as the process of stimulating activity relevant to community involvement in conservation issues and wildlife management outside protected areas. During the last two years, the Community Wildlife Programme has initiated various extension activities in key areas in Kenya, and is now trying many approaches and mechanisms to stimulate active community involvement. Some of the traditional approaches include:

- direct visits to the targeted individuals by Community Wildlife Officers;
- holding short training courses for groups of targeted individuals at specialised training centres;
- dissemination of educational materials to key individuals and groups;
- presentation of specific messages at meetings and *barazas*;
- providing exchange visits between various targeted groups;
- implementation of specific campaigns on technical issues among targeted groups;
- presentation of messages through the mass media;
- presentation of specific programmes and activities for children, youth and women through schools and other groups;
- lobbying decision-makers; and,
- supporting various enterprises for targeted groups and individuals through: the creation of markets for wildlife products; establishing cooperatives and other legally recognised groups for purposes of wildlife utilisation; and, provision of financial support either as loans for enterprise development or grants for community development.

6. CHALLENGES FOR COMMUNITY-BASED CONSERVATION

Practical experience shows that self-run development schemes are more likely to be successful. It is better for governments and other development agencies to work with local communities, and to arrive at development plans that both satisfy the needs and aspirations of their people while accomplishing their objectives. This is equally true of major development schemes requiring changes of traditional patterns of implementation, as it is with the creation of protected areas and management of wildlife outside existing protected areas.

Wildlife management is a complicated and expensive endeavour that requires special skills and expertise. Some of the skills are not readily found among local communities. The process of community-based conservation is therefore long, frustrating and more often does not bear immediate tangible benefits.

The problems and challenges encountered in initiating community wildlife related activities cannot be overstated. Successful community-based conservation programmes that hand over responsibilities and benefits to local communities results in empowerment. This section will outline some illustrative challenges, constraints and setbacks that the KWS has experienced during the past three years in its efforts to develop a functional community wildlife programme:

- **inadequate legal regulations:** The present Wildlife Act does not make adequate provisions for implementing a sustainable community-based wildlife conservation programme. In Kenya, most wildlife utilisation projects are covered under the powers vested upon the Director of Kenya Wildlife Service. Such an arrangement can only work if the *status quo* is maintained by the Government of the day. Furthermore, landowners do not have the inspiration to undertake heavy investments in high risk ventures;
- **change of attitudes:** Community attitudes towards wildlife and the institutions implementing wildlife conservation programmes have been hostile since colonial days, when their ancestral land was forcefully taken away and gazetted as protected areas. Even after Independence, the views of communities were not sought in the decisions to gazette NPs. Therefore, most Kenyans associate wildlife with losses rather than benefits. Likewise, previous approaches to wildlife management have caused District Wardens, who are responsible for implementing community programmes as Community Wildlife Officers, to be still resented by communities. Therefore, radical changes in the attitudes of both the communities and KWS staff must occur for the CWP to succeed;
- **extension programmes take long to develop:** Programmes to involve communities actively in wildlife conservation evolve slowly. Clear policies and guidelines are needed. Development of proper mechanisms to implement a community-based conservation programme in Kenya have taken long, sometimes at the expense of KWS credibility. Most communities understand the concept of *here and now*, not 10 years hence;
- **lack of appropriate skills in communities:** Even where communities are willing to collaborate in managing wildlife, the initiative is laborious, time consuming and costly to the implementing agency. Because of lack of previous involvement in conservation, appropriate skills have not been developed among the majority of the local Kenyans. Capacity building and skills development must be given priority;
- **politics and vested interests:** Successful community-based conservation programmes result in community empowerment. In amending the Wildlife Act in 1989, and formalising the creation of a CWP in KWS, the repercussions and cost to local politics was underestimated.

7. CONCLUSION

The future of protected areas and their wildlife in Kenya depends upon their relevance to the everyday social and economic needs and pursuits of surrounding communities. In the last several decades, Kenya has witnessed the spread of commercial agriculture and human settlement, combined with the conflicts created by early land legislation. As a result, wildlife has been eliminated from key areas.

Nevertheless, important populations of wildlife, including large mammals such as elephants, have increased. Wildlife must pay for its survival. Landowners adjacent to protected areas must see wildlife as a key land use alternative, compared to other forms of land use. This will enable landowners to recognise that the perpetuation of wildlife populations is not only inherently desirable, but also critical to their own self-interest.

KWS, through its CWP has gone a long way in involving communities in wildlife conservation. However, the programme is still in its infancy and is evolving. Its success will very much depend on many factors. Included among them are the following:

- the review of the present wildlife laws and regulations taking into account the needs of communities living with wildlife;
- development of clear policies and guidelines for the implementation of community-based conservation programmes; and,
- appropriate skills to implement wildlife related activities among community members and KWS staff.

23. CONFRONTATION OR COOPERATION: A CASE STUDY OF LAKE MBURO NATIONAL PARK, UGANDA

A.R. Mugisha and M. Infield

Lake Mburo National Park, Uganda

1. OVERVIEW

Lake Mburo National Park (LMNP) lies in a semi-arid area between approximately 31°E and 0.5°S. The area was known formerly as Nshaara, and was used traditionally as a pastoral area by the Bahima. The traditional institutions that controlled the use of this area hinged on the Ankole Kingdom. The King, *Omugabe*, had control through his appointed chiefs.

By the early 1940s these traditional management institutions were seriously compromised through Government policies aimed at promoting modern development. These policies showed no regard for indigenous local people whose livelihoods were heavily dependent on the natural resources. A Controlled Hunting Area was established in the 1930s, a ranching scheme was developed in the early 1960s, and the area was declared as a Game Reserve by 1964. In 1983 LMNP was gazetted, displacing many people in a very inhumane manner. Two major lessons should be learned from this situation:

- development policies that favoured outsiders had a disastrous affect upon the indigenous local people; and,
- each subsequent policy reinforced earlier polices in order to bring about a desired form of development that was later found to be in jeopardy because of the very policies.

It can be correctly argued that these policies failed because they lacked any vision of the needs of local people.

The management of LMNP is now reversing the situation, to change from a confrontational to a cooperative approach. It is hoped to achieve this through participatory planning with the local people for their resources. LMNP management aims to make development socially acceptable, ecologically sound and economically viable. Achieving these objectives will be a challenge, especially with increasing human populations, and poverty forcing people to eke out a living from marginal lands.

2. LAND USE

Land use policy should be geared towards identifying attainable conservation objectives and, if well applied, can minimise conflicts of interest. However, around LMNP there is no land use policy. As the traditional type of land use was seriously compromised, different types of unplanned land uses have emerged. Some of these uses are not sympathetic to the conservation goals of LMNP, and have increased conflict. Prominent land uses around the area include household-scale cultivation, cattle ranching and pastoralism (see Figure 1).

2.1. SYSTEMS OF LAND TENURE

In Uganda all land belongs to the Government. However, there are different types of tenure, particularly between northern and southern regions of the country.

In the 19th century, land in the Lake Mburo area was held under a common property regime. With Government intervention, different systems of land tenure evolved or were imposed. However, these latter systems were not understood by local people, who were not involved in their formulation and later implementation. As a result, modern development has sidelined indigenous people. Some of the following land tenure systems exist around LMNP:

- **private bibanja ownership** (small-scale) is closely associated with cultivators, who have immigrated to this area. As cultivators stay in one place, land is parcelled out over time, and each cultivator identifies himself with his piece of land. Enlightened owners aware of Government bureaucracy can acquire a leasehold title;
- **private leasehold ownership** is used by the ranches. Large areas of land, of at least 12 sq km, were parcelled out and leasehold titles processed for the owners. Titles have acted as

collateral security for development loans. This development strategy was out of reach of the local people, since pastoralists do not use banking institutions;

- **open access** developed as the traditional institutions were eroded. The establishment of alien systems of land tenure resulted in any land not under specific ownership becoming open access for marginalised local people. This open access system attracted outsiders to utilise common property resources, and encouraged resource degradation. This system is being phased out systematically at present, and the Government is trying to settle people on land with a leasehold type of tenure;
- **Government control** has been applied to the area of LMNP, and to a cross-breeding dairy ranch. However, the Government has failed to develop a comprehensive land use policy to lessen conflict and enhance sustainable development. Since Government intervention started, conflicting land uses have become common. A pertinent example surrounds the establishment of a Game Reserve in 1964, and the subsequent de-gazettement of part of the Game Reserve in 1969 to establish a cross-breeding dairy ranch for exotic cows. Lions and ticks were plentiful in the Game Reserve, and posed a formidable problem for livestock development. To solve this problem, Government decided to shoot all the lions that came to the ranch, and such oversights are being carried forward to this day.

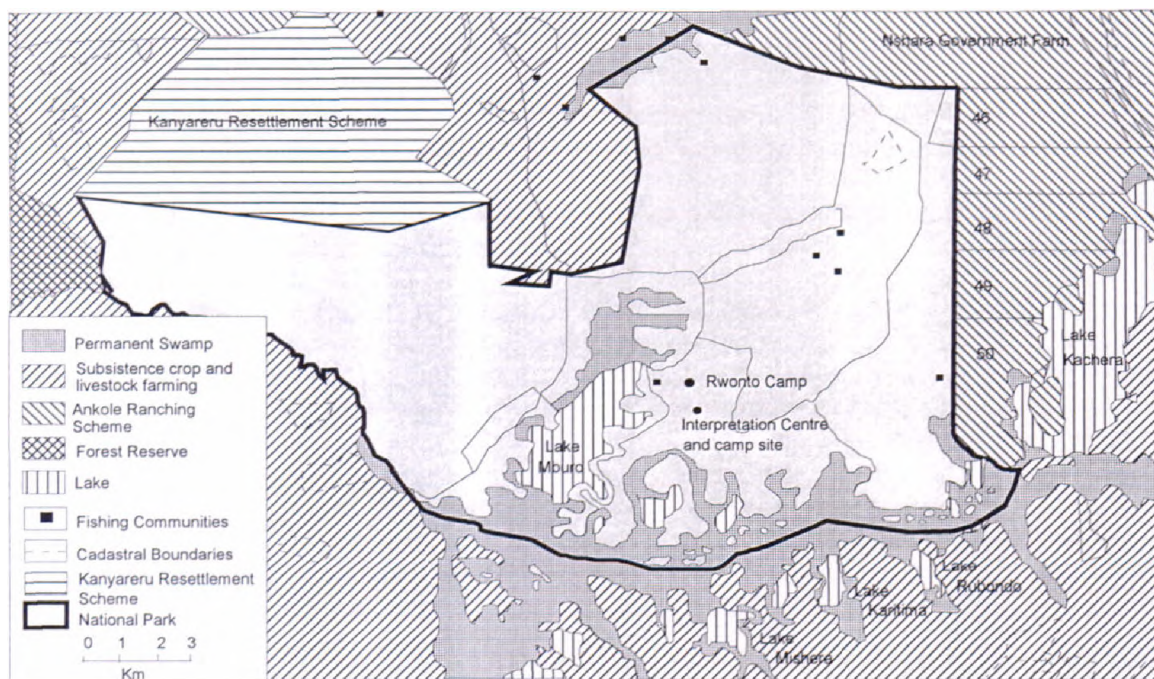


Figure 1: Forms of land use around Lake Mburo National Park

2.2. LEGAL MECHANISMS FOR LAND TENURE

A system of leasehold tenure is centralised under the Uganda Land Commission (ULC). Surveys are made and a title processed that is valid for a period, usually 49 years. With such a title, Government commits itself to lease out land for that period. When the title expires, the land reverts to Government, unless the lease is renewed.

Recent reforms have occurred in tenure systems around LMNP. Through presidential powers, the Government has acquired the title rights for the ranches by forming a body known as the Ranches' Restructuring Board. The Board has the power to take away some land from the ranchers, and to settle indigenous people who were made landless by earlier development policies. To date, the Board has achieved its goal through targeting the very disadvantaged traditional pastoralists. On the basis of the number of cattle, family needs, and ability to effectively manage land, different sized areas of land have been allocated to different families. To ensure security of tenure, the Government will give leasehold titles to resettled families through the ULC. The bureaucratic process will be handled by the Board. This will signify a major change of lifestyle for these pastoralists.

2.3. COMPATIBLE LAND USES

Traditional land users in and around the LMNP have included:

- pastoralists;
- small-scale cultivators;
- fishermen; and,
- hunters.

The biggest stakeholder users were pastoralists. Pastoralism is highly compatible with conservation, and indeed is probably the best form of land use considering the prevailing climatic and ecological factors. The Lake Mburo area has a low rainfall of 700 to 800 mm per annum, and a consequent lack of water. However, permanent water sources are found mainly within the present LMNP. Periodic rainfall encourages luxuriant pasture growth in drier areas, to which the pastoralists migrate. As surface water disappears in the dry season, pastoralists shift closer to the permanent water sources. This seasonal pattern of movement presents a rational way of utilising the resources. As cattle migrate to water sources during periods of drought, the pastures in the drier areas are subjected to reduced grazing pressure and can regenerate readily during the next rainy period. Wild ungulates follow similar patterns of movement in the present LMNP.

With changes in land tenure, the dispersal areas are being fenced off and/or cultivated. This problem must be addressed to achieve effective conservation of the area. The current changes are compromising the rotational use of fragile resources, while changes in lifestyle have brought significant changes in resources use. Cultivation will be introduced, but water could be a limiting factor. The best approach would be to justify the existence of wildlife on economic grounds on private land, but this would require a change of Government policy on wildlife. Government services and inputs might help people to tame harsh environmental factors. From the conservation perspective, cultivation should be discouraged, while the local cattle industry should be improved. Game ranching could also be promoted as a viable alternative, and run alongside the local cattle industry. If properly organised, game ranching could even discourage land fragmentation following changes in tenure.

Fishing is another important resource use, and forms an important source of protein for the local people. As a form of land use it has co-evolved with communities surrounding the lakes. A community elected committee is currently managing the fishing industry with full accountability to both the communities and to LMNP. However, one setback with this use is the fuel wood demand to process the fish. It is hoped that this problem could be mitigated through tree planting and technological innovation.

2.4. INCOMPATIBLE LAND USES

Agriculture and cultivation as a form of land use will have to be carefully thought about in order to minimise conflicts. Agroforestry and agriculture could be viable land-use options, since there is no big game like elephants in LMNP. However, other species, especially bushpig, baboon, buffalo and bushbuck, render land adjacent to LMNP unsuitable for cultivation. Traditionally, big ditches were dug around gardens to protect them particularly from bushpig. Unfortunately, much land is wasted in digging ditches, and it is labour intensive. Fencing could play a future role in lessening conflicts. A cheap, socially acceptable form of live fencing might be *Ceasalpine decapitate*, a thorny shrub climber, but its effectiveness can not be ascertained at the moment. As human population increases, agriculture will become more intensive, and may cause potential pollution from agrochemicals. LMNP serves as the water catchment system for the area, and would receive much of the resulting pollution. In addition, cultivation could isolate LMNP as an island by creating hard edges, for which there is no buffer zone to ameliorate.

Uncontrolled hunting is another important form of incompatible land use around LMNP. The Game Department (the Government body responsible for protection of wild animals outside NPs) has been unable to curb poaching. Indeed, at times it has even encouraged poaching through corruption, and this leaves wild animals open to over-harvesting. Such use is not sustainable and threatens the continued existence of wild animals in LMNP.

2.5 THE ROLE OF LAND USE PLANNING IN RESOLVING CONFLICTS

The importance of effective land use planning cannot be over emphasised. Conflicts arise as a result of competition for limited resources. Land use planning allows a rational framework for

decisions on issues such as land suitability and potential. Natural, economic and social factors can be considered, as a basis for rational allocation of resources, and for reducing conflicts.

Current conflicts seen in Uganda today can be attributed to lack of a comprehensive land use plan. Where such conflict exists, it intensifies as the human population increases. As tolerance to wildlife declines, wildlife loses, and the situation around LMNP is no exception. Without a proper land use plan, LMNP lacks a buffer zone and is being threatened by hard edges, with uses that are incompatible with conservation. LMNP management faces the challenge of integrating wildlife management in social and economic aspects of the community, to ensure future survival of wildlife.

3. PARTNERSHIP AND COMMUNITY-BASED CONSERVATION

The development and activities of the LMNP Community Conservation Unit (CCU) and the Lake Mburo Community Conservation Project (LMCCP) is an interesting case study of interactions between Government and community with respect to natural resource conservation.

3.1. BUILDING PARTNERSHIP AND TRUST BETWEEN WILDLIFE AUTHORITIES AND LOCAL COMMUNITIES

The history of LMNP since its creation in 1983 has set great barriers between the park authorities and local communities, for a number of reasons:

- all families resident within the area were evicted without compensation or explanation when the NP was created;
- LMNP was re-claimed with Government support by the people, and concerted efforts were made to destroy the resource;
- 60% of the LMNP area was de-gazetted, but the remaining 40% continued to be occupied by communities whose objectives were to see the entire area de-gazetted; and,
- sufficient Government support for LMNP ensured its survival on paper. However, on-going Government and Uganda National Parks (UNP) initiatives to relocate residents continue to foster suspicion and resentment.

The CCU, with support from LMCCP, has initiated several programmes to begin building a partnership, among which are the following:

- community development micro-projects, carried out through Support for Community Initiated Projects (SCIP), have assisted LMNP to demonstrate its role as a good neighbour, and provided tangible assistance to communities;
- an Environmental Education programme has informed people about the values of LMNP. Community interest in the general value of education has meant that this activity is warmly received;
- repeated community visits and dialogue have shown local people a new and unexpected face of LMNP authorities;
- advocacy for government interventions in community problems has shown the desire of LMNP management to assist people;
- LMNP management planning activities have been carried out through intensive consultations with local communities. The LMNP plan incorporated community concerns, leading to recommendations for the development of revenue sharing, community access to resources and a Park Management Advisory Committee (PMAC); and,
- involvement in community institutions (especially Resistance Committees) and establishing close ties with community leaders and political representatives has helped demonstrate that LMNP is part of the local scene.

3.2. PUBLIC RELATIONS

The activities carried out by the CCU can be viewed as exercises in public relations. They have certainly had an impact on the popular perceptions of sections within local communities. However, considerable progress still needs to be made to overcome the suspicion and negative attitudes resulting from the recent history of LMNP. It is equally true that fundamental changes in the way that many UNP officers, both senior and junior, view community relations have still to be achieved.

- The role of human communities in natural systems is still only partly understood. Communities are still reluctant to accept that their activities would destroy the values of

LMNP, if they remain unchecked. In contrast, UNP senior management and much of the scientific and conservation community in Uganda are unconvinced by the argument that LMNP's diversity is partially man-made. Hence, they remain unhappy that human interventions such as grazing, burning, and bush cutting could have a role to play in park management.

- general attitudes towards LMNP amongst political representatives at most levels, but especially at sub-country and district level, have been greatly improved through CCU activities. Individuals at village levels have been influenced, but it would be premature to suggest that there has been a significant and fundamental change in attitude towards LMNP.
- Recent steps towards the development of tourist infrastructure in LMNP have been carried out with total disregard to CC objectives, and this is highly regrettable. The opportunity to build CC principles into the concession agreements was ignored by both UNP and the investors despite efforts made by the CCU and LMNP authorities.

4. STRUCTURES

4.1. TRADITIONAL, VILLAGE, DISTRICT

The past twenty years of economic turmoil in Uganda has drastically weakened all government and community structures of their social and political control. The force of law, either western or traditional, is only now becoming a reality again. However, because of its weak state, many leaders are still reluctant to enforce legal and social control. Thus, there is still a tendency for strong individuals to make their own rules that are accepted by the weak. This is despite the considerable number of community and government structures and institutions that exist, as follows:

- **Resistance Committees** form the current structure for political representation and decision-making from the village to the district level. At village up to sub-country level the RCs have been given the authority to try civil cases. The CCU works with the RCs at all levels to mobilise and communicate with local people;
- **Elders** still form an important informal institution in rural communities and are involved and consulted in CCU activities;
- the system of government administration through **Chiefs** continues to hold authority in certain situations and are used in CCU activities;
- **special interest groups**, for example Women's groups, Parent Teachers Associations, Building Committees, and Traditional Healers Societies, have become an important focus of CCU activities. This began because the CCU wished to respond to community requests for assistance and to demonstrate willingness and good-will. It is proving problematic because of the inevitable piece-meal approach that results, and the temporary nature of some of these institutions;
- the CCU has encouraged the formation of **Wildlife Clubs**, under the Wildlife Clubs of Uganda. This is proving problematic because the WCU is still a weak institution and has not met the expectations of newly formed clubs;
- LMNP, through the CCU, and the project is strongly connected at District level and receives considerable political support. However, the District has taken its lead from the Government policy of decentralisation. Hence, the District is not encouraged to become involved in decision-making with regard to LMNP and its community institutions, because no control over revenue sharing funds is anticipated.

4.2. WILDLIFE AUTHORITIES AND OTHER SECTORS

As with many of Uganda's government institutions, the wildlife sector was reviewed and is in a state of flux. The former and current institutions involved in and around LMNP are:

- **Uganda National Parks (UNP)** was responsible for the management of LMNP, and UNP officers had the authority to pursue and search suspected law-breakers up to 5 km from the park boundary;
- the **Game Department** was responsible for the management and control of wild animals in the areas around LMNP, including responsibility for dealing with problem animals;
- the **Parish Chief** has authority to sanction community hunting of vermin species such as bush pig;

- the **Forest Department** is responsible for the management of the Chai Forest Reserve that borders a small section of the boundary of LMNP. Chai FR has been heavily encroached upon and receives little management control;
- the **Fisheries Department** is responsible for the management of fisheries and crocodiles. UNP and Fisheries Department are in conflict in LMNP and many other NPs over who has legal management authority over water bodies within NPs. Lake Mburu, which is entirely within the NP, is commercially fished. At present, UNP control the number of canoes operating, a locally based fisheries cooperative determine who should be allocated fishing licences, and the Fisheries Department issue the licences and regulate fishing activities.

Following a Presidential decree, UNP and the Game Department have been merged to form the National Parks and Wildlife Service. Though still under discussion, this service may be joined by the Forest and Fisheries Departments in a new Protected Area Authority under the Ministry of Natural Resources. This Ministry currently contains the departments of Minerals, Water, and Environment Projection.

The National Environment Action Programme (NEAP) which has recently been concluded in Uganda will probably lead to the development of a National Environment Management Agency (NEMA) under the office of the Prime Minister. NEMA will develop a network of Environment Officers at District level, attached to the District Administrators Office. The Mbarara Environment Officer will become a player in the management of LMNP.

5. MANPOWER

5.1. ROLE OF VILLAGE STAFF

At present, no village staff play a role in community-based conservation in and around LMNP. There has been reluctance for village staff to be engaged because:

- the level of resentment against LMNP has been too great to make it likely that they would be effective;
- UNP has been unable to provide financial support. A governing principle behind LMCCP activities has been that structures parallel to the park institution would not be established, as UNP would not be able to continue them after the project; and,
- the current CCU and park institution would be unable to service a village worker network adequately.

One of the three Community Extension Rangers (see 5.2) lives in the community. The effectiveness of this arrangement will be examined to see if it is appropriate for the CCU in LMNP.

Under the planned LMCCP Phase II, this policy towards involving villagers may change. Alternatively, the CCU may work through parish level Conservation Committees, the officers of which would become the main mobilisers at grass roots level.

5.2. ROLE OF WCC AND CERS

The CCU comprises a Warden Community Conservation (WCC) and three Community Extension Rangers (CERs). The Warden-in-Charge plays an active role in CC programmes and takes the lead in certain sensitive community related issues such as relocation, compensation, and land ownership. The Warden Community Conservation reports to the Warden-in-Charge, and manages the CERs. The WCC is responsible for:

- implementing and controlling SCIPs;
- designing and implementing education programmes;
- setting CC work programmes and initiatives; and,
- establishing and promoting all aspects of community dialogue.

The Community Extension Rangers report to the WCC, and are responsible for:

- day-to-day community dialogue;
- assisting in SCIP development, negotiation, and management; and
- assisting in the education programme.

6. TRAINING AND RECRUITMENT

6.1. VILLAGE STAFF

No village staff exist at present in the community conservation structure in LMNP. However, as part of the CC programme, training of individuals from local communities has taken place above and beyond the programme of community seminars organised and the Environmental Education Programme.

- Four villagers were sent for one month training courses in tree nursery management;
- three villagers were sent for a one month training course in improved traditional medicine techniques; and,
- twelve community members attended a two day workshop in community mobilisation techniques.

6.2. WILDLIFE AND NATURAL RESOURCES SECTOR STAFF

No formal system exists in Uganda for Community Conservation training.

- Informal training of the WCC and CERs has been achieved through informal sessions with the Community Conservation Advisor;
- on-the-job training has been the main training received by members of the CCU; and,
- park rangers and other junior staff receive periodic lectures on CC from the CCU staff and the Warden-in-Charge.

7. RELATIONSHIP BETWEEN LOCAL COMMUNITIES AND WILDLIFE RESOURCES

7.1. EXISTING LEGAL MECHANISMS FOR USING WILDLIFE

The existing legal mechanism controlling use of wildlife is silent about creating tangible economic benefits. A complete ban on all forms of hunting, except vermin, was instituted in 1978. This came about following concern by the Government over dwindling wildlife numbers, which was attributed to lawlessness, civil wars, and local utilisation of wildlife.

Many feel that the destruction of wildlife populations was the result of inappropriate or wrong Government policy. Government emphasis on the protection of resources within protected areas created a problem as far as people's attitudes towards wildlife outside these areas was concerned. The reasoning of local people was as follows:

- since wildlife belongs to the Government, and it is protected in protected areas, then wildlife outside these areas is not so important to the Government. As it is a nuisance, rural communities can go ahead and destroy it;
- Government imposition of top-down mechanisms for conserving soils, grazing, water catchment forests, and so on, has resulted in similar problems. Rural communities assume that the Government has and will take responsibility directly for these concerns.

The ban on hunting has not reduced the demand for bush meat, but merely rendered its utilisation illegal. However, promoting wildlife use outside protected areas may still be over-ambitious. Grave concerns have been expressed over the weakness in existing systems of controlling resource use, and the lack of community involvement in, and responsibility for, conservation measures. This is demonstrated through serious problems of soil erosion, deforestation, loss of biodiversity, wetlands reclamation, overgrazing, over-fishing and a general crisis in domestic energy. This all results in concern amongst Government officials that allowing wildlife use in the present climate might easily result in a situation that goes out of control. Problems of uncontrolled resource use are being exacerbated by increasing human populations, and the resultant poverty which NGOs and the Ministry of Environment are working hard to reverse.

7.2. PROPOSED LEGAL MECHANISMS FOR USING WILDLIFE

At the policy level, Government has proposed the following policy and legal mechanisms for institutionalising consumptive wildlife use:

- a comprehensive national strategy for participatory, sustainable development based on sound environmental management; and,
- promoting long-term economic growth, through sustainable natural resources management and use.

The guiding principle here is empowering traditional community institutions to regulate resource management. The land users must be fully involved and empowered to make decisions related to environmental issues. Wildlife will be managed to the extent that protection and control enables sustainable utilisation.

Non-consumptive utilisation of wildlife will encompass income generation through tourism. This will be done in cooperation with local communities that will share the benefits created by NPs through revenue sharing.

8. TYPES OF BENEFITS AVAILABLE

8.1. DIRECT BENEFITS

The following types of direct benefit are available from LMNP:

- revenue sharing from non-consumptive use of wildlife based on tourism. This provides a direct benefit to local communities around LMNP, through income earned. UNP have recently sanctioned a policy to share 20% of gross revenue with LMNP's neighbours;
- employment through the LMNP policy of working with the community in infrastructure development is seen as a positive contribution towards sound, sustainable development. Infrastructure, including roads, schools and clinics have been improved. Both parties, LMNP and the community, contribute to develop infrastructure through a SCIP process, each according to their means. Development of water dams to provide permanent water sources outside LMNP are part of the agenda, but is beyond the capacity of LMNP and the community to fund unassisted;
- education in schools around LMNP encompasses wildlife studies. Lectures based on research work and scientific field methods are demonstrated and transformed into reality in the park.

8.2. INDIRECT BENEFITS

These are mainly based on aesthetic values and natural ecosystems. They include climate amelioration and future generation concerns.

8.3. STAKEHOLDERS

Until recently, the LMNP area has been contested between the original local residents, who have been turned into landless squatters, and opportunistic land grabbers, and power hungry Government politicians and statesmen. However, the current Government attaches great importance to assisting very poor people, especially those who fell victims to the past Government's sponsored development policies and programmes (see 2.2). The policies that promoted the establishment of ranching schemes and Game Reserves, without catering for the interest of poor and marginalised people, have been rejected and overturned. At present, the politicians and other influential vested interests are rather silent.

The stakeholders now recognised by Government are the genuine, resident resource users. However, the Government has retained a stake in the resource, on behalf of the people of Uganda, through the conservation of LMNP. Improved political stability in the area has afforded LMNP management the opportunity to act freely, and choose the right people with whom to work. These are the people's democratically elected leaders, at the village and parish level.

8.4. MECHANISM FOR SHARING BENEFITS

LMNPs management and the AWF/UNP Lake Mburo Community Conservation Project have proceeded cautiously with development of this important scheme.

It is important to identify those who should benefit. The guiding principle is that those who incur costs of conservation should be those who benefit. Furthermore, it should be recognised that people have a right to share in the benefits. As the new scheme is developed, local people who benefit should be aware enough and empowered to press for their rights. Sensitisation and institutional capacity building should be carried out at the local level. Only in this way will it be possible to ensure that a community sense of responsibility towards the resource, grows to compliment the recognition of community rights.

This will be achieved through careful organisation of elections to, rather selection for, a PMAC. It is strongly believed that each parish neighbouring the park should be represented on this committee. For purposes of coordination with central government, District Officials will form a minority representation.

LMNP will play an advisory role on the PMAC, on behalf of Government, ensuring that benefits are soundly utilised and invested. However, the local community will have the ultimate say on the mechanism of the benefit sharing, and, within the context of responsibility, the ultimate say on what uses are made of shared revenues.

8.5. ACCOUNTABILITY, TRANSPARENCY AND SUSTAINABILITY

Accountability and transparency are necessary pillars for sustainable use of resources, including revenue sharing. This must be encouraged among all parties, both in Government and in local institutions. However, the original pastoralist society and economy have been vastly changed by infiltration of non-pastoral foreigners, and traditional resource management institutions have been eroded. Furthermore, the situation has been further compromised by Government development policies. Thus the overall responsibility of society may be difficult to reinstate. The challenge that now faces the CCU is one of assisting the development of community institutions that function effectively.

The diverse interests of different individuals often result in opportunists, who pursue personal gain rather than community benefits, and grasp power over community institutions. Opportunists are often outsiders who grab land, or a few community members with some degree of formal education, who are able to manipulate and corrupt government institutions. This causes problems of accountability for the very poor and politically weak members of society.

A system of benefit sharing that stands any chance of being sustainable will be socially acceptable and environmentally sound. Any benefit sharing schemes should recognise that the people who neighbour LMNP are not gratuitously destroying resources. Instead, people have been driven by past policies to recognise that they have but little choice to abuse the natural resources in their need for survival.

PART 5

OVERVIEW OF THEMES IN COMMUNITY-BASED CONSERVATION PLANNING

24. OPTIONS FOR COMMUNITY-BASED CONSERVATION IN TANZANIA, WITH SPECIAL REFERENCE TO POSSIBLE BENEFITS AND VILLAGE TITLE

Planning and Assessment for Wildlife Management

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1. INTRODUCTION

The need for local communities to participate in wildlife conservation in their own home area, and to receive legal benefits from wildlife-based activities, is no longer in doubt. Tanzania has several projects underway that involve local people living in and around conservation areas. These include projects in Ngorongoro Conservation Area, and around the Serengeti National Park, the Selous Game Reserve and around the National Parks and Game Reserves of the Greater Ruaha ecosystem (Kijazi, 1996; Maige, 1996; Krishke *et al.*, 1996; Hartley, 1996). These projects have made a promising start to the concept of community-based conservation in Tanzania. Village land is being demarcated and title deeds obtained, and quotas of animals are being issued to villagers in order to provide a legal supply of meat. Furthermore, TANAPA has institutionalised a Community Conservation Service at its headquarters and around several National Parks, which is promoting outreach to local communities (Bergin, 1996).

The subject of community-based conservation is exceedingly complex, and requires approaches on many fronts. This paper examines key options for future community-based conservation initiatives, specifically in relation to two areas of importance, namely possible direct benefits for local communities from wildlife utilisation and village titles. A necessary prelude to determining options for sharing benefits with local people from legal forms of wildlife utilisation is an analysis of the economic value of different forms of utilisation. Without a description of the possibilities, it is obviously not possible to determine the options. The paper discusses the following:

- the types of legal wildlife use carried out in different areas of Tanzania;
- the volume and economic value of the key elements in the wildlife sector, as a basis on which to assess possible options for sharing of benefits that could derive to local communities; and,
- the degree of advancement of villages in the process of achieving title.

2. TYPES AND ECONOMIC VALUE OF WILDLIFE UTILISATION IN TANZANIA

In Tanzania, many different forms of wildlife utilisation are now carried out, ranging from non-consumptive to consumptive uses. These uses include: game viewing both by residents and non-resident tourists; hunting by tourists and residents; live capture; cropping; trophy sales; crop protection; and, meat and trophy poaching. Most of these uses are carried out legally and bring in revenue, some of which is accountable. However, under the centrally controlled and legislated wildlife management system operating at present in Tanzania, these uses are of little direct benefit to local communities (Table 1). Crop protection is carried out legally but brings in no accountable revenue, yet is of direct benefit to local communities. Two other uses, trophy poaching and meat poaching, are carried out illegally and are also of direct benefit to local communities. However, trophy poaching is probably of less overall importance since the international trade in ivory was banned in 1989.

The forms of wildlife utilisation that can be carried out legally in different areas depend on the status of the area (Table 2). National Parks (NPs) only allow non-consumptive use of wildlife through game viewing. This form of use also predominates in Ngorongoro Conservation Area (NCA), although other forms of use are allowed by law in certain zones. While game viewing is allowed, and indeed occurs to a limited extent, in Game Reserves (GRs) and Game Controlled Areas (GCAs), consumptive forms of use predominate. Tourist hunting takes place mainly in GRs and GCAs, while resident hunting predominates in open areas (OAs). However, no distinction is made in law in the types of hunting that can take place in GRs as opposed to GCAs, and the distinction is not absolute in practice. Hence, some OAs are allocated to tourist hunting while resident hunting takes place in some GCAs. Live capture and cropping are mainly restricted to GCAs and OAs. Though not shown in Table 1, traditional use of non-wildlife resources through fishing (though as a vertebrate, fish are defined as wildlife) and bee-keeping, take place in, and add greatly to the value of, certain GRs and in GCAs (Table 2).

Table 1: Forms of wildlife utilisation, their legal and economic status, and degree of benefit to local communities under centrally controlled and legislated wildlife management systems.

Form of utilisation	Legal and economic status			Benefit to local communities		
	Legal with accountable revenue	Legal without accountable revenue	Illegal	Full	Partial	Employment , and so on
Game viewing	+					(+)
Tourist hunting	+					(+)
Resident hunting	+					(+)
Cropping	+				+	(+)
Live capture	+				+	
Trophy sales	+					
Crop protection		+		+		
Trophy poaching			+		+	
Meat poaching			+	+		

Table 2: Categories of protected area and of open areas, their settlement by humans, their administrative jurisdiction, and the predominant (and lesser) forms of wildlife utilisation practiced within them.

Category of PA and OAs	Human Settlements	Administration	Legal Uses of Wildlife
National Parks	No	TANAPA	Game viewing
Conservation Area	Yes	NCAA	Game viewing (Cropping)
Game Reserve	No	WD: National Projects Region: others	Tourist hunting (Game viewing) (Traditional use)
Game Controlled Area	Yes	Region	Tourist hunting (Resident hunting) (Game viewing) (Cropping) (Live capture) (Crop protection)
Open Area	Yes	Region	Resident hunting (Tourist hunting) (Cropping) (Live capture) (Crop protection)

The economic value of the different forms of wildlife utilisation in Tanzania was assessed in the late 1980s (ITC/IUCN, 1989). Estimates of off-takes and volumes suggested that the gross value of wildlife use to Tanzania was US\$ 128.5 million per year (Table 3). Nevertheless, this was a very crude estimate, because of the difficulty of estimating the scale of illegal use, thought to account for US\$ 60 million, or around half of the total value. Because the ivory trade was banned in 1989, the economic value of illegal use may since have declined. On the other hand, certain other forms of illegal use were not taken into account. For example, several legal forms of wildlife utilisation can also have illegal components, through false declarations, false certification, under-invoicing and non-remittance, and this revenue may well not accrue to Tanzania. One example is the live bird trade that features as an important component of live exports and was believed to be the second most valuable form of wildlife utilisation in the late 1980s (Table 3). However, a detailed study of this trade showed that only US\$ 190,000 accrued to Tanzania in 1990 (Planning and Assessment for Wildlife Management, 1996d).

While crude, the estimates from the late 1980s (Table 3) provide a very useful stepping stone for the present analysis, where some more accurate and up-to-date data are presented on the performance of the wildlife sector. Two main aims of community-based conservation are to provide local people with benefits from legal and sustainable forms of wildlife utilisation and to reduce illegal

and unsustainable use. Hence, this paper examines the levels and economic value of various forms of legal utilisation of wildlife, particularly through game viewing and tourist hunting.

Table 3: Rough estimates by ITC/IUCN (1989) of the economic value of alternative types of wildlife utilisation in Tanzania (figures in US\$ million)

Utilisation Type	Gross Value	FOREX Revenue	GOT Revenue	Profit Margin	Offtake (No. of Animals)
Legal:					
Cropping	0.5	0.2	0.5	Low	4,000
Sport hunting	10.0	10.0	3.3	High	4,000
Resident hunting	3.0	-	0.2	High	30,000
Crop protection	0.5	0.5	0.5		7,000
Live exports	17.5	17.5	0.1	High	Very high, especially of birds
Wildlife tourism	33.0	25.0	2	High	None
Ivory trade	4.0	4.0	4	High	1,400
Subtotal	68.5	57.2	10.6		46,400
Illegal:					
Ivory trade	10.0	10.0	-	High	10,000
Meat poaching	50.0	-	-	High	400,000
Subtotal	60.0	10.0	-		410,000
Total	128.5	67.2	10.6		456,400

2.1. METHODS

2.1.1. Game viewing: Both Tanzania National Parks (TANAPA), Ngorongoro Conservation Area Authority (NCAA) and the Wildlife Department collect data on game viewing by non-resident tourists and residents. TANAPA has compiled data for each NP from 1987–88 to 1991–92 as: (i) visitor days (by residents, both citizens and non-citizens, and by non-residents); and, (ii) revenue generated by TANAPA (from combined fees charged to all visitors for entry, vehicle, camping and huts) (TANAPA, 1993). NCAA has compiled data from 1988–89 to 1992–93 as: (i) numbers of resident and non-resident visitors; and, (ii) revenue generated by NCAA (from both resident and non-resident visitors for gate, vehicle, camping and other fees) (NCAA, communicated to Planning and Assessment for Wildlife Management). WD has compiled data for the Selous GR from 1988–89 to 1992–93, as: (i) number of visitors and of visitor days (by residents and non-residents); and, (ii) revenue generated by WD (from both resident and non-resident visitors for gate, vehicle and other fees) (Selous Game Reserve Annual Reports). The available data do not include the very small volumes of tourists visiting other GRs (Rungwa and Mkomazi) nor wildlife-based tourism occurring outside NCA, NPs and GRs. This could include game viewing that is at present specialist, for example for walkers or ornithologists, in GCAs or in Forest Reserves.

A number of assumptions and estimations were required to make an assessment of the volume and potential earnings of the tourist game viewing industry. The first requirement was to convert all game viewing data to the common currency of numbers of visitor days. This required the assumption that a visitor spent an average of two days in NCA (based on information supplied to Planning and Assessment for Wildlife Management). The second requirement was to make conservative estimates of the amounts earned by the private and parastatal lodges and tented camps operating in the game-viewing areas during the 1991–92 season. This required estimates of the proportion of visitors, both non-resident and resident, who would stay in these lodges (Appendix 1). These estimates were based on differences in the accessibility, and on personal knowledge, of the areas. Travel agents also provided data on accommodation costs for lodges in each area and on average meal costs for non-residents and residents. The costs per person were

averaged as the single, double and triple room rates for all lodges for which data were available, and assuming all guests would have two additional meals. The estimated lodge earnings were derived by multiplying the number of visitor days by the assumed proportions staying overnight in lodges and the average lodge and meal price.

2.1.2. Tourist hunting: Data were compiled from tourist hunting permits for the 1988 to 1992–93 hunting seasons, as described previously (Planning and Assessment for Wildlife Management 1996a, b, c).

2.1.3. Resident hunting: Data were compiled from resident hunting permits from the 1992 season. Copies of all permits issued from the districts are sent to the regional HQ and thence to Wildlife Department HQ, where the data were compiled. Unfortunately data for 38 out of 85 districts were not available (Appendix 2), though it is possible that some of these districts may not have provided data because there is no actual resident hunting. Because it is not known whether the lack of data means no hunting or no data, the results presented here must be regarded as conservative estimates of the extent of legal resident hunting. The economic value of resident hunting was calculated by multiplying numbers of animals shot by citizens and non-citizens by the appropriate game fee (Appendix 3). It was assumed that most residents would hunt close to their home, so no estimates were made for accommodation or daily rates, as is done for both game viewing and tourist hunting, respectively.

2.2. OVERALL PERFORMANCE

Both the game viewing and the tourist hunting industries are increasing steadily in terms of volume (Figure 1). Game viewing has increased from some 400,000 to 550,000 visitor days between the late 1980s and early 1990s. This total includes growth in numbers of both non-residents and of residents visiting the wildlife areas. Tourist hunting has increased from a total of around 4000 hunting days in 1988 to 10,000 days in the 1992–93 season (Planning and Assessment for Wildlife Management, 1996b). Given that these are the most important legal forms of wildlife utilisation in economic terms, this growth provides encouraging signs that the sector can contribute more fully to Tanzania's economy. The volumes and economic value of particular components of the sector are now examined for certain years.

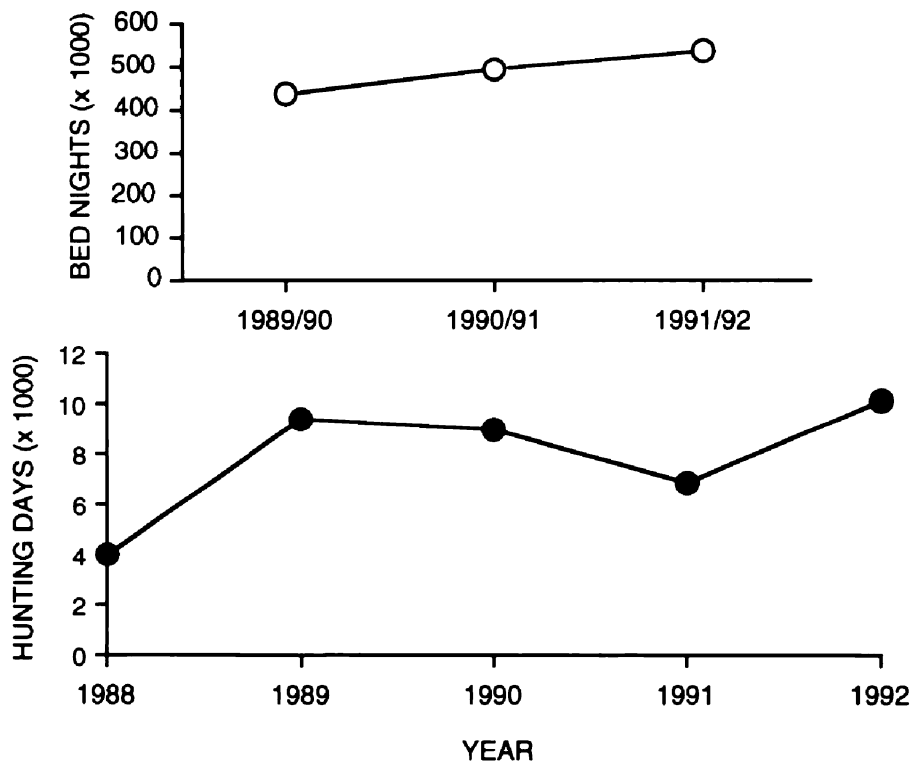


Figure 1: Total visitor nights for TANAPA, WD and NCAA, and total hunting days by tourist hunters in Tanzania from 1988 to 1993

2.3. THE ECONOMIC VALUE OF GAME VIEWING

Game viewing takes place in at least 13 protected wildlife areas throughout Tanzania (Figure 2; Table 4). A variety of scenery and wildlife that is unsurpassed in Africa is available for the visitor to these areas. The various wildlife authorities that administer game viewing (Table 2) charge visitors a range of fees for entry, vehicles, aircraft landing, and for use of their camp sites and huts. These fee scales differ for non-residents and for resident non-citizens and citizens. Furthermore, most game viewing areas support a number of lodges, tented camps and other visitor facilities that are operated by private enterprise or parastatals in the tourist sector. The economic value of the game viewing industry has been estimated for the financial year of 1991–92. This required various assumptions on the proportions of visitors staying in private and parastatal lodges and camps, and using the average bed and meal price for each area (Appendix 1). On this basis, the overall potential economic value of the game-viewing industry is around US\$ 20 million per year. This figure is made up of around US\$ 7.25 million in fees accruing to the wildlife authorities and US\$ 12.75 million earned by lodge owners using the game viewing areas (Table 4). Therefore, the private sector derives greater economic benefits from the industry than do the wildlife authorities, as is also the case with tourist hunting (see section 2.4).

The overall figure of US\$ 20 million is lower than the gross figure suggested in 1989 (compare Tables 3, 4). The present estimate makes a number of assumptions that it would be preferable to have been able to verify. Nevertheless, this is probably a more accurate estimate of the potential value of game viewing at the level of the protected areas than made hitherto (Table 4). The figures so derived match the approach used to calculate the potential economic value of tourist hunting (see section 2.4). However, it is likely that the figures are conservative estimates. Hence, the figures do not include charges for game drives, single room supplements, drinks and many other services provided by lodges and as the luxury end of the market is most probably under-represented. Furthermore, these estimates do not include any multiplier effects. These might include the revenues received by international airlines and local air charter companies, costs of staying in hotels at the beginning and end of the safari, souvenirs, tips to camp and other staff. Despite the incomplete nature of the calculations, the figures presented here provide a guide to the potential economic value of game viewing to Tanzania's wildlife economy.

On a geographical basis, the game viewing industry is concentrated on NCA and on the NPs in the north of Tanzania (Figure 2). NCA received around 50% of the visitor nights and of the estimated total earnings from game viewing in 1991–92 (Table 4). The NPs on the northern circuit received around 40% of the visitor nights and of the estimated total earnings. Meanwhile, the NPs and Selous GR on the southern circuit received around 10% of the total visitor nights and estimated total earnings.

These figures have two major implications for community-based conservation. First, NCA is the only major game viewing area with a settled human population, and has considerable potential to provide benefits to the people living within its borders. Second, game viewing at present has little potential to provide direct financial benefits to local people living around the unoccupied protected areas in southern Tanzania. This situation is unlikely to change without considerable infrastructural development of the southern circuit. However, even with this investment, fewer visitors are likely to be attracted to view game in the wooded south than in the open savannah and plains game areas of northern Tanzania.

2.4. THE ECONOMIC VALUE OF TOURIST HUNTING

Around 131 hunting blocks are devoted to tourist hunting throughout Tanzania. The total number of tourist hunting blocks are almost equally divided between land under Department of Wildlife control, not settled by humans, and land under regional control, settled by humans (Figure 3; Table 2). A range of 70 species of big game (67 mammals, plus crocodile, ostrich and python), as well as a variety of game birds are available to the tourist hunter in Tanzania. A range of fees, payable in US\$, is charged by the Department of Wildlife. These include: a game fee for each animal shot; a conservation fee charged on a daily basis according to safari length; and, fees for observers, trophy handling and a hunting permit (Planning and Assessment for Wildlife Management, 1996a). Tourists are taken hunting by private (and, in one case, parastatal) outfitters who have the concessions for particular blocks and who are responsible for the conduct of the safari. Outfitters charge a daily rate to their clients.

Figure 2: Fees for game viewing collected from all National Parks, the Ngorongoro Conservation Area and Selous Game Reserve in 1991-92. Each dot represents \$1500

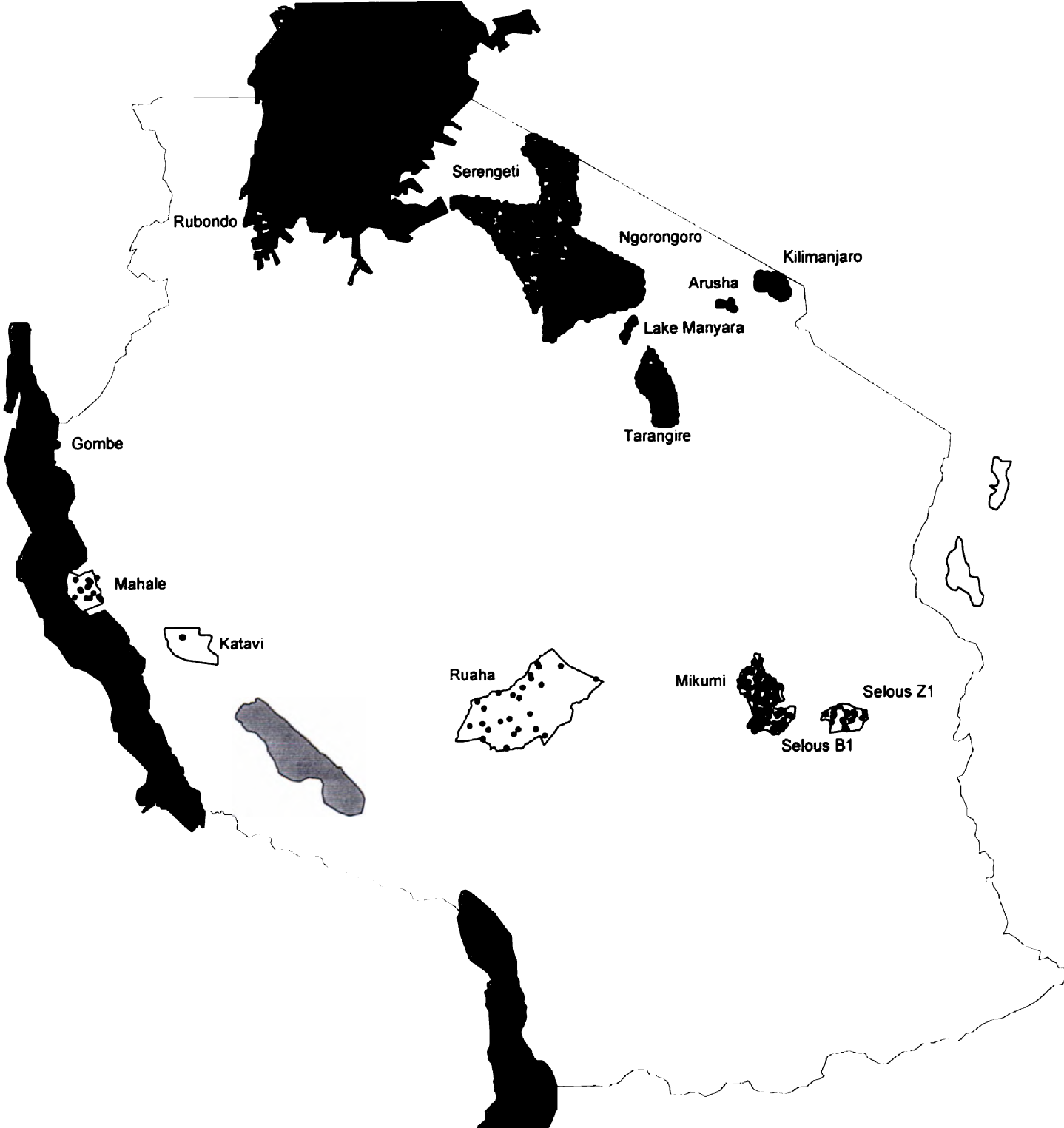


Table 4: Numbers of visitor nights made by game viewing tourists to different protected areas in 1991-92, shown with total fees accruing to the respective wildlife authority, plus an estimated total of lodge earnings, all summed to give the total potential earnings of the game viewing industry.

Area	Days		Total fees		Estimated lodge earnings		Estimated total earnings
	Non-resident	Resident	Non-resident	Resident	Non-resident	Resident	
Ngorongoro CA	151,376	122,948	\$2,253,295	\$152,237	\$5,404,123	\$2,000,980	\$9,810,635
Serengeti NP	42,378	46,116	\$1,609,697		\$1,512,895	\$839,311	\$3,961,903
Lake Manyara NP	40,199	17,728	\$706,005		\$809,005	\$235,782	\$1,750,792
Tarangire NP	14,950	16,332	\$420,950		\$606,970	\$342,972	\$1,370,892
Arusha NP	5521	5684	\$158,095		\$253,414	\$11,766	\$423,275
Kilimanjaro NP	11,024	885	\$1,620,360		\$66,144	\$354	\$1,686,858
Rubondo NP	27	100	\$5690		----	----	\$5690
Gombe NP	844	540	\$53,974		----	----	\$53,974
Katavi NP	17	527	\$2092		\$4250	\$79,050	\$85,392
Mahale Mts NP	151	22	\$21,482		\$37,750	\$3300	\$62,532
Ruaha NP	585	1947	\$36,780		\$31,590	\$47,700	\$116,070
Mikumi NP	2856	14,957	\$205,273		\$142,800	\$120,404	\$468,477
Selous GR	2803	2302	\$34,046		\$189,203	\$108,194	\$331,443
Total	272,731	230,088	\$7,279,976		\$9,058,144	\$3,789,813	\$20,127,933

The numbers of hunting days sold have increased from 1988 to 1992–93 (Figure 1), and so too have the numbers of most species of animals hunted (Table 5). The exception is numbers of elephants hunted, which have declined along with their population size and alteration in age and sex structure following the years of illegal exploitation for ivory.

Table 5: Total numbers of various species shot by tourist hunters throughout Tanzania during 1988–92/93. *The total number of animals refers to all animals shot including those not listed in the table (Planning and Assessment for Wildlife Management, 1996b)

Species	1988	1989	1990	1991	1992
Elephant	59	50	15	12	18
Lion	106	204	210	165	222
Leopard	98	194	214	145	214
Greater kudu	55	80	94	67	87
Lesser kudu	33	44	55	53	80
Gerenuk	21	41	53	59	89
Oryx	49	72	83	71	111
Sable	86	127	141	126	127
Roan	37	45	52	60	61
Buffalo	269	502	544	459	736
Zebra	216	431	463	279	459
Total animals*	2865	5414	6051	7110	7034

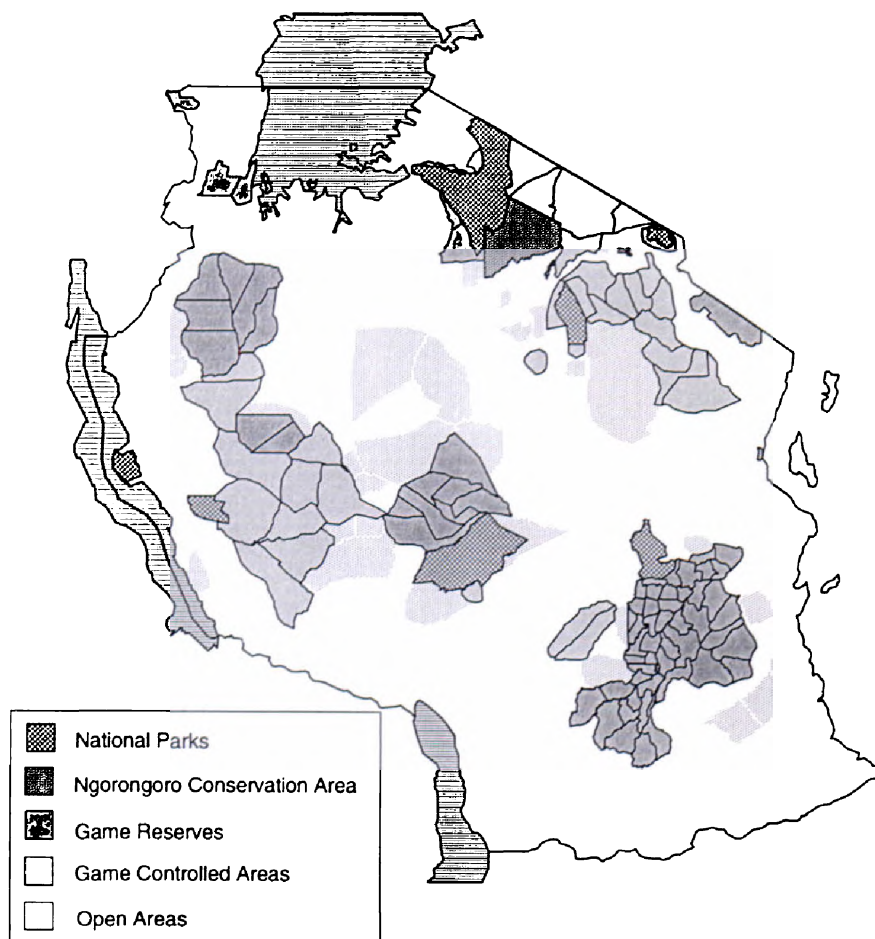


Figure 3: The distribution of tourist hunting blocks within Game Reserves, Game Controlled Areas and open areas.

Certain species are almost exclusive to tourist hunters in Tanzania, for example gerenuk, lesser kudu and oryx. Other species hunted are of general importance to the African safari, for example the large cats and buffalo. Both groups make large and fairly steady contributions to game fees earned for Tanzania. Unsurprisingly, elephants have contributed increasingly less to game fees (Table 6).

A conservative estimate of the total potential value of the tourist hunting industry to Tanzania has been made by adding the potential fees paid to the estimated daily rates. The potential value of the tourist hunting industry in Tanzania has increased from US\$ 4.6 million to US\$ 13.9 million from 1988 to 1992–93 (Table 7). Outfitters have been obliged only to bank 55% of the daily rate in Tanzania since 1989. Hence, potential earnings actually accruing to Tanzania can be estimated using the appropriate figure in Table 7. Accordingly, the potential of tourist hunting has increased in terms of money that should have been banked in Tanzania from US\$ 6.7 million in 1989 to US\$ 10.1 million in 1992.

Table 6: The percentage contribution of a number of species to total game fees in the period 1988-1992/93 (Planning and Assessment for Wildlife Management, 1996b)

Species	1988	1989	1990	1991	1992
Elephant	11%	6%	2%	2%	2%
Lion	12%	13%	13%	13%	12%
Leopard	11%	12%	13%	11%	12%
Greater kudu	4%	3%	3%	3%	3%
Lesser kudu	2%	2%	2%	3%	3%
Gerenuk	1.5%	1.7%	2%	3%	3%
Oryx	2%	1.8%	2%	2%	3%
Sable	6%	5%	5%	6%	4%
Roan	2%	1.2%	1.4%	2%	1.5%
Buffalo	9%	9%	10%	11%	12%
Zebra	6%	7%	7%	6%	8%

These figures are of similar magnitude to those suggested in the late 1980s (Table 3). However, as with game viewing, present calculations (Table 7) provide a conservative estimate of the potential earnings of the industry, given that they do not include various fees charged, nor any multiplier effects. For example in terms of fees, the police charge \$100 per weapon registered with them by a tourist hunter. Another example of a fee not included are those paid voluntarily by tourist hunters participating in the Cullman Reward Scheme around Maswa Game Reserve and other hunting areas. The importance of such payments cannot be over-stressed given that they are directly benefiting individuals in a local community. Despite their incomplete nature, however, the figures certainly provide a guide to the sustained growth shown by, and the potential value of, tourist hunting to Tanzania's wildlife economy.

Table 7: The growth of tourist hunting in Tanzania expressed as the number of hunting days, the game and other fees earned, and the daily rate, all summed to give the total potential earnings of the industry from 1988-92-93. The estimates of the daily rate for 1988 are not divided because the requirement that 55% of the daily rate be banked in Tanzania did not come into force until 1989 (Planning and Assessment for Wildlife Management, 1996b)

Year	Hunting Days	Game Fees	Other Fees	Daily Rate (55%)	Daily Rate (45%)	Total Earnings
1988	4028	\$1,252,386	\$0	N/A	N/A	\$4,676,186
1989	9352	\$2,198,506	\$122,600	\$4,372,060	\$3,577,140	\$10,270,306
1990	8983	\$2,342,390	\$196,700	\$4,199,553	\$3,435,998	\$10,174,641
1991	6892	\$2,584,455	\$1,219,100	\$3,222,010	\$2,636,190	\$9,661,755
1992	10141	\$3,600,260	\$1,740,350	\$4,740,918	\$3,878,933	\$13,960,461

Tourist hunting is a lucrative form of wildlife utilisation that is widely practiced in settled areas, with considerable implications for community-based conservation. The proportion of tourist hunting trophies shot in different categories of land, and the amount of revenue that is derived from settled areas compared with unsettled GRs, supports this implication. Similar numbers of the various species that are important in contributing to Tanzania's tourist hunting earnings are killed in GRs and in settled areas (Table 8). However, there are exceptions to this. More elephants are hunted in GRs than outside, and therefore elephants do not at present have the potential to contribute to community-based conservation projects as they do, for example, in Zimbabwe (Bond, 1994). Equally, many more gerenuk, lesser kudu and oryx are hunted in GCAs and OAs than in GRs. The end result is that similar totals of game fees derive to Tanzania from settled areas as from unsettled GRs (Table 8). Hence, tourist hunting has considerable potential to contribute equally to the conservation of GRs and to local communities living among wildlife in GCAs and OAs.

It is also important for community-based conservation that earnings from tourist hunting are considerably more evenly spread across Tanzania (Figure 4) than are those of game viewing (Figure 2). The analysis is based on game fees from the 1992–93 hunting season in individual hunting blocks. However, the earning potential of some areas could be improved with better management, while other areas not previously developed or managed for tourist hunting could now be included in this activity. For example, areas may already be allocated as blocks but remain insufficiently utilised due to their remoteness. Equally other areas may still be in need of development as blocks and at some future time be available as areas for community-based conservation schemes. Because there are smaller numbers of tourist hunters, and they wish to hunt in remote wilderness areas, relatively little infrastructure is needed to develop new areas for tourist hunting, compared with game viewing.

2.5 THE ECONOMIC VALUE OF RESIDENT HUNTING

Licences for resident hunting are issued primarily for OAs, though some are issued for GCAs. A range of 22 animals and a number of bird species are available to the resident hunter in Tanzania. Two different fee scales operate for resident hunting, one for citizens and the other for non-citizens, both payable in Tsh (Appendix 2). In 1992, a total of 5285 animals was requested from the 47 districts out of 85 for which there were data. The majority (92%) of these requests were by citizens from urban areas (Table 9), and buffalo and various antelopes were the most numerous species shot. The fees collected from resident hunting from the 47 districts amounted to an equivalent of US\$ 39,988 and the majority of these came from citizens (69%). However, with the differential pricing structure for citizens and non-citizens, the latter shoot a very low proportion of the animals but contribute a higher proportion of fees (8% vs 31%). The geographical distribution of fees accruing from resident hunting are shown in Figure 5. Of those districts and regions for which there are data, the majority of resident hunting revenue accrues from the districts in Arusha, Pwani and Mara regions.

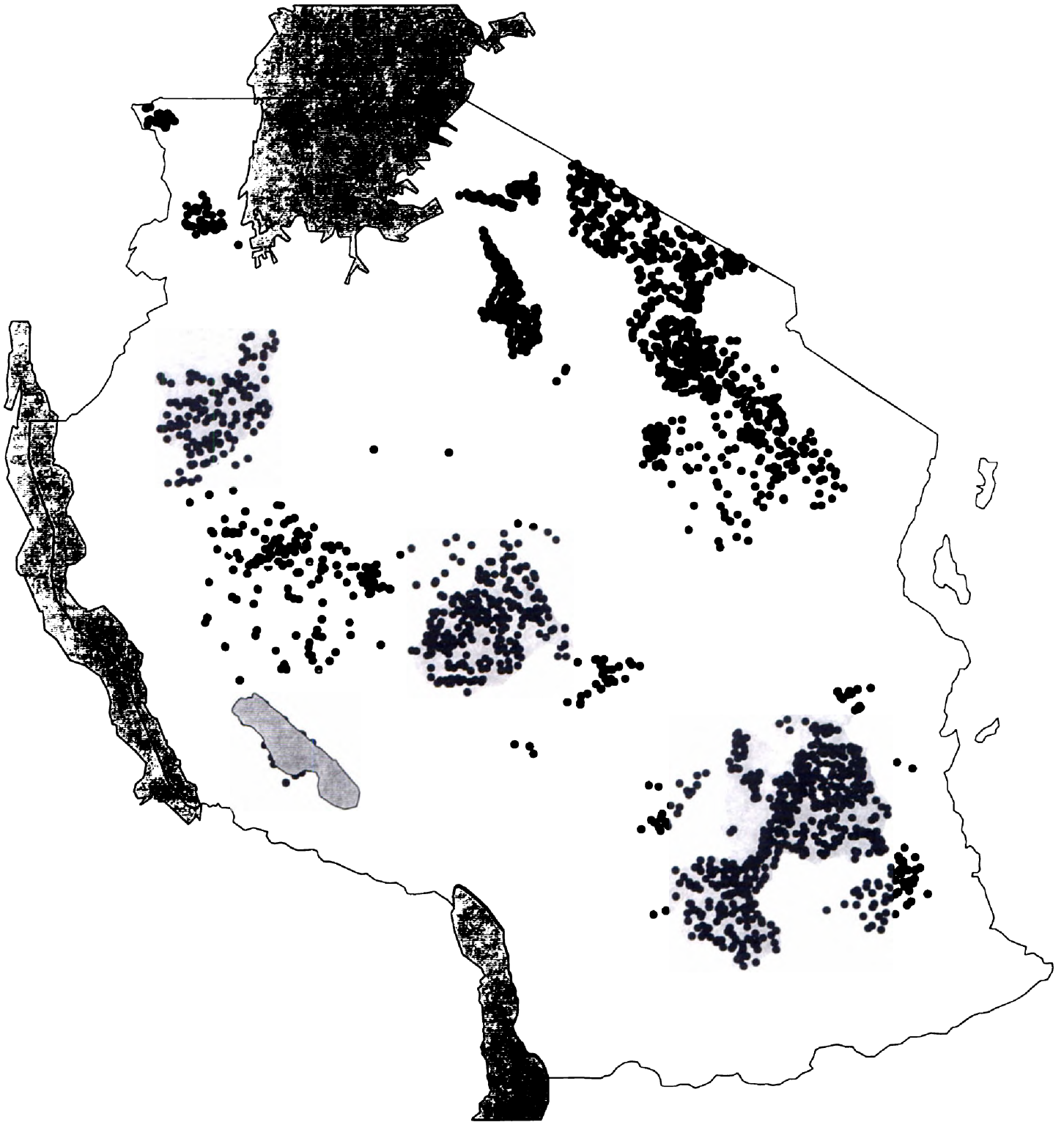
Table 8: Total numbers of various species shot by tourist hunters in different categories of land during 1988–92–93, together with total game fees (in US\$) accrued in different categories of land in each year (Planning and Assessment for Wildlife Management, 1996c).

Species	Game Reserve	GCA/OA
Elephant	138	16
Lion	450	457
Leopard	429	436
Greater kudu	234	149
Lesser kudu	5	260
Gerenuk	3	260
Oryx	5	381
Sable	399	208
Roan	129	126
Buffalo	1452	1058
Zebra	874	974
Year		
1988	\$613,611	\$638,775
1989	\$1,021,983	\$1,176,620
1990	\$1,165,770	\$1,176,620
1991	\$1,343,690	\$1,240,765
1992	\$1,758,205	\$1,842,055

2.6 COMPARISON OF RESIDENT AND TOURIST HUNTING

A much wider range of trophy animals is available to the tourist than to the resident hunter (70 vs 22 mammals), including various carnivores. However, some species are available to both types of hunter. Of these, fewer buffalo, hartebeest and warthog were requested by residents than were shot by all tourist hunters in the 1992–93 season (Table 10). However, more wildebeest, impala and dik dik were requested by resident hunters than were shot by all tourist hunters. The overall performance of the two industries is particularly striking (Table 10). A total of 5285 animals were requested by resident hunters in 47 districts and a total of 7034 animals were shot by all tourist hunters. However, the former generated around US\$ 40,000 in game fees compared with US\$ 3.6 million from tourist hunters. This comparison does not include the other fees accruing to tourist hunting nor to the daily rate paid to outfitters. It is even more pertinent to make this comparison for volumes of tourist hunting taking place only in GCAs and OAs, because resident hunting

Figure 4: Fees collected from tourist hunting in 1992-93, all fees inclusive. Each dot represents \$1500.



licences are issued for these categories of land only. Fewer animals were shot by tourist hunters in all GCAs and OAs than were requested in 47 districts. Furthermore, tourist hunting generated nearly 50 times more game fees for these categories of land than resident hunting.

Table 9: Numbers of animals shot and fees earned from citizen and non-citizen resident hunters in 1992. Data are shown as totals and percentages. *It should be noted that the total number of animals and fees refers to all animals shot including those not listed in the table.

Species	Shot by citizens	Shot by non-citizens	Fees from citizens	Fees from non-citizens
Buffalo	55 : 93%	28 : 7%	\$6797 : 74%	\$2441 : 26%
Wildebeest	550 : 95%	28 : 5%	\$3543 : 73%	\$1295 : 27%
Hartebeest	331 : 95%	16 : 5%	\$3195 : 79%	\$863 : 21%
Topi	237 : 95%	13 : 5%	\$2287 : 7%	\$674 : 23%
Grant's Gazelle	292 : 92%	26 : 8%	\$1405 : 63%	\$836 : 37%
Thomson's Gazelle	210 : 95%	10 : 5%	\$799 : 75%	\$270 : 25%
Impala	606 : 90%	65 : 10%	\$3935 : 64%	\$2226 : 36%
Dik-dik	227 : 99%	3 : 1%	\$310 : 81%	\$75 : 19%
Warthog	111 : 78%	31 : 22%	\$567 : 28%	\$1462 : 72%
Totals	4,881 : 92%	404 : 8%	\$27,777 : 69%	\$12,211 : 31%

Table 10: Comparison of tourist and resident hunting in 1992-93 season, showing total numbers of various species requested and the percentage contribution of those species to total game fees for each type of hunting, together with total numbers shot and total game fees. * It should be noted that the total number of animals and of fees refers to all animals shot including those not listed in the table.

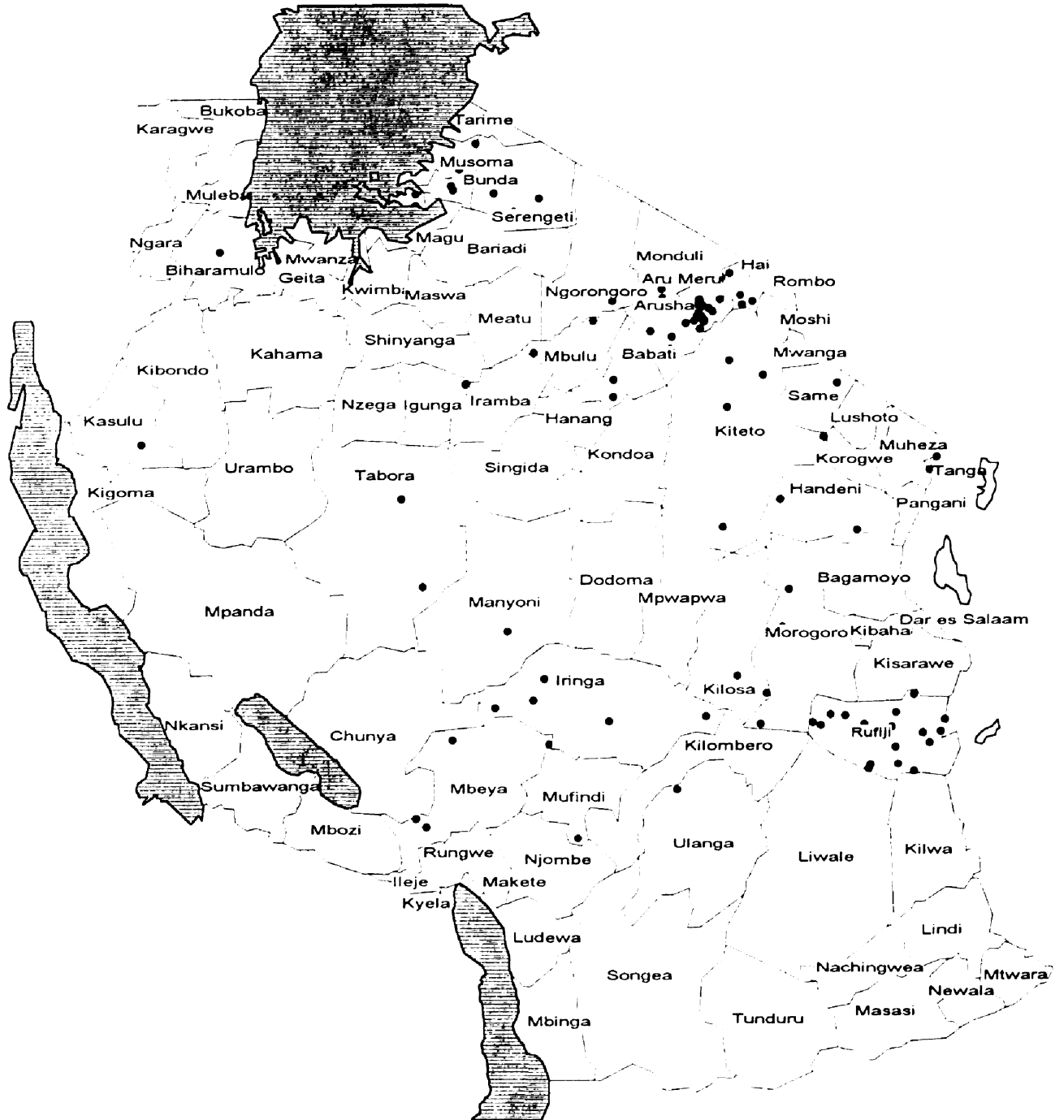
Species	All tourist hunting	Tourist hunting in GCAs/OAs	Resident hunting
Buffalo	736 : 12%	239 : 12 %	383 : 23%
Wildebeest	287 : 2.5%	159 : 2.5%	578 : 12%
Hartebeest	434 : 4.5%	214 : 4.5%	347 : 10%
Topi	166 : 1.5%	74 : 1.5%	250 : 7%
Grant's Gazelle	302 : 2.0%	292 : 2.0%	318 : 6%
Thomson's Gazelle	214 : 1.0%	177 : 1.0%	220 : 3%
Impala	550 : 4.0%	408 : 3.5%	671 : 15%
Dik-dik	110 : 0.5%	100 : 0.5%	230 : 1%
Warthog	339 : 3.0%	124 : 3.0%	142 : 5%
Total No.:	7,034	3,859	5,285
Total Game Fees:	\$3,600,260	\$1,842,055	\$39,988

3. OPTIONS FOR SHARING BENEFITS

The foregoing analyses have provided options for sharing benefits with local people from legal forms of wildlife utilisation. Two economically valuable forms of wildlife utilisation within Tanzania have the potential to meet conservation objectives of ensuring sustainable use of wildlife. These are the game viewing industry and the tourist hunting industry. Some 50% of the volume and value the game-viewing industry is concentrated around the settled NCA (Table 4). The other 50% of the volume and value of the game viewing industry is spread among the unsettled NPs in northern Tanzania (Figure 2). The tourist hunting industry is more evenly, though by no means equally, distributed across Tanzania (Figure 4). It is equally divided between unsettled GRs, and GCAs and OAs where wildlife and humans cohabit (Table 8). Furthermore, there are probably many districts that contain suitable wildlife populations that do not yet attract tourist hunting.

Tanzania could proceed with providing benefits to humans from lucrative forms of wildlife utilisation like game viewing and tourist hunting in one of three ways. The first way is to share money earned within unsettled protected areas to local people living outside that area. The second way is to retain money earned within unsettled protected areas, and to allow people to receive a high proportion of benefits from wildlife utilisation activities within settled areas. This option obviously requires that settled areas still have the potential to generate revenue from wildlife utilisation, for example because wildlife populations are still reasonably high and there is sufficient suitable habitat. The third way is to compromise between the first two ways.

Figure 5: Fees collected from resident hunting in 1992. Each dot represents \$1500.



3.1. PRESENT POLICY

The economically valuable forms of wildlife utilisation make earnings directly from two sources: (a) from the range of fees charged by the wildlife and regional authorities; and (b) from the rates charged by lodges and outfitters in the private and parastatal tourist sectors for providing their services to clients. The wildlife authorities charge their fees and the Government receives tax on profits from private and parastatal sectors. However, relatively little money from either of these two sources reaches local communities living among wildlife (Table 1).

3.1.1. Fees: Policy statements made by the Government in August 1992 recognised this problem and promoted the objective of allocating 25% of fees derived from all forms of wildlife utilisation to respective District Councils. However, in practice this is a difficult option to administer because the fees charged by the wildlife authorities accrue to different bodies as a result of the complex structure of the wildlife sector. The situation is as follows:

3.1.1.1. The Department of Wildlife is a government department and revenue that it accrues from game fees goes directly to Treasury. However, the Department is allowed under its Act to retain 25% of game fees in the Tanzania Wildlife Protection Fund (TWPF), which serves as a revolving fund to assist wildlife conservation activities. Furthermore, Government agreed from the 1992–93 hunting season to establish a retention scheme for Selous GR. This allowed Selous to retain 50% of the money due to Treasury to enhance its conservation activities. Therefore, various splits are in place, on the one hand for GRs with retention schemes, and on the other hand for GRs without retention schemes and for GCAs and OAs. Hence, the present intended distribution of game fees is shown in Figure 6. Some figures are of relevance to current community-based conservation practices. Thus, 9.4% of the game fees from GRs with retention schemes and 18.75% of game fees from non-retention scheme GRs, and from GCAs and OAs, will accrue to their respective districts. For the 1992–93 season, this should have amounted to a total of US\$ 597,763 across the country (Table 11, revised from Planning and Assessment for Wildlife Management, 1996b).

Table 11: Fees that should accrue to District Councils under present policies of sharing 25% of the game fees from all areas (Figure 6), and fees that would accrue if a higher proportion, 40%, was shared from occupied areas only.

Area	Fees to District Councils in 1992–93	Fees if there were a 40% share from occupied areas
Retention GRs	\$77,700	
Other GRs	\$174,676	
GCAs and OAs	\$345,387	\$736,826
Total	\$597,763	\$736,826

3.1.1.2. TANAPA and NCAA are both parastatals within the wildlife sector and are now allowed to retain all their revenue, both in forex and in Tsh. This provides an incentive to maximise their foreign exchange earnings and to avoid relying on government subventions for their operating budgets. Recently, both TANAPA and NCAA have had to pay corporation tax to Treasury on their taxable income. However, as parastatals, the Government's intention of sharing 25% of fees with district councils cannot be implemented. The options are that either specific legislation would need to be put in place or that district councils could directly collect 25% over and above present fees charged by TANAPA and NCAA.

3.1.2. Daily Rates: The private and parastatal tourist sectors enjoy a considerable through flow of revenue from being allowed to operate in wildlife areas (Tables 4, 7). These operators are subject to normal government rules on taxation, but little of direct benefit passes to local communities. A few exceptions occur where operators have made concession payments to village communities to use their land for game viewing (Dorobo Tours and Safaris and Oliver's Camp, 1996).

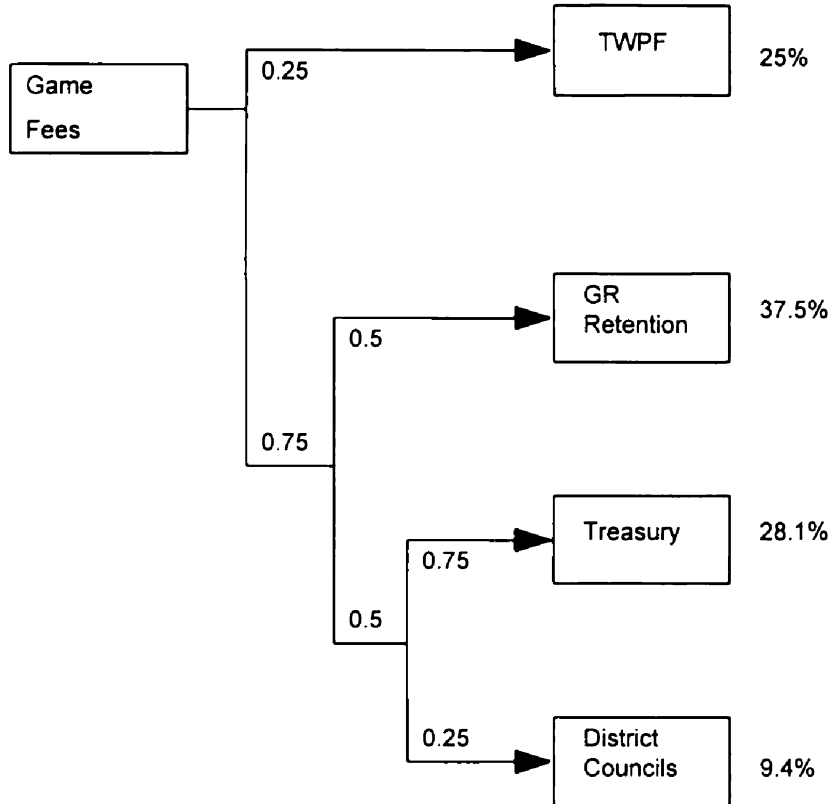
3.2. FUTURE POLICY

The question has already been posed of how revenue should be distributed. The options are: (a) to share revenue from unsettled protected areas with local people living outside them; or, (b) to promote stewardship of the wildlife in settled areas by allowing greater control of wildlife resources and sharing of benefits within those areas. At present, the policy is developing in the right direction,

but appears somewhat confused and hard to implement in a manner that is equitable across the various authorities. Furthermore the allocation of revenue to district councils provides little guarantee that the local communities will see the direct benefits of those revenues, nor of any direct links between wildlife, wildlife authorities and those communities.

Figure 6: The distribution of game fees from Games Reserves with retention schemes, and from Game Reserves without retention schemes and other hunting areas

From 1992 for Selous GR, and possibly for other GRs



From 1992 for GRs without retention, and for GCAs and OAs

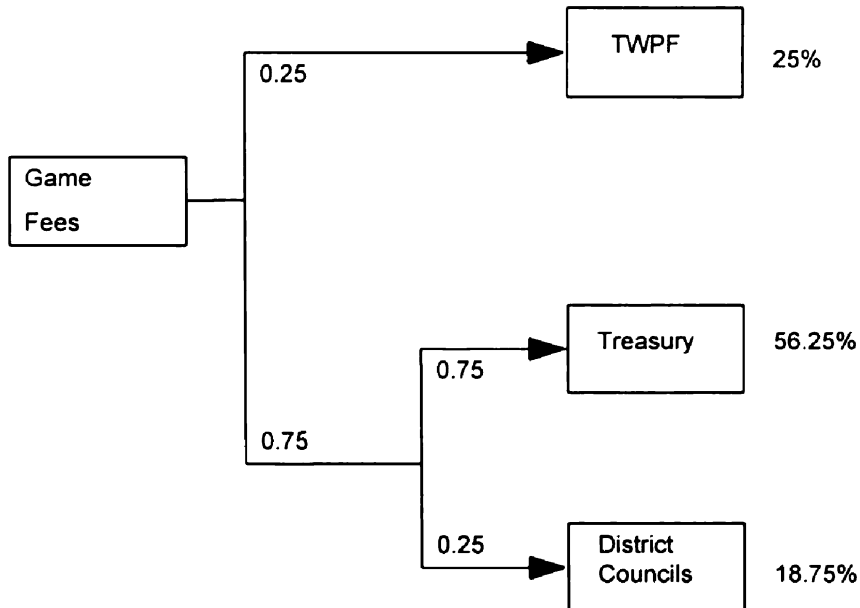


Figure 6: The distribution of game fees from Games Reserves with retention schemes, and from Game Reserves without retention schemes and other hunting areas

As a guideline, it is proposed that the following conditions should be met in future policies to share revenue:

- policies should aim to provide direct financial benefits to local communities living among wildlife;
- this should be achieved through promoting the responsibility of local communities to manage wildlife resources in settled areas;
- accordingly, higher levels of financial benefit need to be allocated to local communities from their home areas. This will leave the unsettled NPs and GRs to act as core areas fulfilling national conservation objectives and provide future populations of wildlife to be utilised in the surrounding settled areas; and,
- emphasis should be placed both on the equitable sharing of fees and on payment of concession rights by the operator for the privilege of using the area. The latter proposition ensures that a proportion of the money accruing to lodge operators and outfitters (Tables 4, 7) becomes available to both wildlife authorities and local people.

If these guidelines are appropriate, long-term emphasis will have to be placed upon providing greater levels of benefit to local people within settled areas. In the interim, it will be necessary to ensure that benefits begin to flow to villages. Hence, the unsettled protected areas will most probably have to share some benefits to local communities. Thus, it is important that mechanisms are established within the wildlife parastatals to share benefits. In the long-term, the options are as follows:

3.2.1. Ngorongoro: This area has considerable potential to earn and to share benefits from its wildlife. NCAA needs to establish a benefit sharing mechanism in the short- and long-term, and to promote mechanisms for sharing the responsibility for management decisions that are consistent with the office of Conservator.

3.2.2. Tourist Hunting: This industry provides considerable potential for local people across many rural areas of Tanzania to receive benefits through community-based conservation projects. This situation arises because many hunting blocks occur in settled areas (see Figure 2). The present distribution of tourist hunting revenue across Tanzania (Figure 4) suggests that there is potential at present for community-based conservation schemes involving tourist hunting in the following areas:

- Liwale OA;
- the southern Masailand GCA blocks of Ruvu Same, Ruvu Maasai, Handeni, Kitwai, Sanya-Lelatema, Simanjiro, Lolkisale, Mkungunero and Burunge;
- the GCA blocks surrounding the Serengeti, Mto wa Mbu, Longido, Lake Natron and Loliondo to the east, and Ikorongo & Grumeti, and Makao OA to the west; and,
- Yaeda Chini.

Such recommendations require that selected GCAs or OAs have sufficient potential to earn revenue and share benefits with local people. An analysis has been undertaken of: Liwale OA, within the project area of the Selous Conservation Project; Loliondo GCA within the Serengeti Regional Conservation Strategy; and, Lunda Mkwambi GCA (formerly the Ruaha OA) within the Ruaha Ecosystem Wildlife Management Project area. This analysis shows that the possible total revenue earned from tourist hunting within these particular areas varies from US\$ 0.25 million to US\$ 1.25 million over the 1988 to 1992–93 hunting seasons (Table 12). Accordingly, there is scope for ensuring that in future people at least obtain an equitable share of the total from tourist hunting in their home areas.

Furthermore, another analysis has been undertaken to see how sharing a higher proportion of revenue from settled areas would provide as compared with present policies of sharing smaller amounts from all areas (Table 11). This exercise shows that present policies of sharing 25% of game fees from tourist hunting from all GRs, GCAs and OAs produces less money for local people than a 40% share from GCAs and OAs only.

Table 12: An assessment of potential earnings of tourist hunting blocks within existing community-based conservation areas in Tanzania. Actual game fees were used to estimate an estimate of the other fees and the 55% of the daily rate that are attributable to the block (Planning and Assessment for Wildlife Management, 1996c).

Area and Year	Actual Game Fees US\$	Estimated Other Fees US\$	Estimated Daily Rate (55%) US\$
Liwale OA			
Total 1988-92/93	212,926	51,666	284,175
Grand total			\$558,767
Loliondo GCA			
Total 1988-92/93	461,790	129,964	679,163
Grand total			\$1,270,917
Lunda Mkwambi GCA			
Total 1988-92/93	80,780	29,707	110,282
Grand total			\$220,769

3.2.3. Individual projects: While the Government might adopt measures to distribute revenue to local people, there is also considerable potential for outfitters and tour operators to become involved in local conservation schemes. Game viewing and tourist hunting are major industries in Tanzania that employ people and, in one case, could provide considerable quantities of meat otherwise not needed by the trophy hunter. Outfitters and tour operators working in settled areas should now be required as part of the conditions of holding a concession to become involved with local communities. Generating jobs locally rather than bringing employees from other areas and distributing meat where possible are important aspects of promoting game viewing and tourist hunting industries among local people. The efforts of some outfitters and tour operators in promoting the financial welfare of local communities through their activities point the way forward for others (Robin Hurt Safaris, 1996; Dorobo Tours and Safaris and Oliver's Camp, 1996).

4. VILLAGE TITLES

All community-based conservation projects working in Tanzania have recognised that a key element of any future policy is the acquiring of title by villagers. This is a vital step if villages are to be allowed to manage wildlife legally on 'their' land and to receive direct benefits from that management. Tanzania's villagisation policy drew people out of traditional villages into Ujamaa villages (Sandi, 1996). Subsequently, the process for providing title to villages was established. As a first step, all village boundaries were defined under the Local Government (District Authorities) Act of 1982. This resulted in a total of around 8000 villages throughout Tanzania, a total that has since expanded to around 10,000 villages. Since 1982, the process of acquiring villagers a more secure title has progressed on a village-by-village basis. This part of the paper aims: (a) to examine some of the implications of present village titles for community-based conservation; and, (b) to examine the geographical patterns of villages that are well advanced in the process of securing title in relation to areas where wildlife is well utilised.

4.1. METHODS

The process of acquiring a full title is long and complex, and involves several different offices and departments at both central, regional and district levels (see Table 13). This analysis aims to describe: (a) the numbers and proportions of villages in each district that have advanced in the process of acquiring title; and, (b) the average size of the villages so advancing in relation to the objectives of managing wildlife resources. Attempts were made to collect data from three different departments at various steps of the process (Table 13) as follows: Step 1 (the total number of defined villages in each district, as per the 1982 Act); Step 3 (the total number of villages in each district that have been surveyed, together with the size of the surveyed village); Step 5 (the total number of villages with prepared Certificates of Occupancy). By definition, all villages at Step 5 should have been through Step 3 and be on record in the relevant ledgers at Step 3. However, an imperfect data set was compiled for various reasons: (a) the master list of the number of villages in each district in a few cases showed fewer villages than were on the records of other departments as having been surveyed; (b) not all villages or village sizes were on record in ledgers and files at Steps 3 and 5 in the respective departments. Despite these limitations, the available data provide a useful indication of the present status of village title deeds in relation to future needs of community-based conservation. Data are presented in two forms, one showing the proportion of villages in a district that are advancing through title, and the mean size of village areas that have been surveyed by district.

4.2. NUMBERS AND SIZES OF VILLAGES ADVANCING TO TITLE

A total of 2568 villages appear to have been surveyed and 1191 of these villages have a prepared Certificate of Occupancy. These totals represent around 25-30% of the villages throughout Tanzania having been surveyed and around 10-15% of villages having prepared certificates. A range in proportion of villages arises because both totals of 8000 and of 10,000 villages have been used.

The geographical distribution shows a high proportion of villages that have been surveyed and prepared in the south-east and north-east of Tanzania. Equally, there are very few such villages in western areas of Tanzania (Figure 7). There is only slight overlap between areas of high earnings from wildlife utilisation (see Figure 9) coupled with villages advancing through title. Hence, the districts and regions of Masailand appear to hold most immediate promise for future community-based conservation initiatives. However, there are very few other areas where high earnings and advancement through title overlaps.

Given that the sizes of villages do not change between Steps 3 and 5 (Table 13), the data on village sizes on the ledgers at both steps were combined. The mean village size varies from a high of 478 sq km in Kiteto District to a low of 2 sq km in Meatu District (Table 14; Figure 8). Generally the small size of the village areas may provide problems for community-based conservation in that wildlife management aiming to bring in meaningful revenues needs to take place in larger units. The minimum size for a game-viewing concession in an area of exceptional scenic variety will be around 300 sq km, while that for a tourist hunting block is around 1500 sq km. Villages must seek legally secure mechanisms to co-operate at levels higher than their village governments to manage wildlife resources effectively within larger areas.

Table 13: Steps in Registration of Villages and obtaining Certificates of Title

Step	Authority Responsible
1 Village Boundary Defined	Local Government (District Authorities) Act 1982
2 Village Surveyed and Demarcated	Regional Surveyors
3 Approval of Surveys	Department of Surveys
4 Preparation of Deed Plans	Department of Surveys
5 Preparation of Certificate of Occupancy	Lands Division
6 Forwarding of Certificate of Occupancy to region	Lands Division
7 Forwarding of Certificate of Occupancy to district	Regional Lands Office
8 Preparation of Letter of Offer to Village, demanding initial land rent, stamp duty and other fees	District Lands Office
9 Payment of fees and Signing of Certificate of Occupancy	Village Council
10 Forwarding of Signed Certificate of Occupancy to district	Village Council
11 Forwarding of Signed Certificate of Occupancy to region	District Lands Office
12 Forwarding of Signed Certificate of Occupancy to HQ	Regional Lands Office
13 Signing and Sealing of Certificate of Occupancy	Commissioner of Lands
14 Forwarding of Sealed Certificate of Occupancy to Zonal Registration Office	Lands Division
15 Registration of Village	Zonal Registration Office
16 Forwarding of Registration to Village	

5. CONCLUSION

Tanzania is at an early stage of developing community-based conservation projects, and has not yet harnessed the economic potential of game viewing or tourist hunting to local people. A necessary part of formulating a national policy on community-based conservation will require determining how best these activities can be carried out and encouraged. A particular requirement must determine how best to provide benefits to local people from managing wildlife resources in their home areas. An additional problem is to ensure an effective mechanism of providing villagers with control over wildlife resources within a sufficiently large management unit.

Figure 7: The proportions of villages advancing through the process of title by district

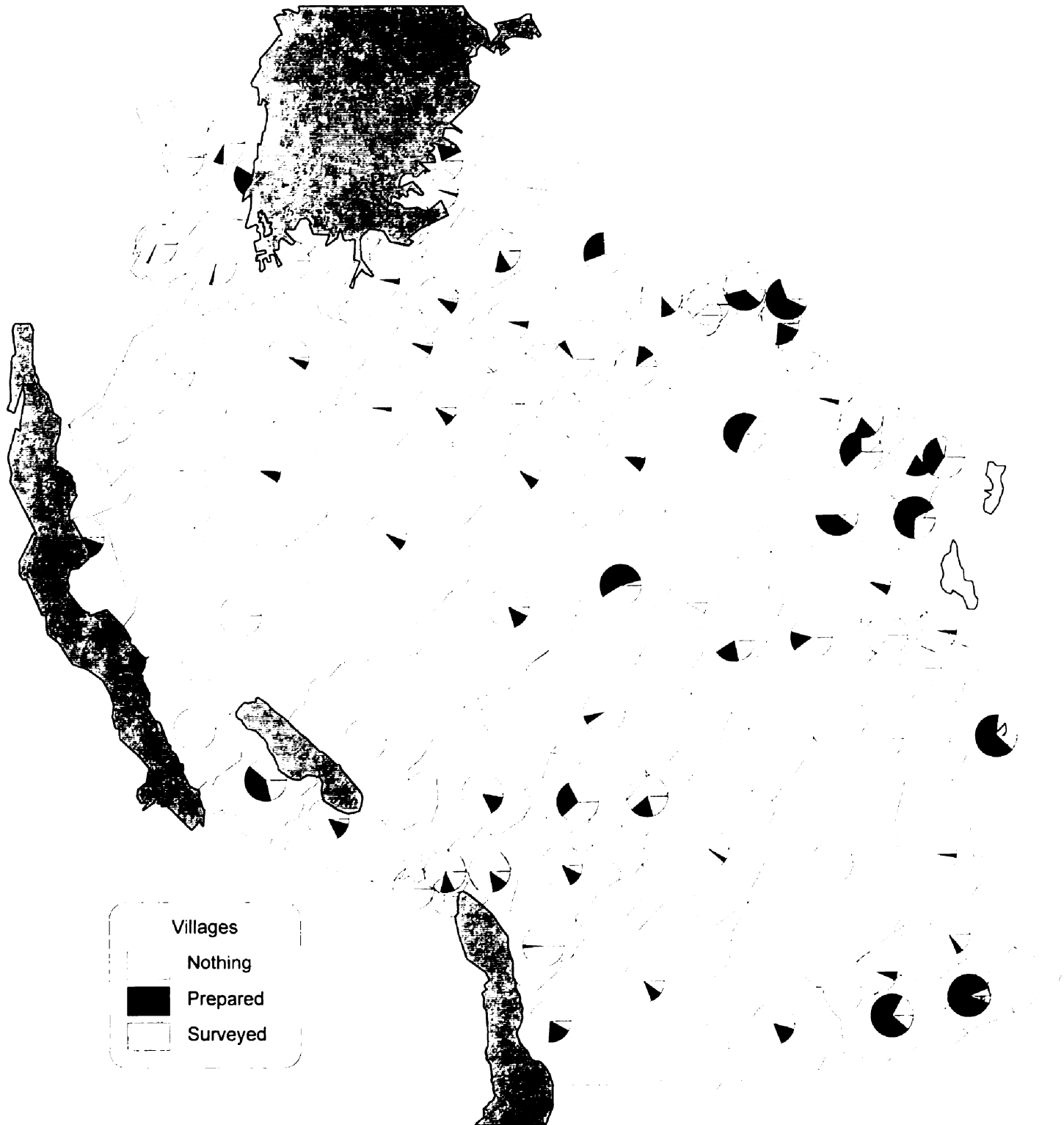


Figure 8: The mean size of villages that have been surveyed by district

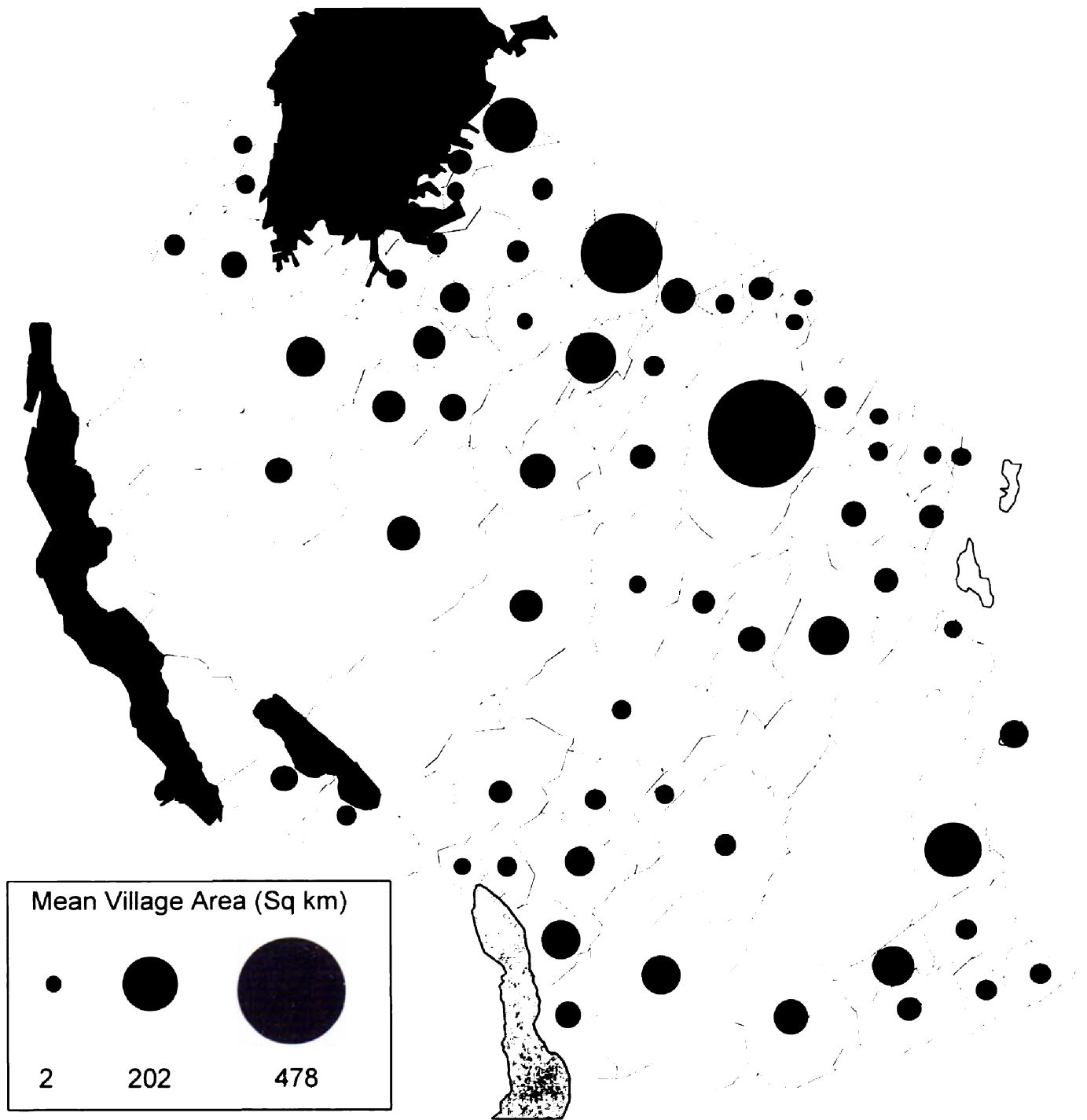


Table 14: The average size of villages that have been surveyed in Tanzania

District	Average size (sq km)	District	
Aru Meru	19.82	Mbozi	24.85
Babati	21.59	Mbulu	186.61
Bagamoyo	43.99	Meatu	1.87
Bariadi	30.24	Monduli	98.75
Biharamulo	55.16	Morogoro	125.26
Bukoba	9.78	Moshi	7.33
Bunda	6.74	Mpwapwa	37.04
Dodoma	10.42	Mtwara	29.49
Hai	43.75	Mufindi	34.06
Handeni	48.43	Muheza	10.86
Igunga	57.10	Muleba	15.24
Iringa	16.28	Musoma	43.22
Kahama	126.12	Nachingwea	132.60
Karagwe		Newala	24.06
Kasulu		Ngara	27.06
Kibondo		Ngorongoro	340.15
Kigoma	22.86	Njombe	74.49
Kilombero	24.41	Nzega	92.27
Kilosa	54.02	Pangani	41.89
Kilwa	206.31	Rombo	7.59
Kinondoni	8.00	Rungwe	10.52
Kiteto	477.91	Same	32.15
Kondoa	47.40	Serengeti	26.74
Korogwe	17.65	Shinyanga	91.01
Kwimba	21.26	Singida	101.76
Lindi	23.09	Songea	125.32
Ludewa	125.76	Sumbawanga	56.00
Lushoto	7.93	Tabora	94.06
Mafia	61.63	Tanga	18.48
Makete	20.67	Tarime	202.58
Manyoni	86.50	Tunduru	108.96
Masasi	41.33	Ukerewe	27.07
Maswa	73.70	Ulanga	30.31
Mbeya	38.68	Urambo	55.11
Mbinga	53.53		

ACKNOWLEDGMENTS

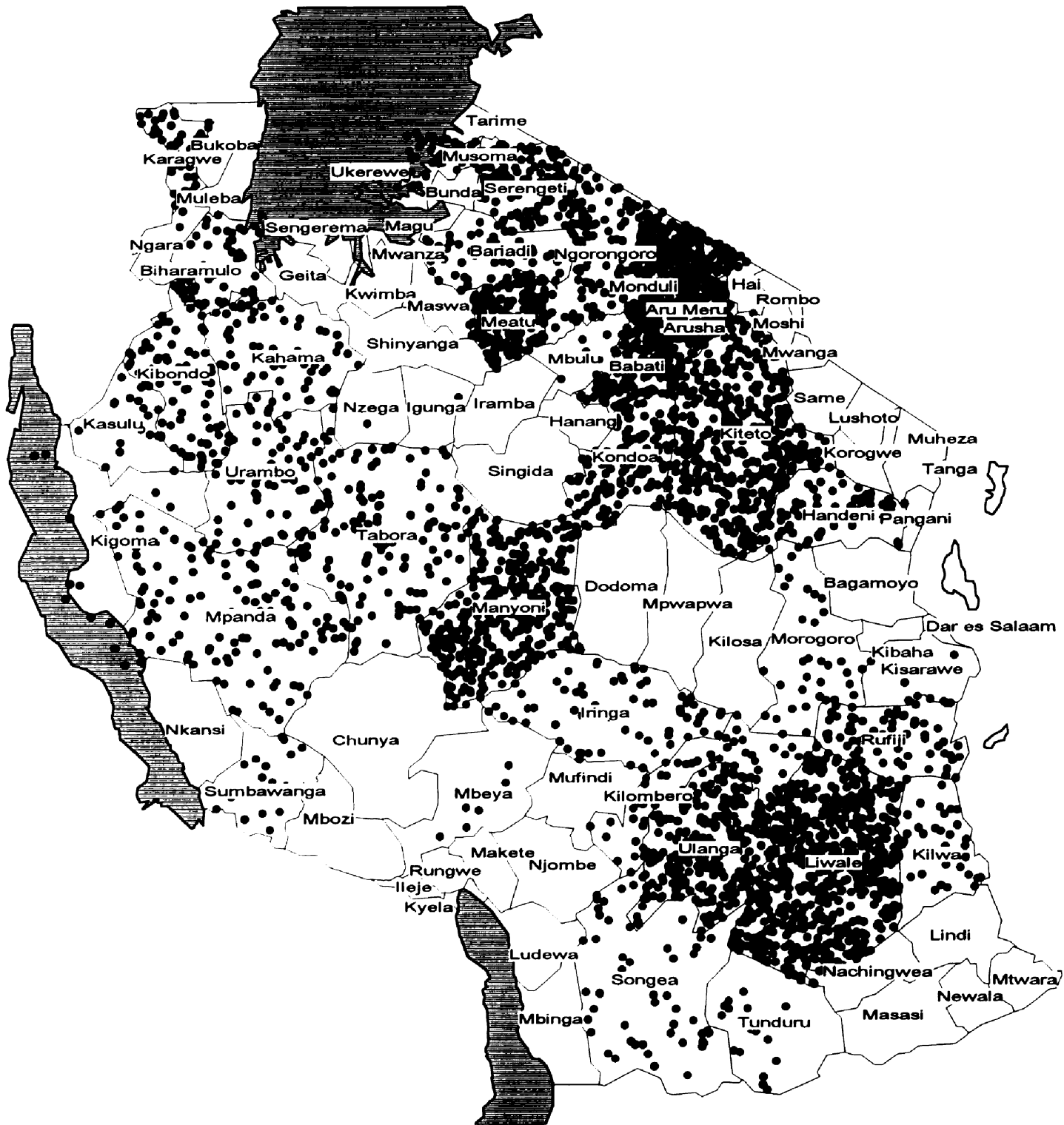
Planning and Assessment for Wildlife Management wishes to thank the following for their assistance:

Director General of TANAPA and the Conservator of NCAA for providing data on game viewing tourism within their areas;

Many tour operators in Arusha and Dar es Salaam, and the Tanzania Tourism Board for providing data on lodge rates;

Many staff of the Wildlife Department for their help in providing data on tourist and resident hunting; Assistant Commissioner of Lands, the Department of Surveys, the Prime Minister's Office and the Statistics Office for their help in providing data on the issue of title and the sizes of village areas.

Figure 9: The total revenue from legal forms of wildlife utilisation by district



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Appendix 1: Assumptions on visitors of different status staying overnight in game viewing areas and staying in lodges and camps as opposed to wildlife authority managed camp-sites (for which the fee is paid to the authority direct), and the average bed and meal price per person per night in 1991-92 collected from brochures. Inclusive prices for bed and meals are shown for Katavi and Mahale Mts.

Area	Category of visitor	% Staying overnight	% Staying in lodges and camps	Price per night	Meals
Ngorongoro CA	NR	All	70%	\$31	\$20
	R	75%	70% (53%)	\$21	\$10
Serengeti NP	NR	All	70%	\$31	\$20
	R	All	70%	\$16	\$10
Lake Manyara NP	NR	50%	70% (35%)	\$37.50	\$20
	R	50%	70% (35%)	\$28	\$10
Tarangire NP	NR	All	70%	\$38	\$20
	R	All	70%	\$20	\$10
Arusha NP	NR	All	90%	\$31	\$20
	R	10%	90%	\$13	\$10
Kilimanjaro NP	NR	All	40%	\$15	-
	R	All	40%	\$01	-
Rubondo NP	NR	All	0%	-	-
	R	All	0%	-	-
Gombe NP	NR	All	0%	-	-
	R	All	0%	-	-
Katavi NP	NR	All	0%	-	-
	R	All	100%	\$250	\$20
Mahale Mts NP	NR	All	100%	\$150	\$10
	R	All	100%	\$250	\$20
Ruaha NP	NR	All	100%	\$150	\$20
	R	All	100%	\$34	\$10
Mikumi NP	NR	All	70%	\$25	\$10
	R	All	100%	\$30	\$20
Selous NP	NR	50%	70% (35%)	\$13	\$10
	R	All	100%	\$47.50	\$20
	R	All	100%	\$37	\$10

Appendix 2: Districts for which resident hunting data were not available for 1992

Region	District
Dodoma	Mpwapwa Kondoa
Iringa	Makete Njombe Ludewa
Kagera	Ngara
Kigoma	Kibondo
Kilimanjaro	Rombo Moshi
Lindi	Liwale Kitwa Lindi Nachingwea
Mara	Tarime
Mbeya	Kyela Rungwa Ileje Mbozi Chunya
Morogoro	Kilombero
Mtwara	Masasi Newala Mtwara
Mwanza	Sengerema Kwimba Geita
Pwani	Bagamoyo
Rukwa	Sumbawanga Nkansi Mpanda
Ruvuma	Songea Tunduma Mbinga
Shinyanga	Maswa Shinyanga
Singida	Iramba
Tanga	Pangani Muheza

Appendix 3: Fee schedules for resident hunting by citizens and non-citizens

A. Mammals

	Common Name	Citizens (TShs)	Non-Citizens (TShs)	Maximum per month
1.	Buffalo	6000	27020	1
2.	Bushbuck/male	1200	15444	2
3.	Bush-pig	1200	9843	2
4.	Dikdik	450	7720	2
5.	Duiker-Abbotts	600	8363	1
6.	Duiker-Blue	500	8363	2
7.	Duiker-Common	600	8363	1
8.	Eland-Male	10000	38600	1
9.	Gazelle-Grant's/male	1500	8363	1
10.	Gazelle-Thomson's/male	1200	9972	2
11.	Hare	300	2252	2
12.	Hartebeest	3000	16727	1
13.	Impala/male	2000	10615	1
14.	Hyrax-Rock	200	3217	2
15.	Oribi	500	5468	2
16.	Pigmy Antelope	400	5468	2
17.	Reedbuck-Bohor/male	1200	12867	1
18.	Reedbuck-Southern/male	1500	12867	1
19.	Steinbuck	500	6433	2
20.	Topi	3000	16083	1
21.	Warthog	1500	14153	2
22.	Wildebeest	2000	14153	1

B. Birds

	Common Name	Citizens (TShs)	Non-Citizens (TShs)	Maximum per month
23.	Ducks and Geese	200	6427	2
24.	Francolins	150	444	5
25.	Lesser Bustards	150	8427	2
26.	Snipe-Painted	150	251	5
27.	Snipe	150	251	5
28.	Sandgrouse	150	6427	5
29.	Pigeons	150	6427	5
30.	Guinea Fowl	300	6427	3

25. TOPICS AND FACILITATORS' QUESTIONS FOR WORKING GROUPS

N. Leader-Williams, I.F. Ndunguru, E. Barrow, B.N.N. Mbanu, M. Bess and M. Infield

WORKING GROUP 1: LAND USE

1. SYSTEMS OF LAND TENURE

- Can community-based conservation be carried out under current systems of land tenure?
- Are customary and titled systems of tenure equally valid in contributing to the village securing use rights over natural resources in their areas?
- Given that land tenure mechanisms are somewhat confused, and hard to change, can community-based conservation operate effectively within present systems in the interim?
- Are new land tenure systems needed in the long term to provide greater land security and less potential for revocation?

2. UNITS OF MANAGEMENT

- Under what size of unit should wildlife outside Game Reserves and National Parks be managed?
- What is the ideal administrative unit, or combination of units (eg, village, wards, all villages within present GCA boundaries)?
- If units need to be larger than single villages, how can cooperation in management aims be fostered?

3. COMPATIBLE AND INCOMPATIBLE USES

- What are compatible and incompatible forms of land use in different parts of Tanzania?
- Why should rural people bother with land uses which are compatible with wildlife conservation?
- Can transhumanant and settled pastoralism, forestry, fisheries, and agriculture be accommodated with wildlife conservation? If so, how and to what extent?
- How can rural people be encouraged to use compatible forms of land use in wildlife-rich areas?

4. ROLE OF LAND-USE PLANNING

- Is there a need for land-use planning in community-based wildlife conservation?
- Does land use planning have a role to play in avoiding conflicts between people and wildlife?
- Should land-use plans be flexible to allow for modification? If so, at what point does flexibility lead to arbitrariness?
- How should land-use plans be made workable and usable, and to what extent should a land-use plan be made binding?

WORKING GROUP 2: ESTABLISHING AND MANAGING WMAs

1. PURPOSE, DEFINITION AND ESTABLISHMENT OF WMAs

- What is a WMA? What does it mean? What do you understand by the term WMA?
- Should a WMA be a protected area that is gazetted? If so, what type of conservation status should it have?
- How does or should the term WMA differ from other protected areas?
- What are the merits of the WMA approach in the context of community wildlife?

2. WMAs IN THE CONTEXT OF EXISTING INSTITUTIONS

- Given the existence of so many different wildlife authorities in Tanzania is it possible to create a WMA? If so, how?
- What are the benefits of a WMA relative to other types of areas devoted to wildlife conservation?

3. PLANNING

- What does bottom-up planning for WMAs really mean and what are its implications to communities and other government agencies?

- Given that communities are used to top-down planning, is it possible to engage them in bottom-up planning? And, if so, how and what does it require? Are communities ready for bottom-up planning? Are other government agencies ready for bottom-up planning?
- Given the amount of attention paid to bottom-up planning and participation, what are the advantages and disadvantages of bottom-up planning for WMAs?
- Should bottom-up planning for WMAs apply to all community-based wildlife conservation?

4. MONITORING AND SETTING ACCEPTABLE LEVELS OF USE

- Should activities within WMAs be monitored and should acceptable levels of use be set? If yes, why?
- If WMAs should be monitored and levels of acceptable use set, who should be responsible?

5. PRIORITISATION AND PILOT AREAS

- Where should WMAs be established? Why those areas?
- Should WMAs be established wholesale or according to priorities? Why?

6. ROLE OF OTHER SECTORS IN MANAGING WMAS

- What should the role of TANAPA and NCAA be in managing WMAs (particularly because they have no jurisdiction outside National Parks and NCA)?
- What should be the role of forestry, fisheries, and other natural resource sectors?
- Is there a role for any other sectors in WMAs? If so, what and which sectors?

7. DONOR AND TECHNICAL ASSISTANCE

- Is there a need for donor and/or technical assistance in establishment, management and monitoring of WMAs? If so, why? If so, what?

WORKING GROUP 3: PARTNERSHIP AND COMMUNITY CONSERVATION

1. BUILDING PARTNERSHIP AND TRUST BETWEEN WILDLIFE AUTHORITIES AND LOCAL COMMUNITIES

- What do we mean by a partnership?
- Do we know, understand or care about what we mean by such partnership, or is it just another word for continuing what currently happens?
- What is responsibility? Who? Why? What levels of?
- What do we mean by trust? At what levels? With whom?
- Are we prepared for the implications of this, of what a partnership means, together with the explicit responsibilities involved, the devolution of authority and benefit flows?
- What are the rights and responsibilities of the many and varied stakeholders?
- At village level who are our partners? The leadership, the traditional elders, the women, the children, the youth? Who are our other partners in the district, and among other authorities and sectors?

2. STRUCTURES: TRADITIONAL, VILLAGE AND DISTRICT

- What are existing village structures and how can they be harnessed for community-based conservation?
- What is the relationship between traditional and village institutions with relation to community-based conservation?
- Is the authority of the village council really acknowledged by the District, by the Department of Wildlife and others? Are village bye-laws respected?
- Do villages possess the legislative power to enable community-based conservation activities? If so does that conflict with conservation legislation?
- Who decides how benefits are distributed and who benefits? Who has ultimate control? Who should have that ultimate control?
- How do we develop the concept of village (registered?, surveyed? and with title deed?) to a broader WMA type unit, and incorporate the implication that a real role will be recognised for villages in WMAs?

3. STRUCTURES: WILDLIFE AUTHORITIES (DEPARTMENT OF WILDLIFE, TANAPA, NCAA) AND OTHER SECTORS

- How can wildlife authorities adapt their structures?
- How can wildlife and other authorities adapt their structures?

- How and to what extent can wildlife authorities be better integrated with respect to community-based conservation?

4. MANPOWER: ROLE OF VILLAGE STAFF

- What role, both formal and informal do different cadres of villagers have in community-based conservation?
- What legal status should village staff have in community-based conservation?
- Is this role as part of a meaningful partnership or is it paternalistic?

5. MANPOWER: ROLE OF CCWs, RGOs, DGOs

- What is the role of different wildlife authority staff in a new community-based conservation world? Are they the policemen and the enforcers, or are they the facilitators and enablers?

6. TRAINING AND RECRUITMENT: VILLAGE STAFF

- How do we optimise recruitment and employment opportunities for village people in conservation activities in their areas?
- What are the training implications of community-based conservation at the village level?
- What is the range of training that should be offered to villagers in the context of community-based conservation?

7. TRAINING AND RECRUITMENT: WILDLIFE AND NATURAL RESOURCES SECTOR STAFF

- What are the training implications of community-based conservation for the wildlife and natural resources sector?
- What is the range of training that should be offered to the wildlife and natural resources sector for community-based conservation?
- What form should such training take?

WORKING GROUP 4: RELATIONSHIP BETWEEN LOCAL COMMUNITIES AND WILDLIFE

1. EXISTING AND USED LEGAL MECHANISMS FOR USING WILDLIFE

- What types of existing and legal mechanisms are currently used for wildlife?
- Are these mechanisms adequate and sufficient?
- Are there existing legal mechanisms that are underutilised, or not utilised at all?

2. PROPOSED LEGAL MECHANISMS FOR USING WILDLIFE

- Can control of hunting of wildlife outside Game Reserves be devolved? If so, what is or are appropriate mechanism(s)?
- Are bye-laws valid mechanisms of regulating wildlife use? If so, how? Are there any conflicts with any principle legislations?
- Can pilot schemes be widely applied? If so, how?
- Should voluntary benefits (such as payments of proportions of licence fees or employment of local people) be binding? If so, how?
- What wildlife, local and other institutions (eg, village wildlife committees, district natural resource committees) are appropriate legal mechanisms for using wildlife?

3. TYPES OF BENEFITS FROM WILDLIFE

- What is the range of benefits from wildlife?
- What types of benefits from wildlife are sustainable?
- What types of benefits from wildlife are compatible with both other forms of use and with conservation?

4. STAKEHOLDERS IN WILDLIFE

- Who are the primary stakeholders in wildlife conservation?
- What should be the relative distribution of benefits to these stakeholders?
- Who should determine who gets what benefits?

5. MECHANISMS FOR SHARING BENEFITS

- What are the benefits that can accrue from wildlife (eg, material, financial, indirect, and so on)?
- What are the proposed mechanisms for sharing benefits?
- Are different mechanisms needed for sharing different types of benefits?

6. ACCOUNTABILITY AND TRANSPARENCY

- What is meant by accountability and transparency in relationships between communities and wildlife?
- Who should be responsible for ensuring accountability and transparency?
- To whom should different communities or groups be accountable for wildlife benefits?
- At what point does accountability and transparency become counter-productive?
- Are accountability and transparency tools, or should they be used to tax benefits?

7. SUSTAINABILITY

- What do we mean by sustainable community wildlife benefits?
- For how long do we want to define sustainability?
- What are the sustainable benefits? And for whom?
- Are there mechanisms for ensuring or enabling sustainability?
- What mechanisms exist for enabling or developing sustainability?

8. DISINCENTIVES TO COMMUNITIES

- What are the disincentives to communities to benefit from wildlife?
- How can such disincentives be removed or minimised?

WORKING GROUP 5: PRIVATE SECTOR ISSUES

1. ROLE OF PRIVATE SECTOR IN WMAs

- What or who is the private sector in the context of a WMA?
- What does community-based conservation mean to the private sector?
- Should the private sector care about community-based conservation? If so, why?
- Should the private sector have responsibility to make community-based conservation work? If so, how and why?
- Who should obtain benefits from community-based conservation and by what mechanisms (eg, fees, taxes, rents, and so on)?

2. SYSTEMS FOR ALLOCATING, AND LENGTH OF CONCESSIONS

- Are concessions an appropriate mechanism for contracting between the private sector and WMAs?
- Who allocates concessions to the private sector? What gives these agents or agencies the authorities to allocate concessions?
- What methods should be employed to ensure equitable (open, fair and transparent) allocation?
- How do we ensure that the conditions of the concessions are fair and equitable to all parties (eg, guarantees)?
- Who should be involved with determining what is fair and equitable?
- What mechanisms are required to ensure that all parties interests are met, and that business results in responsible conservation behaviour? Who should oversee this?

3. HIRING AND EXCLUSIVITY

- What does the private sector expect from local communities, local (district and regional) government, central government, other agencies (eg, NGOs) such as labour, land or concessions?
- Can local communities learn to protect their own best interest when dealing with the private sector? Who should be providing local communities with this type of assistance?
- Can control of use of wildlife outside protected areas be devolved to villages through establishment of WMAs (or some other structures)? If so, what is or are appropriate mechanism(s)?

4. MARKETING

- Do communities understand the markets for different types of wildlife use?
- How can villagers determine what their markets are in various sub-sectors?
- How can Tanzania's villagers optimise their markets vis-à-vis operators, other villages and other markets?
- Can communities cooperate to improve their marketability?

WORKING GROUP 6: PUBLIC RELATIONS

1. THE ROLE OF HUMAN COMMUNITIES IN NATURAL ECOSYSTEMS

- Are communities responsible players in conservation? If not, how can they become responsible?
- Should human activities play a role in conservation areas?
- If so, do communities understand what their roles, impacts and responsibilities is to conservation?
- If not, what should be done to bring about that understanding?
- Is it necessary to explain to conservation authorities and pressure groups that human activities can play a positive role?

2. ATTITUDES AND PERCEPTIONS AT VILLAGE, DISTRICT AND CENTRAL GOVERNMENT LEVELS

- How important are attitudes and perceptions to conservation management at village level?
- Should one attempt to influence perceptions and attitudes? If so how?
- How do issues of community control over wildlife resources influence their attitude towards it?

3. ROLE OF CONSERVATION EDUCATION AND PUBLIC AWARENESS IN TANZANIA

- Is there a role for conservation education and public awareness in Tanzania?
- If so to whom should it be directed? Who should provide such education and how should it be provided and at what cost?

4. PROMOTION OF TOURISM AND COMMUNITY-BASED CONSERVATION APPROACHES ABROAD

- Can community-based conservation be a marketing tool for tourism industry in Tanzania? If yes how should it be promoted?

PART 6

WORKING GROUP RECOMMENDATIONS

WORKING GROUP 1: LAND USE

Members:

Chairman: Hon P. Marmo, MP for Mbulu

Alternate Chairmen: Mr S. Mayeye, Director, Land Use Planning Commission
Dr G. Komba, Ministry of Agriculture and Livestock

Secretary: Mr L.M. Ole Moirana, Chief Park Warden, Ruaha

Facilitator: Dr N. Leader-Williams, PAWM

Hon Ole Koilah, MP for Loliondo

Professor MW Murphree, Centre for Applied Social Studies, Zimbabwe

Mr M.S. ole Parkipuny, Pastoralists Network, Loliondo

Mr L. Shao, Serengeti Regional Conservation Strategy

Mr R. Muheto, National Environment Management Council

Mr L.M. Ole Kosyando, ADDO, Arusha

Mr C.M.K. Malima, Regional Game Officer, Tabora

Ms N. Mwina, PAWM

Terms of reference:

General: The Working Group is provided with a list of topics upon which recommendations should be formulated. The Chairman is requested to focus and stimulate discussion and to ensure that all the relevant points are covered. There may well be areas of overlap between the discussions of working groups, but this is not problematic. The Secretary is requested to keep a record of the working group's recommendations, to report back to the full workshop upon conclusion of the working group session and to provide a written report for later use in formulating policy. After the start of the Working Group, the Facilitator will help the Chairman guide discussion and the Secretary with production of reports. The Resource Persons are requested to provide their advice and experience to their Tanzanian colleagues and help the Secretary to formulate recommendations.

Specific points:

- systems of land tenure;
- units of management: villages vs larger areas;
- compatible and incompatible uses; and,
- role of land-use planning.

DISCUSSION AND RECOMMENDATIONS

1. Systems of land tenure

The current systems of land tenure are governed by the Land Ordinance CAP 113 which offers:

- registered titles (with title deeds);
- deemed rights of occupancy under customary law; and,
- public lands, comprising areas such as NPs, GRs and FRs.

After discussion of the provisions of the Act, the group concurred that community-based conservation can be carried out under the current systems of land tenure. However, the group noted that customary and titled systems of tenure are not equally strong in contributing to villagers securing use rights over natural resources in their areas. Titles generally take precedence.

Present land tenure systems should permit community-based conservation to operate effectively because both titled and customary land law implies that villagers have rights to use natural resources within areas demarcated by village boundaries. However, this conflicts with the provisions of sectoral legislation governing use of natural resources which requires licensing for fishing, hunting and tree cutting. Accordingly, national legislation such as the Wildlife Conservation Act and the Forestry and Fisheries Ordinances need to be amended appropriately to give use rights/custodianship to communities concerned.

Tanzania's future land policy, which is in advanced draft, will address the issue of titles and customary rights in order to give the latter equal weight in the eyes of the law.

Accordingly, the group recommends that community-based conservation projects should work actively with villagers to help obtain title for village areas. Furthermore, the group recommends that national legislation where necessary should be amended to give use rights to the communities concerned.

2. Units of management

The creation of arbitrary units of management must be avoided. Workable units must take into account:

- population size of wildlife species in the area;
- cohesiveness/homogeneity of the community;
- economic viability and the form of use to which the area is to be put.

The group strongly recommends putting together the too fragmented legislation on the various natural resources. Furthermore, the category of Protected Areas called GCAs should be eliminated.

The ideal administrative units will vary under different conditions. However, the present government structure of villages, wards and divisions will form the basic units of administration. If wildlife and other natural resource management is the prime form of land use, it is recommended that this forms a good basis for changing ward and other boundaries as appropriate. This will ensure better cooperation if boundaries have an economic basis.

Cooperation will be achieved when a unit realises that their best interests are served by fostering such cooperation.

3. Compatible and incompatible uses

Some land uses incompatible with wildlife conservation comprise:

- timber harvesting in GRs and NPs;
- agricultural conversion in wildlife corridors;
- fenced ranches in wildlife corridors; and,
- unfenced mining.

Some land uses compatible with wildlife conservation comprise:

- beekeeping and fishing in GRs;
- tourist hunting in GRs;
- livestock herding; and,
- wildlife ranching.

Large-scale agriculture and transhumanant pastoralism are not compatible with wildlife conservation. However, fisheries, forestry and settled pastoralism (to some extent) may be compatible or be accommodated with wildlife conservation.

Agriculture: Large farms are likely to be incompatible with wildlife conservation while planned small-scale farms away from corridors may be compatible.

Pastoralism: Pastoralism which does not involve cultivation or clearing of woodland can be compatible with wildlife conservation. However, pastoralism involving radical habitat change, and destruction of vegetation, are incompatible and can be achieved only with behavioural change.

Rural people will take an interest in the various forms of land use that are compatible in wildlife-rich areas when it is in their economic and social interests.

4. Role of land use planning

The minimum land use planning unit will vary and should as far as possible be based on ecological conditions. However, planning needs to be based on administrative units, of which the village is the basic planning and proprietorial unit. Therefore nested planning is required to span ecological units.

Land use planning has an important role in avoiding conflicts. Planning agricultural activities well in advance within WMAs will help ensure that cultivation is placed in areas that avoid conflicts. Furthermore, successful WMA projects are bound to encourage immigration into areas of benefit-sharing, thereby affecting the long-term sustainability of those areas and reduced *per capita* benefits. Nested and complimentary plans prepared at different levels will help ensure that such conflicts are minimised. However, the group noted with concern that national planning, which started in 1969, has proceeded at only a slow pace and covered only three zones country-wide at that level, and only 2000 villages out of over 8000 at village level. The group recommends the planning capacity of the Land Use Planning Commission is strengthened to cope with this exercise, and its procedures are streamlined.

Plans should have a certain degree of flexibility. A review process should be scheduled, for example every five years. This time schedule is enough for testing the results during an evaluation process which precedes the review. However, plans become arbitrary if they are too flexible or too rigid/inflexible.

For plans to be workable/usable, they have to recognise the needs of the people and to involve them in the preparatory process. They have to be acceptable to communities at different levels. This means tiering the decision-making level and the implementation level. Following their preparation, plans have to be sanctioned and approved at the appropriate levels in Government before they become binding.

The group discussed whether, in order to implement land use plans for community-based conservation, it is necessary to review legislation governing national wildlife conservation areas such as National Parks and Game Reserves in order to allow certain communities to benefit from, or have access to, adjacent resources which formerly have been part of their life support system, for example pastoral grazing or beekeeping. This topic was discussed at length but consensus was not reached.

Comments from the floor

The floor enquired why it had not been possible to reach consensus on the issue of benefits from, or access to, resources in National Parks. It was explained that this discussion arose from a particular problem, that of Maasai wishing access to grazing in Serengeti NP. However, there was a wider principle here in that TANAPA policy does not permit consumptive use or livestock herding in NPs. Furthermore, even in countries like Zimbabwe which had adopted radical policies towards community custodianship of wildlife resources outside protected areas, they still followed a dual policy of unoccupied protected areas alongside the access provided to communities living among wildlife in communal lands.

The floor noted that the group had placed emphasis on incompatibility of agriculture with wildlife. However, the floor noted that the group should take note of differences of pastoralism in the north with that in other parts of the country.

The floor concurs with the group's emphasis upon the importance of land use planning to rationalise viable land use at the village level.

The floor noted that if the workshop could produce one major recommendation, it should be as follows:

For community-based conservation to work effectively, emphasis should be placed on the role of the Local Government Act and village ownership over their lands through village title deeds. If this then conflicts with other forms of legislation, for instance with the Wildlife Conservation Act, such legal instruments should be changed to blend with those of the village, thereby ensuring that villages have proprietorship or custodianship over the land and the wildlife on that land.

WORKING GROUP 2: ESTABLISHING AND MANAGING WMAs

Members:

Chairman: Hon Ole Moloimet, MP for Monduli
Secretary: Mr P.K.N. Marenga, PAWM
Facilitator: Mr I. F. Ndunguru, RGO Ruvuma
Mr M.A. Ndolarga, Director of Wildlife
Mr A. Mugisha, Lake Mburo National Park, Uganda
Ms E. Kerario, National Environment Management Council
Mr S.L. Munisi, Regional Game Officer, Mbeya
Mr G. Matiko, Forestry Division
Mr H.J. Ndolezi, Principal State Attorney, Department of Wildlife
Mr H.B. Orondi, Commission of Co-operatives
Mr R.M. Salehe, Regional Game Officer, Lindi
Mr E. Moyo, Ministry of Agriculture and Livestock
Mr P. Bergin, Community Conservation Service, TANAPA

Terms of reference:

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Specific points:

- purpose, definition and establishment of WMAs;
- WMAs in the context of existing initiatives in community conservation;
- planning in WMAs: from the bottom up;
- monitoring and setting levels of acceptable use;
- prioritisation and pilot areas;
- role of other sectors in managing WMAs; and,
- donor and technical assistance.

DISCUSSION AND RECOMMENDATIONS

1. The purpose and definition of WMAs

Wildlife Management Areas (WMAs) can be defined as:

Areas which are not a National Park, Game Reserve, Forest Reserve or the NCA and which are legally set aside by the community for their sustainable management of natural resources.

WMAs should not be a gazetted protected area. Rather they will be community land governed by local bye-laws giving exclusive use rights to villagers owning the land. WMAs should be managed by the local community, as opposed to central government.

2. WMAs in context of existing institutions

WMAs do not conflict with existing wildlife authorities as each has a defined area of jurisdiction. In WMAs, the Department of Wildlife will be devolving powers and responsibilities over management of wildlife in Game Controlled Areas and Open Areas to the community. Unlike other types of conservation area, notably the protected areas, WMAs will have the advantage of providing use rights to local people.

3. Planning for WMAs

It is recommended that planning in WMAs will follow a bottom-up approach and confer upon the community powers to manage their resources. The aim of adopting this approach is to instill a

sense of ownership and responsibility and hence better management of the resource. The implications of this approach are that some authorities will have to relinquish some of their powers. A further implication will be greater transparency in how decisions about resource use are made. Introducing a bottom-up approach will require a two-way learning process in which stakeholders learn from each other.

4. Monitoring

Activities in WMAs should be monitored and sustainable levels of utilisation set. Monitoring should be done jointly by the community and government authorities. The expertise of local communities should be harnessed to the professional advice of wildlife officers through the appropriate village committees.

5. Prioritisation and pilot areas

WMAs should be established where communities are prepared to accept and to execute their responsibilities towards wildlife management. The wildlife authorities should create an enabling environment for communities to establish WMAs. WMAs should not be established wholesale but allowed to evolve. From a conservation viewpoint, priority should be given to areas where protected areas are being encroached or threatened.

6. Role of other sectors

There should be a two-way system of communication between WMAs and all wildlife authorities who are the custodians of wildlife in the core protected areas. TANAPA and NCAA should have an advisory role in the management of neighbouring WMAs, should participate in decision-making on development within those WMAs and should develop extension services.

Forestry, fisheries and other sectors (especially those related to land use) should be incorporated into planning and management as needed and appropriate.

7. Donor and technical assistance

Donor aid and technical assistance, from both internal and external sources will be needed initially. The role of donors and technical assistance should be supportive and supplement the efforts of the community after the community has identified its own needs. However, WMAs should be designed to become self-supporting in the long term. The involvement of the private sector in wildlife management activities should provide financial support which will be more sustainable in the long run.

Comments from the floor:

The floor agreed that WMAs should not be considered a protected area, but that a WMA should act as a rational form of conservation in Tanzania. A WMA must be recognised and approved by the Department of Wildlife so as to meet criteria in terms of control. WMAs should be regulated by local bye-laws, which will serve as secondary regulations for the Department of Wildlife, and which will enable villages and WMAs to make their own bye-laws. The Wildlife Department, together with TANAPA and NCAA in WMAs bordering their areas, should participate in defining, planning and monitoring of WMAs, but only in an advisory capacity, rather than having any direct control. However, the floor enquired who is going to pay for these authorities to provide support?

The floor noted that the group had recommended that WMAs should be established in GCAs and Open Areas, but not in Forest Reserves. But, in western Tanzania there are GCAs which are also Forest Reserves. Would these not qualify as WMAs?

The floor noted that the name WMA has been proposed because these areas are governed by wildlife people. There is still a need to consider the establishment of Natural Resource Management Areas, which may, or may not, be wildlife areas. The WMA approach compartmentalises water, fisheries, forestry and wildlife. However, out in the villages, people deal with everything. If we compartmentalise, then tomorrow people will come from Forestry and start talking about *Forestry Management Areas*.

The group noted that with regard to western Tanzania, there should be very close coordination between the fisheries, forestry, and wildlife sectors. This will require a review of existing natural resources laws to make them conform to one another, as had already been recommended by Group 1.

WORKING GROUP 3: PARTNERSHIP AND COMMUNITY CONSERVATION

Members:

Chairman: Hon M.M. Kihaule, MP for Ludewa District

Secretary: Mr I. Swai, Project Manager, Moyowosi Game Reserve

Facilitator: Mr E. Barrow, AWF, Nairobi

Hon E. Losoiki, Simanjiro District

Mr P. Mshanga, Assistant Conservator, NCAA

Mr W.J. Mapunda, Project Director, Serengeti Regional Conservation Strategy

Dr D. Hartley, Ruaha Ecological Wildlife Management Project, Iringa

Mr O.M. Karia, Fisheries Division

Mr M. Lobooki, Extension Warden, Serengeti National Park

Mr B. Connors, Cullman Scheme Project Co-ordinator

Mr M. Peterson, Dorobo Tours and Safaris

Mr Ali Songea, Fundi, Songea

Ms M. Zacharia, Licensing Section, Wildlife Department

Dr R.H. Lamprey, PAWM

Mr C. Msanja, PAWM

Terms of reference:

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Specific points:

- building partnership and trust between wildlife authorities and local communities;
- structures: traditional, village and district;
- structures: wildlife authorities (WD, TANAPA, NCAA) and other sectors;
- manpower: role of village staff;
- manpower: role of CCWs and RGOs/DGOs (or equivalent wildlife staff);
- training and recruitment: village staff; and,
- training and recruitment: wildlife and natural resources sector staff.

PREAMBLE

The group first wished to define their idea of a WMA. A WMA is defined as: *An area of communal land either in a GCA or an open area, in which there are wildlife and people, who have use rights over the wildlife, which they have to manage in a responsible fashion. The size of the area can vary depending on the wildlife dispersal area, animal densities and could incorporate more than one village. The Department of Wildlife, and others where appropriate, for instance TANAPA and NCAA, will work in partnership with these WMAs to ensure proper and sustainable utilisation, both consumptive and non-consumptive through the provision of technical assistance at the village and WMA management levels. Should members of WMAs act in an irresponsible manner, then this right of use can be withdrawn by the Department of Wildlife.*

A WMA needs an appropriate name which translates well into Kiswahili, and that catches like TANAPA's Ujirani Mwema logo.

There are obviously many other issues that should be discussed with respect to this, for instance types and amounts of benefits that accrue to the various stakeholders, licensing mechanisms and so on. However, Group 4 is addressing some of these issues.

DISCUSSION AND RECOMMENDATIONS

1. Building partnership and trust between wildlife authorities and local communities

A partnership in the context of community-based conservation relates to an agreement between wildlife authorities, for instance the Department of Wildlife, or TANAPA or NCAA, and local communities or villages to abide by a set of conditions and obligations with regard to wildlife conservation and utilisation, both consumptive and non-consumptive.

Local people at village or WMA level will have the responsibility, through their village standing committees, together with possibly, a village wildlife committee to undertake the following:

- to establish either on their own or in association with other neighbouring villages, a WMA where feasible;
- to ensure the continued existence of wildlife on a sustainable basis through proper wildlife management and land use planning; and,
- to ensure that revenues accrued are used beneficially and transparently.

In the case of hard edge protected areas, for instance a NP or GR, additional mechanisms will need to be determined in order to channel tangible benefits to the villages.

The Government, through the different wildlife authorities, will act as an overseer and retain the authority that will enable villages to continue using the WMAs on a sustainable and responsible basis, or to withdraw such use rights should conditions of the agreement be breached, for example through improper wildlife use.

Local communities should have rights of use of natural resources in WMAs and in the setting and management of sustainable wildlife quotas. However, it is recognised that WMAs will need professional assistance from the Department of Wildlife in the setting of quotas.

2. Structures: traditional, village and district

Villages in Tanzania have village governments which incorporate various standing committees which can be harnessed for community-based conservation activities. This could be done by establishing village Natural Resources Management Committees comprising village representatives from both the formal and informal sections from each relevant village institution.

The Wildlife Department acknowledges, through the Wildlife Conservation Act, the existence of Authorised Associations, which can include villages. But, in order to be effective for community-based conservation the Village Natural Resources Management Committee should, through the Village Council and Assembly, be empowered to make conservation related bye-laws with technical assistance from, for example, District Game Officers.

Decisions relating to the distribution of revenues accrued from WMAs should be decided by the Village Council and ratified by the Village Assembly, so as to ensure that the village is the major beneficiary.

3. Structures: wildlife authorities (WD, TANAPA, NCAA) and other sectors

It is recommended that the Department of Wildlife, TANAPA and NCAA incorporate community-based conservation programmes in their institutional structures by establishing a "Community Conservation Section" and a "National Coordinating Committee" to integrate all community-based conservation activities in all the wildlife authorities. Lessons can be learned from the example of the CCS in TANAPA.

4. Manpower: role of village staff

It is acknowledged that there are insufficient wildlife personnel to manage the vast areas where wildlife occurs outside the protected areas in the country. Through the concept of community-based conservation and the establishment of WMAs, the wildlife authorities should re-focus the activities of their existing manpower to control any unsustainable use of the resource. This can be achieved in a meaningful partnership with local communities by the training and employment of village scouts.

5. Manpower: role of CCWs, RGOs, DGOs

Wildlife personnel in the various wildlife authorities (Department of Wildlife, TANAPA, NCAA) should have a leading role in encouraging the success of community-based conservation by serving in a facilitatory role.

When villagers have been given powers over wildlife in their areas, certain national interests may need to override, for example issues like the conservation of black rhinos or wild dogs. Accordingly, it is recommended that overall coordination is achieved through the wildlife authorities.

6. Training and recruitment: village staff

Villagers should be involved on a voluntary basis to conduct community-based conservation activities as part of their regular village activities.

Training in conservation education for villagers and for village scouts should be on-the-job. It should be conducted wherever possible by villagers with technical assistance from the existing wildlife authorities and other relevant sectors, for example, community development. Training should focus on natural resource management and conservation, legal aspects of conservation and so on.

7. Training and recruitment: wildlife and natural resources sector staff

It is recommended that training in community-based conservation should be incorporated into the existing institutional curriculum by upgrading and updating the syllabi of Mweka and Pasiansi. Furthermore, wildlife personnel in general need to be re-sensitised to community-based conservation through seminars and workshops.

Comments from the floor:

The floor recognised that discussion had centred around future WMAs settled by humans, relative to unsettled protected areas. However, in the case of Ngorongoro, people live within a protected area. The NCAA has not yet recommended how it will deal with villages within the NCA and how this can be reconciled with the concept of a WMA. The group responded that it had dealt only with GCAs and Open Areas. The floor then further enquired what the local people in Ngorongoro would be told and how they would be involved in the whole process. The Director of Wildlife noted that it had yet to be resolved how we are going to deal with the people in the NCA.

The floor noted that we are in an era when social scientists should have a major role in the field of conservation, rather than leaving the field to the biological scientists. The floor enquired what was meant about involving the local people in conservation planning. The group responded by saying that the Department of Wildlife will have to establish a policy to involve local people in the whole process of establishing and managing WMAs.

The floor noted that the title of this working group contains the word *partnership*. Zimbabwe, like Tanzania, contains a British history. Zimbabwe was incorporated into a Central African Union with Zambia and Malawi. The whites in Southern Rhodesia used the analogy of a rider on a horse. After twenty years, they got bucked off. The analogy should not be lost. Here, with this group's presentation, the Government will be the rider and the communities will be the horse. The current philosophy for Government is to co-opt communities for their own uses. Instead, the Government should move towards extension and advice, and only in the last instance should it move to control.

WORKING GROUP 4: RELATIONSHIP BETWEEN LOCAL COMMUNITIES AND WILDLIFE RESOURCES

Members:

Chairman: Hon A. Mwinyimusa, MP for Sumbawanga Rural
Secretary: Mr M.K.S. Maige, Serengeti Regional Conservation Strategy
Facilitator: Mr B.N.N. Mbano, Wildlife Department
Mr H.K. Mwima, National Parks and Wildlife Services, Zambia
Mr A.R. Kijazi, Senior Planner, Ngorongoro Conservation Area
Mr M.M. Lyimo, Chief Preventive Officer, Department of Wildlife
Mr S.D. Kihaule, Project Manager, Maswa Game Reserve
Mr V. Lyamuya, Regional Natural Resources Officer, Morogoro
Mr M. Mwanda, Ministry of Community Development
Mr J. Nyanchuwa, Fundi, Mugumu
Ms J.C.D. Sandi, Prime Minister's Office
Mr A. Hill, Cullman Reward Scheme, Robin Hunt Safaris
Dr H. Krishke, Self-help Specialist, Selous Conservation Programme
Dr M.R. Stanley Price, African Wildlife Foundation

Terms of reference:

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Specific points:

- existing and proposed legal mechanisms for using wildlife;
- types of benefit available from wildlife;
- stakeholders: village, district and central government;
- mechanisms for sharing benefits;
- accountability, transparency and sustainability; and,
- incentives and disincentives (access to PA resources and infrastructure, provision of facilities, and so on).

DISCUSSION AND RECOMMENDATIONS

1. Existing legal mechanisms for using wildlife

The existing legal mechanisms for using wildlife comprise:

- The Wildlife Conservation Act;
- The Tanzania National Parks Ordinance; and,
- The Ngorongoro Conservation Area Ordinance.

The Wildlife Conservation Act governs legal use of wildlife in all areas other than NCA and National Parks, but is restrictive. Authority for using wildlife is granted through the issue of licences and special permits by the Director of Wildlife. Communities can use wildlife under a special permit that entitles them to harvest wildlife as Authorised Associations.

These mechanisms are clearly inadequate for future community-based conservation. For example, it is not appropriate for communities to deal commercially with wildlife and its products or to retain the revenues for their own use. The pilot programmes currently operating under SCP and SRCS do so through a special permit issued by the Director of Wildlife. The group strongly recommends that use of wildlife outside protected areas by communities should be formalised legally in a manner that fully entrusts wildlife to communities as custodians.

Current wildlife law does not permit any form of community-based wildlife use. Communities should be recognised and be granted use rights of wildlife resources on their land. However, the Director of Wildlife should continue as the chief custodian of all wildlife in the country.

No legal mechanisms exist that can be used as legal ways of collecting, saving and disbursing any proceeds accruing from community-based wildlife benefits. However, there is considerable potential to develop such mechanisms through existing village structures and cooperative laws.

2. Proposed legal mechanisms for using wildlife

The control of hunting of wildlife outside Game Reserves should be devolved to local communities in order to confer proprietorship of that wildlife upon communities. Control should be given only on a defined (with a title deed) and/or a recognised piece of land (traditional boundaries). The transfer of use rights for wildlife should be a gradual process to include extension, conservation education and training on wildlife management to communities. This education component shall enable communities to undertake responsible management of wildlife in conjunction with professional expertise from the Department of Wildlife. The community shall apply to the Director of Wildlife when they feel they have acquired the required level of competence to replace his authority and manage wildlife on their own. The Department of Wildlife must provide all necessary assistance to effect a smooth transfer of responsibility.

Subsidiary legislation is a valid mechanism for regulating the use of wildlife. The legislation recommended for a WMA should be ratified to accommodate or be used as appropriate binding mechanisms for the use of wildlife in those areas.

The principles adopted by pilot programmes presently operating in Tanzania can be widely applied. But before this happens, there must be sufficient knowledge on the ecology, socio-economics and traditional land use patterns, together with other relevant information, to warrant a recommendation for application to new areas.

Benefits from voluntary schemes such as those operated by certain tourist hunting outfitters should not be binding. However, initiatives by the private sector should be encouraged, but not imposed.

The following are recommended as appropriate wildlife institutions for the legal use of wildlife:

- District Natural Resources Committee: this should act as an advisory body;
- Village Association: this will comprise one or more villages forming an Authorised Association to manage a WMA, and this will become a legal body. Technical advice from wildlife professionals can be sought at this local level; and,
- Village Wildlife Committee: this comprises the technical body for wildlife utilisation.

3. Types of benefits from Wildlife

The range of benefits from wildlife can include:

- meat;
- skins and other by-products;
- revenue/money;
- employment;
- wise use of the land and its resources (on marginal land, wildlife utilisation is the only wise option for using land);
- protected area facilities and social amenities, such as schools or dispensary.

All these types of wildlife benefits are sustainable as long as there is proper planning and management, and a functional extension service.

Wildlife utilisation should be allowed to take place in an area that has an approved land use management plan produced in consultation with the local community which is granted use rights over the resource. A zoning system in the plan will stipulate the different forms of wildlife utilisation in each of the zones at a point in time to avoid conflicts between different users.

4. Stakeholders in community-based conservation

The primary stakeholders in wildlife conservation comprise:

- local communities living around protected areas and among wildlife;
- District Councils, giving up land to establish protected areas;
- Central Government, which receives a proportion of fees from the department of wildlife and taxes from the wildlife parastatals and the private sector;
- safari operators using wildlife both consumptively and non-consumptively.

The relative distribution of revenue and benefits to the stakeholders should consider the relevant roles and effort invested into conservation of the resource and the institutional management costs. For example, TANAPA, which covers its running costs, should retain a higher proportion of revenue it earns from wildlife. NCAA, with the two major objectives of developing the community and of conserving wildlife should distribute its revenue in equal proportions. Game reserves will have to submit significant revenue to Central Government under which it is managed. In village/WMA/GCA land, a greater proportion of revenue should be paid to local communities. It is recommended that the relative distributions of revenue from Game Reserves and GCAs/ WMAs be distributed in the following way:

Game Reserve:

Game Reserve Retention (to meet management costs)	50%
Tanzania Wildlife Protection Fund (for wildlife projects)	10%
Treasury	25%
District Council (as an opportunity cost of the Game Reserve)	15%

GCA/WMA and Open Areas:

Local community (for management and community development)	75%
District Council	15%
Tanzania Wildlife Protection Fund	10%

It is also recommended that NCAA and TANAPA share their revenues, taking into consideration their running costs and the taxes they currently pay to Central Government.

Central Government should retain the mandate to announce the proportions. Before that, it should work out the mechanisms it proposes to use to disburse revenue, and involve all relevant authorities concerned with natural resource management such as the Ministry of Tourism, Natural Resource and Environment, and local communities representatives from the grass-roots to Members of Parliament.

5. Accountability and transparency

Accountability in community-based conservation calls for the commitment of local communities to manage wildlife on their land, following the transfer of use rights from the Director of Wildlife to the village. Village scouts and other staff have to demonstrate their capability in managing this resource.

Transparency requires the communities to conform faithfully with hunting ethics and other animal welfare concerns without supervision by other authorities, and to collect, expend, monitor and closely track all revenues collected from wildlife utilisation.

An auditor from the district should be responsible for auditing the accounts of villages involved in community-based conservation at least once per year to ensure transparency. District wildlife authorities, through their participation in Village Wildlife Committees, should check and verify the utilisation procedures to ensure accountability. Hence WMAs should be accountable to the following:

- the District Council and its appointed auditor; and,
- the District Game Officer.

Accountability and transparency become counter-productive when auditing and check-ups become too frequent. At that point, local communities will tend to doubt their entrusted responsibility for managing the resource.

6. Sustainability

Sustainable community-based wildlife benefits comprises good resource management in both the short and long term with significant benefits to local communities. In order to manage an area at an optimal level, sustainability should be spelt out in a land use management plan of the area. Of prime importance to the planning process is the involvement of the local community and of existing institutions.

The appropriate mechanisms to ensure sustainability are the proper planning and the proper management of the resource and its resource base. This should be achieved through a land use management plan for the area in question.

7. Disincentives to communities

The present game fee structure is so complex and arbitrary that it serves as a great disincentive to local communities. A review of this system is recommended as a way to remove this disincentive. Other disincentives include:

- changes of policies and rules without consultation;
- antagonistic relationships between communities and staff of the wildlife authorities; and,
- systems hinging on political influence, especially after the collapse of that political system.

Comments from the floor:

The floor noted that there may be some confusion between a bye-law and a subsidiary legislation.

The floor noted that the distribution of revenues to district councils would, at best, only trickle down to communities. The Director of Wildlife noted that, at present, the big guns in the districts want the money to go to them, while the centre is now moving towards making payments directly to the community. Indeed, most villages now have bank accounts.

The floor enquired what is the role of an NGO? If it is a local NGO, then, the people will get something. If an international NGO, then that is something else. It was clarified that this question on NGOs was not with regard to revenues, but related to the technical role of an NGO concerning WMAs. The group responded that NGOs have a major role to play, just as important in some places as the Wildlife Department. NGOs can play a role in such areas as institution building and in skill development, and so on. However, these roles should be carefully defined, and we should be careful not to have too many NGOs.

The floor noted that benefits still need to accrue to a broader group. For example, there are national and district needs, which the community should share. The group believes that a District Council should distribute benefits evenly throughout the district. The problem is that our District Councils, as they are now, do not have the discipline necessary.

The floor concurred that our local communities should have as much authority as possible. If we give people responsibility at the local level, we are not taking seriously enough the reality that they will act responsibly. People give much more than they receive at a local level. Accordingly it is important that communities should benefit more from wildlife. The Director of Wildlife noted that the money from the Tanzania Wildlife Protection Fund should be ploughed back into the communities who suffer the most.

The floor noted that, if we have no problem understanding why coffee, tea, cotton growers "benefit" from their good fortune to be in their particular ecosystem, why do we have problems with people who coexist with wildlife? We have mechanisms for distributing the benefits from cash crops to the nation and the district, so why should there be problems with wildlife on people's own land? A note of caution was expressed by the group that wildlife has viewed differently by tradition and that it is free-ranging and can be looked upon as a common resource.

WORKING GROUP 5: PRIVATE SECTOR ISSUES

Members:

Chairman: Hon G Itatiro, MP for Ulanga

Secretary: Dr J Kessy, WWF Country Office for Tanzania

Facilitator: Mr M Bess, AWF, Nairobi

Mr G Owen-Smith, Integrated Rural Development and Nature Conservation, Namibia

Mr P Morris, USAID, Dar es Salaam

Mr G Ngwenya, Hunting Manager, TAWICO

Mr LM Hassan, Serengeti Wildlife Research Institute

Mr J Madaha, Tabora Beekeepers Cooperative Society, Tabora

Mr H Simons, Dutch Community Project, Mkomazi Game Reserve

Mr GT Moshia, Research Training and Extension, Wildlife Department

Dr R Tillman, World Bank, Washington

Ms G Kamuzora, Planning Commission

Mr E Tarimo, Projects Co-ordinator, Wildlife Department

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Specific points:

- role of the private sector in WMAs (or equivalent);
- systems of allocating, and lengths of, leases;
- hiring and exclusivity; and,
- marketing.

DISCUSSION AND RECOMMENDATIONS

1. Role of the private sector in WMAs

In the context of community-based conservation, the private sector is any individual, group or association engaged in:

- tourist hunting;
- tourist game viewing and non-consumptive utilisation, such as photographic safaris; and,
- ranchers and farmers of wildlife.

Community-based conservation implies a type of partnership between communities and the private sector. The private sector is the milk cow: it should provide the milk without being milked to death. That is to say, community-based conservation implies sustainable use of wildlife resources. This is important because it guarantees longer-term use and benefits (ie, the cow still provides the milk).

The private sector should care about conservation because it is in their long-term interests. The key to the relationship is self-interest and security. The private sector wants to have security, and it is in their interest that communities conserve their resources to enable those long-term benefits to be realised.

The private sector should share the responsibility to make community-based conservation work because it is in their own interest. But, the cow should not be milked dry. The private sector cannot and should not provide everything, and there are roles for various authorities and

agencies (eg, Wildlife Department, NGOs and so on). However, the private sector should provide assistance in the form of:

- education and training;
 - awareness;
 - ethics and standards; and
 - promotion;
- but, without milking the cow dry!!

The village should be the common denominator for wildlife management. The village (or group of villages) should have the authority and responsibility to negotiate with outside agencies to obtain the maximum benefits possible on a sustainable, responsible conservation basis. The community should be the direct recipient of benefits and the following process is recommended:

- the village (or villages, whichever is appropriate) should form Natural Resource Management Committees;
- the village Natural Resource Management Committee should develop sustainable natural resource/wildlife management plans and objectives;
- the Government should assist with drawing up natural resource/wildlife management plans and approve it once it is satisfied with the plans;
- once approved, the plan becomes the basis upon which the village negotiates its natural resource use;
- the village can then negotiate directly with the private sector regarding various forms of wildlife use;
- communities will pay a certain fee to the Government for particular wildlife resources (eg, hunting, tourist bed/nights, and so on), according to a schedule of fees agreed upon within the natural resource management plan. These fees should cover the costs to the Government to provide services, extensions, inputs to villages for natural resource/management activities.

2. Systems for allocating, and length of concessions

3. Hiring and exclusivity

Concessions are the appropriate mechanism for contracting between the private sector and village(s). However, the term *concession* is very broad, and it ranges from exclusive contracts to access rights. Therefore, each community and each type of project will require its own type of concession. Terms and conditions for different types of concessions might include or exclude various practices/activities.

Villages should be the corporate body which has the legal right to allocate concessions with the need to understand that the private sector seeks security, tenure, responsible and reciprocal relations, and assurances on such things as access. The Village Act provides the legal framework for granting these concessions.

Appropriate mechanisms should exist at the village level within the Village Natural Resource Management Committees that will ensure open allocation of concessions and transparency. Standard practices such as public minutes of meetings and discussions (made available to all community members) should ensure transparency.

Conditions of concessions should be equitable to all parties when properly elected representatives, and duly-constituted bodies negotiate with the private sector for the village. Other assistance can be obtained from NGOs, government agencies, business associations (eg, tourist and hunting associations) to ensure that villages get the best deal. This process will also assure the private sector that villages will adhere to the terms and conditions agreed upon.

Villages should be able to ask DGOs, RGOs, RNROs, and other government bodies/agencies for assistance to negotiate and initiate contracts/concessions with the private sector that are in the best interests of the communities. However, relevant agencies should take the initiative to keep

villages informed about the opportunities and potential for improving natural resource use (through extension, promotion, and so on).

4. Marketing

Communities often understand the potential market for different types of wildlife utilisation. However, there is a need for NGOs and other technical advisors (including the Government) to appraise communities of their opportunities, and to encourage them to take advantage of those opportunities.

Villages can cooperate to improve their marketability. Under certain circumstances, it may be valuable for several villages to form themselves into larger natural resource/wildlife management units. This can improve their negotiating position with outsiders. It may also improve their biological and market value of the land.

The term *Wildlife Management Area* does not cover the broad spectrum of resources available to communities to utilise for their benefit. The term *Natural Resources (Mali asili)* captures better the concept of community-based conservation.

Comments from the floor:

The floor noted that the private sector should provide education, as well as other benefits. However, when villages have the facility to make income from their wildlife, the revenue they receive should go towards such facilities as education, health, and so on rather than the private sector having to pay repeatedly (if the private sector is the milk cow and a five-times-a-day milk cow, training should not be the fourth milking). The issue of paternalism was raised earlier. The same paternalism we are complaining about should not be returned to by making the private sector responsible for what villagers do themselves.

The group responded by noting that training meant very simple things, for example, good operators could train trackers and improve their skills, that is to say basically training on-the-job. This will leave the community in a better position and will make their services more valuable to the private sector. The floor responded that this is very acceptable to the private sector.

The floor enquired how villages should understand the legal aspects of concessions. The group responded that one has to start from somewhere. Villages may make mistakes early on, but they will learn from them. And, they can receive support and advice from the Wildlife Department and other government legal advisors. Concessions initially should be of a short-term nature (1-2 years), so that these mistakes will not cost too much! Then, villages can re-negotiate and get the best deal. Moreover, they can make use of all the Government's legal resources, but in an advisory capacity. The floor concurred that use of legal advisors to help in defining concessions will be important especially early on to scrutinise agreements.

The floor noted that the issue of division of benefits conflicts with the recommendations of Group 4. Who is Government (village, district, regional or central)? The recommendations of Group 5 primarily refers to Central Government. Why should district governments not get some of the funds? The group responded that it had looked at this issue of government revenues from different angles. But, the group felt that money should be paid directly to the village, and then the Government can tax village income just like it does with anything else. If private sector money for villages goes to the Government, experience in Tanzania shows that very little of this money will ever find its way to the village level, and villagers have heard too many false promises. Village people should benefit directly from wildlife and should be taxed for those benefits just like any other economic activity.

The floor noted that it should not be believed that village people are ignorant. They are not. Lawyers who come from these villages can provide excellent advice to their people. Why not give people the opportunity to manage their own affairs? This is a new age, a new era and people should be given power over their own affairs.

WORKING GROUP 6: PUBLIC RELATIONS

Members:

Chairman: Hon Dr D. Mwita, MP for Serengeti District
Alternate Chairman: Mr J.A. Kayera, PAWM
Secretary: Mrs R.K. Tibanyenda, PAWM
Facilitator: Mr M. Infield, Lake Mburo, Uganda
Ms G.G.J. Lusiola, Kenya Wildlife Services, Nairobi
Mr B.M.C. Midala, Regional Game Officer, Mara
Mr M.M. Oloto, Oliver's Camp
Mr G. Bigurube, Project Manager, Selous Game Reserve
Mr S.A. Kaihula, Research Training and Extension
Ms T. Nicolassen, Dutch Community Project, Mkomazi Game Reserve
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Mr G. Overton, PAWM

Terms of reference:

General: The Working Group is provided with a list of topics upon which recommendations should be formulated. The Chairman is requested to focus and stimulate discussion and to ensure that all the relevant points are covered. There may well be areas of overlap between the discussions of working groups, but this is not problematic. The Secretary is requested to keep a record of the working group's recommendations, to report back to the full workshop upon conclusion of the working group session and to provide a written report for later use in formulating policy. After the start of the Working Group, the Facilitator will help the Chairman guide discussion and the Secretary with production of reports. The Resource Persons are requested to provide their advice and experience to their Tanzanian colleagues and help the Secretary to formulate recommendations.

Specific points:

- explaining role of human communities in natural ecosystems;
- attitudes and perceptions at village, district and central government levels;
- role of conservation education and public awareness in Tanzania;
- promotion of tourism and community conservation approaches abroad.

PREAMBLE

The group wished to define the meaning of "community" and "public relations" in the context of community-based conservation in Tanzania, as follows:

Community: *A social group or unit of people (represented by "the village") living in or around wildlife rich areas and interacting with those natural resources.*

Public Relations: A process of creating relationships between all stakeholders in wildlife resource management at the international, national and local level through:

- dissemination of information and creating awareness;
- establishing a dialogue;
- providing a two way channel for views and advances; and,
- demonstrating benefits.

DISCUSSION

1. The role of human communities in natural ecosystems

Communities may or may not be responsible players in conservation, but they can become responsible players. The group recommends that responsibility for management should be returned to the communities and they should be actively involved in benefit sharing. It is necessary to ensure that they are given the required tools and resources to manage (eg, training, information, financial assistance). Practical examples include the SCP in Ruvuma Region and the SRCS in the Serengeti Region.

Human activities should play a role in conservation areas. Considering the various categories of protected area that exist in Tanzania, human activities which are compatible with wildlife conservation should, where appropriate and desirable, be encouraged. For example, honey-hunting and fishing is allowed in Ugalla Game Reserve, and this has helped check poaching activities.

Communities can understand what their roles, impacts and responsibilities are towards conservation for traditionally many communities conserved natural resources. In general, communities are not aware of their roles today, because impacts and responsibilities to conservation are now more complex than they were. A better understanding of the role of communities in conservation should be brought about through the following mechanisms:

- providing education and awareness;
- changing existing legislation to give responsibility to the community for managing wildlife resources; and,
- making sure that changes in policies are disseminated, understood and implemented by all parties concerned, and that local communities are given the opportunity to contribute to the formulation of policies.

It is necessary to explain to wildlife authorities and pressure groups that human activities can play a positive role. A functional public relations unit must be established which will first target the managers of the wildlife resources. It will then be necessary to establish a network nationally and internationally to ensure that the community-based conservation message is properly understood and respected by all parties.

2. Attitudes and perceptions at village, district and central government levels

Attitudes and perceptions towards wildlife and natural resource management at village level are very important. We are aware that current attitudes are generally negative. We believe that it is necessary to change this by emphasising the sharing of responsibility and the use of a participatory approach to wildlife management. Attitudes and perceptions will be best changed by giving ownership and responsibility to the community, not just benefits.

3. The role of conservation education and public awareness in Tanzania

Conservation education and public awareness is important in Tanzania. The use of appropriate and relevant conservation education and public awareness programmes is very important because:

- communities do not have sufficient understanding of their roles in and impacts on natural resources management; and,
- attitudes and perceptions cannot be changed without providing knowledge.

Conservation education should be directed to any group that may affect natural resources management from the top to the grass roots (eg, politicians, planners, trophy dealers, students, and local people). Government institutions responsible for managing natural resources should provide such education through game scouts, community-based conservation officers, and through people with knowledge in the community. Methods of imparting this knowledge should include the use of many channels, eg, audiovisual aids, radio, drama, pamphlets and school curricula. It is important to make use of all available sources of information, and most especially of valuable local knowledge. Government should demonstrate the will and commitment to conservation education and awareness raising by establishing a funding mechanism for it. All stakeholders in wildlife should contribute (eg, tourist operators, villages, NGOs, and so on)

4. Promotion of tourism and community-based conservation approaches abroad

When properly organised, community-based conservation could be a very important marketing tool for the tourism industry in Tanzania, through public relations activities, by educating both the promoters (tour operators and guides) and the tourists themselves to understand and value the interactions and inter-dependency of the people of Tanzania and their natural resources.

5. The definition of Wildlife Management Areas

WMAs should include open areas and GCAs. The Government must define clearly who owns the land and who owns the resources before WMAs can become effective. WMAs should act as a bridge between the local community and the wildlife resource. It is suggested that WMAs should be called Community Wildlife Management Areas, and that a suitable Swahili title should be developed.

RECOMMENDATIONS

- If public relations is to be more than political rhetoric, responsibility for management of natural resources should be returned to the communities, under appropriate national supervision;
- human activities which are compatible with wildlife conservation should, where appropriate and desirable, be encouraged;
- changes in policies to enable community-based conservation in Tanzania must be disseminated, understood and implemented by all parties concerned, and local communities should be given the opportunity to contribute to the formulation of these policies;
- a functional public relations unit must be established which will be charged with first targeting the managers of the wildlife resources;
- the fostering of positive changes in attitudes towards wildlife and protected areas should be achieved by giving back responsibility for management to communities, which in turn will create a sense of ownership;
- the Government should demonstrate the will and commitment to education and awareness raising by establishing a funding mechanism for it. All beneficiaries from wildlife should contribute (eg, tourist operators, villages, NGOs);
- the Government should establish clear policy on the ownership and tenure of land and wildlife resources on this land. WMA should be titled Community Wildlife Management Areas in a Swahili translation (this would have a much better meaning rather than some English acronym).

Comments from the floor:

The floor noted that the greatest potential for revenue or income to local communities from wildlife will come from the hunting industry. Accordingly, it is necessary to understand how the hunting industry in Tanzania can compete with the hunting industry in other countries. We believe that the fee structure for hunting in Tanzania is complicated, more so than in some other countries. The floor notes that there is a need to simplify and look into this matter more carefully.

Other members on the floor noted that tourism is just as much a market tool and an economic asset as hunting. Thinking should not be restricted to hunting. There are other forms of earning revenues. There are many conservationists who want to come to Tanzania. Public relations should be directed towards this group as well.

As wildlife becomes more and more scarce, then villages will have a better negotiating position. But, from the point of view of the private sector, if they invest in a village, what guarantees will the private sector have that the conditions of the contract are abided by and not sold out from under them? If we have more people chasing around fewer resources, this situation will surely arise. The Director of Wildlife noted that we have binding clauses in our contracts to ensure that investors are protected. As for whether or not people want to make investments, and how much they wish to invest, that is a matter for the private sector.

AFTERWORD

WHAT IS A WMA AND COMMUNITY-BASED CONSERVATION, AND HOW SHOULD THEY BE DEFINED?

N. Leader-Williams

Planning and Assessment for Wildlife Management, PO Box 63150, Dar es Salaam, Tanzania

1. INTRODUCTION

Discussion at the workshop showed the need for clear definitions of the two terms of Wildlife Management Area (WMA) and Community-based Conservation in the context of Tanzania. This afterword addresses this need.

2. WILDLIFE MANAGEMENT AREAS

Before the workshop, two proposed definitions existed for a WMA, as follows:

2.1. THE 1990 DRAFT POLICY PAPER ON WILDLIFE CONSERVATION AND UTILISATION

Wildlife Management Areas (will be created) in place of GCAs where the private sector will be encouraged to set up joint ventures with village communities to utilise wildlife. Furthermore, those village communities and landowners (will be allowed) to manage their wildlife and to retain all benefits from such utilisation schemes. In return, the owner or lessee of the land will have to abide by certain regulations governing the development of agriculture and livestock.

The implication here is that a WMA will completely replace the land areas of present GCAs (or those GCAs still with wildlife). Furthermore, this presumably includes areas of those GCAs where there are land uses other than wildlife, for example agriculture and livestock.

2.2. RECOMMENDED BYE-LAWS FOR WMAS PRODUCED BY THE SELOUS CONSERVATION PROGRAMME

Wildlife Management Area means an area leased, entrusted or owned by an Authorised Association, exclusively set aside for conservation and sustainable utilisation of wildlife; and,

Authorised Association means and includes villages, individual groups, designated organisations, but does not include co-operative societies.

The implication here is that a WMA should be an area exclusively for wildlife. When taken with the definition of an authorised association, the further implication is that the land area of a WMA can vary. It could be contained within one village boundary or include larger areas that groups of villages may wish to manage.

2.3. DISCUSSIONS AT THE COMMUNITY-BASED CONSERVATION WORKSHOP

Three working groups defined WMAs and one group made reference to WMAs that gives clues to the way it was thinking:

2.3.1. Group 1:

Land use planning has an important role in avoiding conflicts. Planning agricultural activities well in advance within WMAs will help ensure that cultivation is placed in areas that avoid conflicts.

The implication here is that non-wildlife land would be included in WMAs, and the group was thinking along the lines of the draft policy of 1991. Furthermore the group gave a clear recommendation to eliminate GCAs as a category of protected area.

2.3.2. Group 2:

WMAs are areas which are not a National Park, Game Reserve, Forest Reserve or the NCA and which are legally set aside by the community for their sustainable management of natural resources. WMAs should not be gazetted protected areas. Rather they will be community land governed by local bye-

laws giving exclusive use rights to villagers owning the land. WMAs should be managed by the local community, as opposed to Central Government.

The implication here is that the group was thinking of large areas of land, perhaps the size of GCAs, through their reference to the more strictly protected areas of NP, GR, FR and NCA. There is a clear mandate from this group that WMAs should not be gazetted as protected areas, although nothing is said about the fate of GCAs.

2.3.3. Group 3:

A WMA is defined as an area of communal land either in a GCA or an open area, in which there are wildlife and people, who have use rights over the wildlife, which they have to manage in a responsible fashion. The size of the area can vary depending on the wildlife dispersal area, animal densities and could incorporate more than one village. The Department of Wildlife, and others where appropriate, for instance TANAPA and NCAA, will work in partnership with these WMAs to ensure proper and sustainable utilisation, both consumptive and non-consumptive through the provision of technical assistance at the village and WMA management levels. Should members of WMAs act in an irresponsible manner, then this right of use can be withdrawn by the Department of Wildlife.

The recommendation here is that these areas can vary in size, from single villages upwards, that land should be wildlife land only and that they could be within a GCA or an open area. An implication of the wording here could be that GCAs would not be eliminated as a category of protected area.

2.3.4. Group 6:

WMAs should include open areas and GCAs. The Government must define clearly who owns the land and who owns the resources before WMAs can become effective. WMAs should act as a bridge between the local community and the wildlife resource. It is suggested that WMAs should be called Community Wildlife Management Areas, and that a suitable Swahili title should be developed.

This group appears to be recommending that WMAs should replace GCAs and OAs, and be for a larger community than one village, but the definition is somewhat unclear.

2.4. RESOLVING THE DIFFERENT POSSIBILITIES

2.4.1. Possibilities and questions: The above offer very varied possibilities for the definition of a WMA (and for the future of GCAs as protected areas). It is necessary to resolve this issue in order to move forward with a national policy. The major questions appear as follows:

- Should a WMA include only land that is devoted solely to wildlife? Equally, should a WMA be a primarily-wildlife (or natural resources) area where other activities such as agriculture and livestock keeping are governed by a land-use plan?
- Should a WMA replace presently viable GCAs and OAs or should a WMA be defined flexibly to allow for any size area to be included as a WMA?
- Should the category of PA known as GCA be eliminated or retained? An important point here relates to the overlap that occurs between GCAs and FRs in many areas, particularly in western Tanzania. In this situation, the Forest Ordinance does not permit any kind of permanent settlement or development. Therefore, by definition, those parts of GCAs overlapping with FRs could not be converted to WMAs (in the sense of not being communally owned and managed land). With a recommendation to eliminate GCAs, those areas of FR overlapping with GCA would lose any form of wildlife status, unless they were upgraded into overlapping FRs/GRs. This in turn would be unlikely to be acceptable to the Forestry Division as the FRs in western Tanzania are mostly productive. Hence, the joint gazettelement as a FR/GR gives joint control on timber harvesting to the Director of Wildlife (Section 9 of the Wildlife Conservation Act).

2.4.2. An attempt at resolving these issues: In attempting to resolve these various issues, the following points appear most relevant to the situation in Tanzania:

- the designation of areas where people live and have a right to own land as protected areas is no longer appropriate. (The possible exceptions are NCA, and other future Conservation Areas).

Therefore it is recommended that WMAs should not be protected areas. Accordingly, neither can WMAs (as non-protected areas) be within protected areas, as GCAs are presently designated. Accordingly, the concept of GCAs outside NPs, GRs, FRs and NCA should be phased out;

- that WMAs (or NRMAs) should relate to more than the area of land where wildlife (or natural resources) are to be managed. Hence, activities compatible with wildlife (or natural resources) conservation, and any incompatible forms of activity, would be carried out in accordance with a land use plan. Furthermore, this would recognise that the primary form of land use in the area is wildlife (and natural resources) management. Within the area of such a WMA (or NRMA), there can be exclusive zones for the management of wildlife (and other natural resources), as defined in a land-use plan and the use of which can be regulated by bye-laws.

2.5. RECOMMENDED DEFINITION FOR WMA

Based on the above, it is suggested that the following should serve as a definition of a WMA (or a NRMA) for the national policy:

An area of communal land in which people have use rights over the wildlife and natural resources, which they wish to manage in a responsible fashion as the primary form of land use and from which they are allowed to retain a significant proportion of revenue. The size of each area will take into account its ecology, wildlife densities and other natural resources, the proposed form of land use for the area, and the cohesiveness of the community. Each area will have legal administrative boundaries and can include one or more villages. The area must be leased, entrusted or owned through customary or titled systems of land tenure by villagers who form an Authorised Association. All forms of land use will be governed by a land-use plan made in consultation with rural communities. Within each area, there will be exclusive zones for the management of wildlife and other natural resources, as defined in a land-use plan and the use of which can be regulated by bye-laws.

2.6. THE FUTURE OF GCAs

In terms of the future of GCAs as a category of PA, the following appears appropriate:

The category of protected area known as GCAs will no longer be retained on areas of communal land.

This statement, however, still leaves open the **difficulties for overlapping FRs/GCAs**. The following would seem to be the **options**:

- **to abandon the GCA designation there also, but attempt to upgrade biologically important areas of overlap to GR, given that both FRs and GRs should by law be unsettled.** This option would be consistent in abandoning the GCA category throughout Tanzania. However, it may lead the Forestry Division to question how the wildlife sector can allocate tourist hunting blocks on the remaining land that does not get upgraded to GRs. In turn, the Forestry Division would then rightly consider such land only to be "theirs" to manage;
- **to retain the GCA designation only for areas of overlap on state owned FRs.** This option would still permit these areas to have some form of designation as wildlife areas, and for the Wildlife Department to offer tourist hunting blocks in overlapping GCAs/FRs with fewer possible questions;
- **to propose creating a new name for overlapping FRs and GCAs to indicate multiple uses of timbering, beekeeping and tourist hunting that already now occurs in many of these areas in western Tanzania.** This option could unite the various uses in one area, but then it would require different sectors to agree to the approach, which may not be realistic at this time.

All of these options have their merits and disadvantages, and clearly there is a lot of room for confusion and sectoral rivalries. However, it appears important that this issue is resolved by both forestry and wildlife sectors, but the most appropriate choice would seem to be **to adopt the first option on an interim basis, while working towards the last option.**

3. COMMUNITY-BASED CONSERVATION

Before the workshop, there was no clear definition of community-based conservation in the context of Tanzania. Furthermore, no working group made an attempt at a defining this concept, although one working group defined the term community in the context of Tanzania.

3.1. DISCUSSIONS AT THE COMMUNITY-BASED CONSERVATION WORKSHOP

3.1.1. Group 6:

A Community is a social group or unit of people (represented by "the village") living in or around wildlife rich areas and interacting with those natural resources.

3.2. RECOMMENDED DEFINITION FOR COMMUNITY-BASED CONSERVATION

Many verbal discussions were held at the workshop and a small amount of written output is available. Based on these, the following are suggested as a definition of community-based conservation, and as the operational conditions under which community-based conservation can best be initiated for the national policy:

Definition: *Community-based conservation seeks to involve rural people and communities in taking joint responsibility for the sustainable management of wildlife and other natural resources among or close to which they live, and to share in the direct and indirect benefits of its management. The aim of community-based conservation is, on the one hand, to promote the development of rural communities living among or close to wildlife and, on the other hand, to promote the legal and sustainable use of that wildlife and other natural resources outside unsettled protected areas. The underlying objective of community-based conservation is to demonstrate the positive role that wildlife and its habitats can have in land-use planning and in socio-economic development at local, regional and national levels.*

Operational conditions: *Community-based conservation can operate most effectively when rural people and communities have secure tenure of their land through a registered title or, less preferably, through a customary right, have rights to use wildlife and other natural resources on that land, and have responsibilities relating to the sustainable management of those resources. However, community-based conservation can also include a wide range of activities that build trust between protected area managers and rural communities and that build awareness of the direct and indirect values of wildlife and natural resources. Hence, the lack of secure tenure in many areas of Tanzania will not preclude the initiation of community-based conservation activities that build trust and awareness. Indeed, such activities are often a necessary prelude to initiating fuller and more effective community-based conservation activities such as helping villagers acquire secure title or to realise some benefits from wildlife and natural resources management.*

4. CONCLUSIONS

Both the above definitions have been included in the draft *Policy for Wildlife Conservation and Utilisation* of April 1994 that has been written at the request of the Director of Wildlife. This draft now completely replaces the 1990 Draft *Policy Paper on Wildlife Conservation and Utilisation*.

ACKNOWLEDGMENTS

All the workshop participants are thanked for their participation and help in sharpening up on the need for definition of these two concepts in the Tanzanian context. The verbal presentations made at short notice at the workshop on requirements for a definition of community-based conservation by Professor M.W. Murphree and Dr M.R. Stanley Price helped greatly in the absence of much written material on this topic. PAWM and AWF staff kindly gave written feedback on earlier versions of the draft definitions.

LIST OF ATTENDEES

Guest of Honour:

Hon. Juma Hamad Omar, Minister of Tourism, Natural Resources and Environment

A. Chairman and Co-hosts:

Mr M.A. Ndolanga, Director of Wildlife

Mr L. Melamari, Director General, Tanzania National Parks

Mr P.J. Mshanga, Assistant Conservator, Ngorongoro Conservation Area Authority

B. Internal Resource Persons:

Mr B.N.N. Mbano: Deputy Director, Department of Wildlife

Dr R. Tenga: Faculty of Law, University of Dar es Salaam

Mr H.J. Ndolezi: Principal State Attorney, Department of Wildlife

Mr M.M. Lyimo: Chief Preventive Officer, Department of Wildlife

Mr M.S. ole Parkipuny: Pastoralists Network, Loliondo

Mr A. Songea: Fundi, Songea

Mr J. Nyanchuwa: Fundi, Mara

Ms J.S.C. Sandi: Prime Minister's Office, Dodoma

Mr I. Swai: Project Manager, Moyowosi Game Reserve

Mr H.B. Orondi: Commission of Co-operatives, Dar es Salaam

Mr P. Bergin: Community Conservation Service, Tanzania National Parks

Mr A.R. Kijazi: Senior Planner, Ngorongoro Conservation Area Authority

Mr M.K.S. Maige: Technical Officer, Serengeti Regional Conservation Strategy

Dr H. Krishke: Self-help Specialist, Selous Conservation Project

Mr I.F. Ndunguru: Regional Game Officer, Ruvuma

Mr V. Lyamuya: Regional Natural Resources Officer, Morogoro

Dr D. Hartley: Ruaha Ecological Wildlife Management Project, Iringa

Mr H. Simons, Dutch Community Project, Mkomazi Game Reserve

Ms T. Nicolassen: Dutch Community Project, Mkomazi Game Reserve

Mr A. Hill: Cullman Reward Scheme, Robin Hurt Safaris

Mr T. Peterson: Dorobo Tours and Safaris

Mr M.M. Oloto: Oliver's Camp

C. Resource Persons from outside Tanzania:

Ms G.J. Lusiola: Kenya Wildlife Services, Nairobi

Mr H.K. Mwima: National Parks and Wildlife Services, Zambia

Professor M.W. Murphree: Centre for Applied Social Studies, University of Zimbabwe

Mr G. Owen-Smith: Integrated Rural Development and Nature Conservation, Namibia

Mr A.R. Mugisha: Lake Mburo National Park, Uganda

Mr M. Infield: Lake Mburo National Park, Uganda

Mr E. Barrow: African Wildlife Foundation, Nairobi

Mr M. Bess: African Wildlife Foundation, Nairobi

D. Members of Parliament:

Hon. M.M. Kihale: MP for Ludewa

Hon. P. Marmo: MP for Mbulu

Hon. Lt Lepilall N. Ole-Moloimet: MP for Monduli

Hon. E. Losoiki: MP for Simanjiro

Hon. G. Itatiro: MP for Ulanga/Kilombero

Hon. A. Mwinyimusa: MP for Sumbawanga

Hon. Ole Koilah: MP for Loliondo

Hon. Dr D. Mwita: MP for Serengeti

E. Government Departments:

Mr S. Mayeye: Director, Land Use Planning Commission

Mr T.K. Luyangi: Assistant Commissioner, Lands Division

Mr M. Mwanda: Ministry of Community Development
Ms G. Kamuzora: Planning Commission
Mr R. Muheto: National Environment Management Council
Ms E. Kerario: National Environment Management Council
Mr O.M. Karia: Fisheries Division
Mr G. Matiko: Forestry Division
Dr G. Komba: Ministry of Agriculture and Livestock
Mr E. Moyo: Ministry of Agriculture and Livestock

F. Wildlife Authorities:

Mr J.A. Kayera: PAWM
Mrs R.K. Tibanyenda: PAWM
Mr P.K.N. Marenga: PAWM
Mr C. Msanja: PAWM
Ms J. Abdallah: PAWM
Ms N. Mwina: PAWM
Dr N. Leader-Williams: PAWM
Dr R.H. Lamprey: PAWM
Mr G. Overton: PAWM
Mr W.J. Mapunda: Project Director, Serengeti Regional Conservation Strategy
Mr L.A. Hassan: Serengeti Wildlife Research Institute
Mr G.T. Moshia: Research Training and Extension, Wildlife Department
Mr S.A. Kaihula: Research Training and Extension, Wildlife Department
Ms M. Zacharia: Licensing Section, Wildlife Department
Mr E. Tarimo: Projects Co-ordinator, Wildlife Department
Mr G. Bigurube: Project Manager, Selous Game Reserve
Mr S.D. Kihale: Project Manager, Maswa Game Reserve
Mr B.M.C. Midala: Regional Game Officer, Mara
Mr S.L. Munisi: Regional Game Officer, Mbeya
Mr C.M.K. Malima: Regional Game Officer, Tabora
Mr R.M. Salehe: Regional Game Officer, Lindi
Mr L.M. Ole Moirana: Chief Park Warden, Ruaha National Park
Mr M. Lobooki: Extension Warden, Serengeti National Park
Ms C.M. Esupu: Serengeti Regional Conservation Strategy
Mr L. Shao: Serengeti Regional Conservation Strategy
Mr G. Ngwenya: Hunting Manager, TAWICO

Other organisations:

Ms Diana McMeekin: African Wildlife Foundation, Washington
Dr M.R. Stanley Price: African Wildlife Foundation, Nairobi
Mr John Boshe: WWF Country Representative for Tanzania
Dr J. Kessy: WWF Country Office for Tanzania
Mr P. Morris: USAID, Dar es Salaam
Mr W. Baynit: USAID, Dar es Salaam
Mr J. Madaha: Tabora Beekeepers Cooperative Society, Tabora
Mr L.M. Ole Kosyando: ADDO, Arusha
Mr M. Tumbo: Local leader, Serengeti
Mr B. Connors: Cullman Scheme Project Co-ordinator
Dr R. Tillman: World Bank Washington
Mr S. Evans: Abercrombie and Kent, Arusha
Ms K. Ellis: George Adamson Trust
Ms A.M. Holmes: Peace Corps, Dar es Salaam

Occasional Papers of the IUCN Species Survival Commission

1. *Species Conservation Priorities in the Tropical Forests of Southeast Asia*. Edited by R.A. Mittermeier and W.R. Constant, 1985, 58pp. (Out of print)
2. *Priorités en matière de conservation des espèces à Madagascar*. Edited by R.A. Mittermeier, L.H. Rakotovo, V. Randrianasolo, E.J. Sterling and D. Devitre, 1987, 167pp. (Out of print)
3. *Biology and Conservation of River Dolphins*. Edited by W.F. Perrin, R.K. Brownell, Zhou Kaiya and Liu Jiankang, 1989, 173pp. (Out of print)
4. *Rodents. A World Survey of Species of Conservation Concern*. Edited by W.Z. Lidicker, Jr., 1989, 60pp.
5. *The Conservation Biology of Tortoises*. Edited by I.R. Swingland and M.W. Klemens, 1989, 202pp. (Out of print)
6. *Biodiversity in Sub-Saharan Africa and its Islands: Conservation, Management, and Sustainable Use*. Compiled by Simon N. Stuart and Richard J. Adams, with a contribution from Martin D. Jenkins, 1991, 242pp.
7. *Polar Bears: Proceedings of the Tenth Working Meeting of the IUCN/SSC Polar Bear Specialist Group, 1991*, 107pp.
8. *Conservation Biology of Lycaenidae (Butterflies)*. Edited by T.R. New, 1993, 173pp. (Out of print)
9. *The Conservation Biology of Molluscs: Proceedings of a Symposium held at the 9th International Malacological Congress, Edinburgh, Scotland, 1986*. Edited by Alison Kay. Including a Status Report on Molluscan Diversity, written by Alison Kay, 1995, 81pp.
10. *Polar Bears: Proceedings of the Eleventh Working Meeting of the IUCN/SSC Polar Bear Specialist Group, January 25–28 1993, Copenhagen, Denmark*. Compiled and edited by Oystein Wiig, Erik W. Born and Gerald W. Garner, 1995, 197pp.
11. *African Elephant Database 1995*. M.Y. Said, R.N. Chunge, G.C. Craig, C.R. Thouless, R.F.W. Barnes and H.T. Dublin, 1995, 225pp.
12. *Assessing the Sustainability of Uses of Wild Species: Case Studies and Initial Assessment Procedure*. Edited by Robert and Christine Prescott-Allen, 1996, 135pp.
13. *Técnicas para el Manejo del Guanaco* [Techniques for the Management of the Guanaco], edited by Sylvia Puig, Chair of the South American Camelid Specialist Group, 1995, 231pp.
14. *Tourist Hunting in Tanzania*. Edited by N. Leader-Williams, J. A. Kayera and G. L. Overton, 1996, 138pp.

IUCN Species Survival Commission

The Species Survival Commission (SSC) is one of six volunteer commissions of IUCN – The World Conservation Union, a union of sovereign states, government agencies and non-governmental organizations. IUCN has three basic conservation objectives: to secure the conservation of nature, and especially of biological diversity, as an essential foundation for the future; to ensure that where the earth's natural resources are used this is done in a wise, equitable and sustainable way; and to guide the development of human communities towards ways of life that are both of good quality and in enduring harmony with other components of the biosphere.

The SSC's mission is to conserve biological diversity by developing and executing programs to save, restore and wisely manage species and their habitats. A volunteer network comprised of nearly 7,000 scientists, field researchers, government officials and conservation leaders from 188 countries, the SSC membership is an unmatched source of information about biological diversity and its conservation. As such, SSC members provide technical and scientific counsel for conservation projects throughout the world and serve as resources to governments, international conventions and conservation organizations.

IUCN/SSC also publishes an Action Plan series that assesses the conservation status of species and their habitats, and specifies conservation priorities. The series is one of the world's most authoritative sources of species conservation information available to nature resource managers, conservationists and government officials around the world.

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