COMMUNITY CONSERVATION RESEARCH IN AFRICA

Principles and Comparative Practice

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COMMUNITY CONSERVATION IN PRACTICE: A CASE STUDY OF LAKE MBURO NATIONAL PARK

by

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INTRODUCTION

This paper focuses on the socio-economic effects of community conservation at a specific site. It forms part of a wider study (Hulme 1996) that seeks to answer the question 'does community conservation contribute to the achievement of conservation goals in Africa?' The subsidiary question 'what are the effects of community conservation on resource users?' is of fundamental importance as the 'theory' of community conservation (CC) posits that such a strategy permits conservation activity to contribute to local livelihoods and thus leads to modified resource user attitudes and behaviours that support conservation goals. While other parts of the wider study examine the concept of community conservation (Adams and Hulme, 1998) and policies of CC at the national level (Barrow and Infield, 1997; Barrow et al, 1998) this paper takes an empirical focus on a specific community conservation initiative to assess the achievements of CC, and the processes surrounding it, at a detailed level.

CONSERVATION IN UGANDA

Contemporary conservation policies and practices in Uganda have their roots in the country's colonial history. Although conservation policies and organisations have changed over the years - and significant plans for further changes are being laid (Uganda Wildlife Authority 1997) - a blueprint made in the earlier part of this century retains a powerful influence over state initiatives to conserve habitats, biodiversity and specific species.

There are two main elements to this colonial legacy. The first is a protectionist orientation that conceptualises African natural resource users (particularly farmers, cattle-keepers and hunter-gatherers) as the conservation 'problem' and seeks to achieve conservation goals by keeping resource users off areas that have conservation value (i.e. separating people from the environment). An adjunct to this has been that mobile species must be protected by a virtual blanket ban on the hunting of most wild animals. The second element, deriving from the first, is that Uganda has a patchwork of National Parks, Wildlife Reserves and Forest Reserves (largely gazetted between the 1930s and 1960s) in and around which state conservation activities are almost exclusively concentrated. Some 8 per cent of the country's land area is national park, game reserve or forest reserve and some 27 per cent of the country has some for of legislated 'protection' over its use (Green 1995:2).

At Independence in 1962 Uganda National Parks (UNP) inherited responsibility for managing the national parks and the Game Department took responsibility for game reserves

and for the protection of wildlife outside of protected areas. However, the country's turbulent history between 1971 and 1986 meant that for extended periods state conservation policies and institutions did not function. Since political stability returned in 1986 policies have remained protectionist and UNP and the Game Department retained cultures that are strongly para-military. This protectionist stance has not stopped individuals in these services from involvement in illegal wildlife utilisation (e.g. poaching) as state capacity to monitor its agencies and ensure accountability has remained imperfect.¹

However, ideas about shifting conservation policy from a state-based focus to a more society-based focus have been increasingly heard over the last decade. Many of these ideas have been introduced to the country by international bodies (Barrow and Infield, 1997). Lake Mburo National Park (LMNP) broke new ground in 1991 when it became the first park in Uganda to employ designated community conservation officers. Subsequently, community conservation officers have been employed at 19 of the 21 protected areas managed by UWA² (UWA establishment records, January 1997) and a Community Conservation Coordinator has been appointed at headquarters. Park Management Advisory Committees (PMACs), comprised of members elected from the parishes that directly border national parks, have been established as a formal channel for park-community interactions around all of the major parks; and, since January 1995, a policy of 'revenue-sharing' with communities has been in operation (i.e. a share of each park's income is earmarked for allocation to community projects in neighbouring areas) alongside a policy of resource access for park 'neighbours', where appropriate.

Despite these significant policy changes and practical actions the Uganda Wildlife Authority retains a protectionist culture (Kazoora and Victurine, 1997:13) and ideas about a more proactive approach to the communities that neighbour protected areas have only recently begun to filter through to the majority of rangers and wardens. As one senior UWA official put it, '...community conservation is like a bitter pill being pushed down our throat'. In the field community conservation has been treated as a new and additional activity, rather than something that has profound implications for the law enforcement work that is the central feature of Ugandan conservation practice. The current ambivalence of UWA to community

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This is not intended as a criticism of the state, as Uganda has re-established the rule of law and public accountability at a quite exceptional rate since 1986.

conservation is underlined by UWA opting to discourage PMACs from federating as it was felt that this might unduly strengthen the 'communities' bargaining position on issues of revenue sharing and wildlife utilisation. In the field UWA staff may now recognise that local residents are neighbours, but they certainly do not see them as partners. This situation may be changing, however, as the country's return to democracy may take debate about conservation away from its present elite arena (ministers, conservation bureaucrats and international agencies) into the local council (LC) structures as voters ask their MPs and representatives 'what' protected areas are for.

The merger of UNP and the Game Department and other structural reforms are intended to strengthen conservation practice in Uganda. At present UWA's capacities remain limited, however. Budgets are meagre, staff incentives limited, information is lacking and leadership is struggling to relaunch the organisation. Much UWA policy remains on paper: implementation capacity is low.

LAKE MBURO NATIONAL PARK: HISTORY AND CONTEXT³

Lake Mburo National Park (LMNP) lies in Mbarara District in South central Uganda close to the borders with Tanzania and Rwanda. It has a total area of 260 square kilometres comprised of open and wooded savanna, seasonal and permanent wetlands (around 50 square kilometres) and five lakes, of which Lake Mburo is by far the largest (Map 1). The main reasons for its protected status are: the richness of its fauna; the fact that most intralacustrine habitats of this nature have already been modified; it is the only place in Uganda where impala are found; and it is believed to have value for tourism, recreation and scientific research.

Around the turn of the century the area was occupied by Runyankole speaking people with the pastoralist Bahima being the largest group and smaller numbers of Beiru and Bakooki cultivators and fisherman. The Bahima were semi-nomadic and pursued an opportunistic grazing strategy shifting their herds both locally and regionally depending on rainfall patterns, pasture quality, disease and cattle numbers. Records indicate that wild animals were plentiful following devastating rinderpest and smallpox epidemics in the 1890s that reduced

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The Uganda Wildlife Authority (UWA) took over the responsibilities of Uganda National Parks (UNP) in 1996 following a restructuring exercise which merged UNP with the Game Department.

human and cattle numbers. Hunting was only on a limited scale as the Bahima majority did not traditionally eat game. Large herds of elephant (around 1,000 animals during a season) regularly crossed the area on migration and large carnivores were resident.

Substantial parts of the rangeland in this area were partially reserved for the herds of the Ankole King and members of the royal clan. In the 1930s members of this traditional elite became concerned at the increasing use of their pastures for hunting.

MAP 1

The information in this section has been gathered from Bataamba (1994), Kamugisha and Stahl (1993), Snelson and Wilson (1994) and field research.

Discussions with the colonial authorities led to the declaration of a large controlled hunting area (CHA) in the Ankole rangelands which allowed grazing and cultivation but regulated all hunting activities.

In the 1940s it is reported that the area suffered depopulation as bush encroachment led to tsetse fly invasion. Both human and cattle populations suffered disease at epidemic levels and moved away from the region. Game numbers expanded and, despite its CHA status, the area became popular with hunters. In the 1950s and 1960s the colonial authorities commenced a tsetse fly eradication campaign which involved the clearance of bush (by mechanical means), large scale insecticide spraying and the shooting out of wild animals in the affected area. These activities opened up the savanna and dramatically reduced game numbers. They were followed by the gazetting of CHAs at Lake Mburo and the neighbouring areas of Masha and Kikagatu. In theory, CHAs sought to involve local residents in wildlife management and a number of Ankole Honorary Game Wardens were appointed.

As the colonial era drew to a close it witnessed a flurry of state initiatives to promote development. In Southern Uganda this involved the drawing up of ambitious blueprints for land development and zoning. The Lake Mburo CHA was converted into the 650 square kilometre Lake Mburo Game Reserve (LMGR). The 241 families judged to be 'resident' in LMGR were issued with permits allowing them to remain in the area and to cultivate around their homesteads. A large area to the North and East of the LMGR was zoned for the Ankole Ranching Scheme to convert land use from subsistence pastoralism into commercial cattle ranching. This led to the displacement of pastoralists many of whom moved their cattle back to other traditional grazing areas in LMGR. Despite government efforts population in the Game Reserve continued to increase and during fieldwork many local residents reported that the 'bush' was cleared, from the areas they now occupy, during the 1960s.

During the turbulent years of Idi Amin and civil war (1971-1986) conservation took a back seat across Uganda and at LMGR as local residents and government officials focused on survival. The Amin regime excised 10 large private ranches and the Nshara Dairy Breeding Ranch (8000ha) from the reserce. People moved in and out of LMGR depending on the ebb

and flow of the conflicts and opportunities for gaining a livelihood. By the time that Obote returned to power in 1980 the LMGR had extensive banana plantations, large numbers of cattle and huts and fishing villages on most lakes. The Obote regime re-gazetted the Game Reserve to Lake Mburo National Park in 1983⁵. This new status meant that only the 260 'licensed households' could remain resident and a large number of 'squatters' were summarily evicted.⁶ During fieldwork many respondents described the appalling treatment they experienced with huts set on fire, cattle chased into the bush, physical abuse and reports of killings. This has left a legacy of resentment of LMNP, park staff and wildlife that has dogged subsequent conservation efforts.

In 1985 and 1986, as Museveni's National Resistance Movement (NRM) pushed forward to depose Obote, people were directed to 'return to their land' and large numbers moved into LMNP. The NRM recognised the clearance of the Lake Mburo Game Reserve as an injustice that its political agenda would resolve. Some of these settlers were families evicted in 1983 while others simply moved into what appeared to be vacant land. As Museveni triumphed the Park's residents began to slaughter wildlife in an attempt to eliminate the area's conservation value. They invited hunters from outside of the area in, to help shoot the animals out. Respondents who now live on the Park's edge reported that they thought the government would want to reserve land for wild animals and they believed that if they killed all the game the government would be forced to let the land be used for farming and grazing. In effect, the community's strategy at this time was not to conserve nor to utilise wildlife - it was to exterminate it (or as some respondents said, 'to get our revenge on the wild animals') and to convert the entire area into crop and cattle raising.

The NRM responded to this situation with great speed, especially when the scale of national political and economic problems it faced is considered and against a background of promises made to local people. President Museveni, himself is said to have taken personal action in resolving the problem of conflict over the future of LMNP and to have turned negotiations from a focus on park closure to how much must be 'returned' to 'the people'. Some 60 per

The colonial authorities were blissfully unaware of the fact that 'resident' has different connotations in different cultural contexts.

Although conversion from a game reserve to a national park had long been discussed, this decision was not because of the regime's commitment to conservation but was politically motivated because of the Banyankole's support for the anti-Obote resistance movement and in-fighting within the Obote regime.

AWF (1990:3) record that '363 families' were evicted, but many informants say that the population that was removed was much larger than the 1500 to 2000 people this would suggest.

cent of the existing park area was degazetted, following the report of a taskforce, and allocated to local residents, former owners (often people with political connections), and families resettled from the Luwero Triangle on to the Kanyayeru Resettlement Scheme.⁷ The staff of LMNP were left with the task of securing control of the downsized park and starting to manage it again. At the time this seemed an almost impossible task as: (i) the new boundary was not marked and so boundary disputes were frequent; (ii) the local population despised the park and UNP staff; (iii) between 450 and 500 households remained resident in the park and were growing crops, fishing and grazing cattle⁸; and, (iv) the local population was very heterogeneous in ethnic, cultural and economic terms so that 'common ground' was hard to find in negotiations.

The Park staff set about stopping hunting, discouraging the clearance of new lands for agriculture, reducing cattle numbers and stopping the in-migration of new people. They also consolidated the many fishing hamlets around Lake Mburo into a single settlement at Rwonyo. The national level Ranch Restructuring Board (RRB) was delegated to find land on which the people who lived within the park boundaries could be resettled. Progress was slow and respondents reported that at park staff-community meetings both 'sides' regularly turned up with firearms. A number of international organisations sought to assist UNP at LMNP. In 1990 the Swedish International Development Agency (SIDA) agreed to provide financial support for UNP to work with the African Wildlife Foundation (AWF). This was to provide general support to LMNP (renovate facilities, prepare materials for visitors, improve infrastructure), conduct socio-economic research to inform future plans and to introduce a community conservation approach into the park's strategy. The SIDA-financed work (the Lake Mburo Community Conservation Project, LMCCP) began in early 1991 and ran through to late 1994 when it was taken over and extended by the United States Agency for International Development (USAID) through support to the Community Conservation for UWA Project (CCUWAP). These activities are described in more detail, and subsequently analysed, in the following sections.

The processes of degazettment and allocation were far from transparent. There is evidence of politically powerful individuals and groups competing in complex 'land grabbing' contests at this time alongside the more legitimate claims of families who had been evicted.

While the majority were technically 'squatters' the occupants of 3 parcels of land within the park had legal titles that had been granted back in the 1930s!

Over the early 1990s park-people relations improved and in May 1995 the last of the

'squatters' moved out of the Park after being provided with compensation. Many of these

households were also allocated land on the 'ranches' near LMNP, but a minority received no

land because of RRB inadequacies. Improved relations have made the implementation of the

1994 Management Plan (Bataamba, 1994) much easier. The plan specifies the overall

objective of the Park as:

to preserve and develop the values of LMNP by conserving biodiversity,

maintaining ecological processes, promoting the sustainable use of its

resources, and safeguarding Uganda's aesthetic and cultural needs for present

and future generations (ibid:23).

Three specific objectives underpin this overall goal, biodiversity conservation, sustainable

development and maintenance of ecological processes (Table 1).

Table 1 **Specific Objectives of LMNP**

1. Biodiversity conservation: to ensure the preservation of all species within LMNP,

especially endemics and those for which LMNP is an important or the only sanctuary.

2. Sustainable development: to promote the sustainable use of LMNP's resources to

safeguard Uganda's aesthetic, cultural and development needs.

3. Maintenance of ecological processes: to maintain the ecological processes on which the

Park's biodiversity depends and which provide ecological services to surrounding

communities.

Source: Bataamba (1994:23)

The Management plan has helped to win external assistance for the Park and a second phase

of the CCUWAP, to support LMNP, has been provided by USAID. Despite such support and

the achievements of the 1990s, LMNP's future is far from secure. It faces severe financial

and land use challenges. Like most park's in Uganda it operates on a crude self-financing

basis. Total income for the Park in 1996 was around Ug. Sh. 102,945,000 (US\$97,580) out

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of which all salaries, road maintenance, revenue sharing and most transport costs must be met: it is run on a shoestring!

Table 2 Visitor Numbers at Lake Mburo National			
Park 1986-1996			
Year	Total Number of Visitors ¹		
1986	194		
1987	1,375		
1988	3,054		
1989	2,217		
1990	1,213		
1991	1,543		
1992	2,501		
1993	3,687		
1994	3,962		
1995	5,137		
1996	8,365		

1. This includes all visitors, both fee-paying and no charge.

Source: LMNP records.

Although visitor numbers have increased significantly in recent years (Table 2) the main growth has been in 'no fee' or 'low fee' visitors (Table 3). The lack of charismatic species in the Park makes it difficult for LMNP to expand into the lucrative foreign tourist market. But for some of the hidden subsidies from aid projects that leak into routine operations the financial viability of the Park's operations is doubtful. The broader social and economic context also presents a threat to LMNP. In-migration to Mbarara District means that its population is growing faster than the national average of 2.8 per cent per annum (UNDP, 1994). The District's agricultural frontier is being rapidly pushed forward for subsistence production, for pasture to meet the opportunities created by the dairy industry that has established in Mbarara and for cash crop production, especially of bananas (Mbarara is now a major producer of *matoke* for Kampala). LMNP contains an agricultural resource base that is

presently lost to both the local population and the national economy. Pressures to realise the area's agricultural potential - both by legal and illegal means - are already intense and can only increase in the future.

Table 3 Visitor Numbers and Fee Rates at Lake Mburo Park 1996				
Visitor Category	Total Visitor Numbers	Daily Fee Rate		
	(1996)	(Ug Sh) ¹		
1. Foreign Non-resident	1,079	10,000		
2. Foreign Resident	1,804	10,000		
3. Citizen Resident	2,745	2,000		
4. Citizen (Local Resident)	645	1,000		
5. VIPs	63	0		
6. Students	2,029	0		
TOTAL	8,365	-		

1. In January 1997 US\$1 = 1,050 Ugandan shillings.

Source: LMNP records.

COMMUNITIES AND STAKEHOLDERS AT LMNP

The introduction of a community conservation approach at LMNP has required that UWA define the Park's 'community'. Defining such a community is not merely a technical task as it also has important political dimensions. Different actors will support different definitions of 'community' to achieve their particular objectives. There are an enormous set of stakeholders in LMNP (Table 4) ranging from the staff employed by UWA at the Park to groups thousands of miles away who may never have visited Africa but who wish to see LMNP's biodiversity conserved. The vagueness of the term 'community' (Shore, 1993:98-9) means it could be applied at a variety levels: from a very local level (people who live in LMNP) to a global level (the global conservation community).

Table 4 Stakeholders ¹ in Lake Mburo National Park, Uganda		
PRIMARY STAKEHOLDERS		
Resource-users Cultivators		

	D . P .
	Pastoralists
	Mixed-activity residents
	Fisherfolk - labourers and lessees
	Ranchers
	Poachers
	SCIP and revenue-sharing beneficiaries
	Bar & Restaurant Owners
UWA	Warden in charge
	Warden CC,Law Enforcement and Education
	Rangers CC, Law Enforcement and Education
Other Government Agencies	Agricultural Dept.
	Fisheries Dept.
	Lands
	Resettlement Scheme Management
	Military
	Education Dept (esp. teachers)
PMAC & PRMC	Members
Tourists and visitors	Ugandan
	Foreign
Business people	Tour Operators
Business people	Lodge owners/concessionaires
NGOs	AWF
Aid Agencies	SIDA
The rigonoles	USAID
	GTZ
	UNHCR
	orner
Consultants/researchers	
Consultants/Tescareners	
SEC	ONDARY STAKEHOLDERS
UWA	UWA HQ
OWA	Wildlife Dept. (Mbarara District)
Other Government	District Administration
Other Government	Lands Dept.
	Local Councils (1, 3 & 5)
	Forestry Dept. RRB
NCO-	
NGOs	ACORD
Others	Traders
	Transporters
	Ugandan taxpayers
	Other Aid Donors
	MPs
	Minister of Wildlife & Tourism
	Wildlife Clubs of Uganda
	Ugandan Conservationists
	Other Conservationists
External Community (non	
dispersal & non bordering areas)	

1. Stakeholders are persons, groups or organisations with interests in a specific organisation, project, programme or policy. Primary stakeholders are those who directly benefit or suffer from the specific organisation, project, programme or policy. Secondly, stakeholders are those who indirectly benefit or suffer from the specific organisation, project, programme or policy.

Given the limited resources UWA has available at LMNP the operational definition has focused on those local people who are directly effected by LMNP or whose activities directly impact on the Park.

Conceptually there are four main ways in which this 'community' might be specified - resource use, ecology, biology or territory⁹. Each of these methods has different strengths and weaknesses and LMNP has opted for a territorial definition. This has the great advantage of being easy to operationalize as it is based upon pre-existing administrative boundaries that are reasonably well known. However, it has the disadvantage of categorising some people who have little or no interaction or interest in LMNP as community members while others, who can have a substantial impact on the Park's conservation goals, are not treated as part of 'the community'.

The original CC project specified the community as those people living in parishes that directly border the Park, and it is this definition that the Park Management Advisory Committee (PMAC) has adopted.

- "(i) The people or a group of individuals, regardless of age, sex, ethnicity, creed or otherwise who are the true residents within the parishes sharing a common boundary with the National Park;
- (ii) The people or a group of individuals, regardless of age, sex, ethnicity, creed or otherwise who are the true residents within certain areas as shall from time to time be decided by the PMAC."

(Source: LMNP records, 'Terms of Reference of the LMNP Park Management Advisory Committee').

Two points must be noted. First, the interpretation of the notion of 'true residents' is very important. To date this has been taken to mean people with a legitimate right (legal or traditional) to reside in the area. Secondly, item (ii) provides the PMAC with a catchall category by which it has discretion to define anyone as being part of the Park's community. Park staff advised that this clause was included to allow for the future expansion of 'the community' from a territorial definition to a biological definition i.e. to include those who

who live within LMNP and the dispersal area of the key species. Finally, a territorial model would define the community in terms of proximity to LMNP. The criteria that could be used for 'territory' are many, but the commonest is to adopt existing administrative boundaries.

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The resource-user model would define all those who use resources within LMNP as the 'community'. The ecological model would define the ecosystem within which LMNP is located, perhaps on the basis of a watershed, and the population that lives within that area would be the 'community'. A biological model would focus on a key species or set of species (e.g. impala) and identify the community as all who live within LMNP and the dispersal area of the key species. Finally, a territorial model would

live in the dispersal area. To date, however, residence in a neighbouring parish has remained the sole criterion.

Some 13 parishes¹⁰ border the Park and the census recorded their population as 71,240 in 1991. Assuming that the census was correct, then LMNP's 'community' in 1997 probably exceeds 80,000¹¹. This is a crude estimate as the population around LMNP is very mobile with substantial in-migration occurring but also some out-migration.

Only a brief description of LMNP's 'community' can be provided here, as this group is very heterogenous in ethnic, cultural, economic and social terms and a full account would need to be very lengthy (see Marquardt, Infield and Namara, 1994 for more information). The majority of the population are Banyankole with something like 43 per cent of members being Beiru and a little under 30 per cent being Bahima (Table 5). In the past the Beiru have based their livelihoods on the cultivation of bananas, millet, maize and other crops while the Bahima are pastoralists living largely off milk products and food bartered for with milk or cattle. As cattle-keepers the Bahima 'traditionally' had superior social status to the Beiru. A little over 10 per cent of the community are Baganda who are cultivators and also fish in Lakes Mburo and Kachera and the smaller lakes. The Bakiga, originally from South West Uganda, are around 8 to 9 per cent of local residents. The Banyarwanda are around 7 per cent of the population. Some are officially Ugandan citizens. Others, probably the majority, came to Uganda in the 1960s and have been assimilated into the country as cattle keepers, mixed farmers and business people. A smaller number are refugees displaced from Rwanda in the 1990s.

Table 5	Ethnic Composition of the Parishes Adjoining LMNP, Uganda		
			LMNP
		1991 Census	Socio-economic
		(%)	Survey (%)

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By late 1997 this was 15 parishes as two parishes had been subdivided. While this changed the number of parishes, and meant that two parishes had no direct boundary with the Park, the geographical area covered remained identical.

If one assumes that two-thirds of the 6 per cent of the 1991 population that was of Rwandan origin has returned to Rwanda (with its offspring) and that the remaining population has grown at the national average of 2.8 per cent per annum, then the population of the 13 parishes would reach 80,715 in 1997.

Beiru (Banyankole Cultivator)	45	43
Bahima (Banyankole Pastoralist)	23	29
Baganda	14	11*
Bakiga	8	9
Banyarwanda	7	8
Other	3	-

^{*} Includes 'other' groups.

Source: Marquardt et al (1994).

While there is still a broad association between the ethnic group that people identify themselves with and their economic activities the boundaries between groups are increasingly fuzzy in contemporary Uganda. While a few virtually 'pure Bahima' were encountered in fieldwork the livelihoods of most households are now multiplex and dynamic. Many families are practising both cultivation and cattle-keeping and detailed discussions with a small number of families revealed that winning a livelihood requires a portfolio strategy. Within a single year some households are cultivating crops for subsistence and sale, raising animals, producing charcoal, conducting general trade, labouring, hunting and fishing. Government schemes are encouraging Bahima to diversify into cultivation while many cultivators have taken on cattle to sell milk to the recently established creameries. Interpretations of 'tradition' are thus a highly imperfect means for identifying contemporary livelihoods.

Three further points should be noted in this section. First, LMNP's community - like many people in rural Africa - are 'on the move'. The Park's neighbours cannot be conceived of as fixed households that plan to permanently reside in the area. Many households have members who sometimes live close to LMNP but at other times work in faraway areas. There is also an active land market around the Park so that many people are buying their rights to be part of the 'community' while others are exiting. Secondly, despite the community's significance to LMNP there are many 'non community' stakeholders who have an interest in the Park. Some of these stakeholders are remote from the Park - MPs, LC members, ministers, businessmen and residents of the dispersal area - but they may have more influence over conservation issues and practices than the Park's immediate neighbours.

Finally, standards of living in the community vary enormously: while some members run four wheel drive vehicles and have large, permanent houses, others are in temporary huts and are unsure about how they will win a living over the next few days. Our research confirmed the findings of Marquardt et al (1994), that villages and hamlets that border directly on the Park tend to be poorer than those some distance away. In part this reflects the relative unattractiveness of the Park boundary: it tends to be distant from roads and service centres and thus those who have economic or social power seek to keep away from it. In part it also reflects the fact that those on the boundary are the most recent in-migrants and have not yet accumulated assets and resources (ibid). In addition, the incidence of crop-raiding by animals is reported to be much higher on the Park boundary and this significantly reduces incomes from and opportunities for cultivation.

COMMUNITY CONSERVATION AT LMNP

This section briefly outlines the recent work of UWA, and international agencies supporting it, to establish a community conservation approach to work at LMNP. By focusing on the recent period it may appear to suggest that residents in the LMNP area had previously taken no interest in conservation: this is not the intention. Recent work across Africa has shown that the pre-colonial natural resource management systems were usually more sustainable, in natural resource and biodiversity terms, than the systems imposed in colonial and post-colonial times (Leach and Mearns 1996).

The idea of introducing a community conservation approach at LMNP was mooted in 1987 and 1988 when international conservation workers visited the site. There were several reasons for making such a proposal. While the general case was made that CC would contribute to the achievement of conservation goals, it was also believed that at LMNP park-people relationships were so negative that urgent action was needed to create positive ones or the Park would be destroyed. As UNP had minimal experience with non-militaristic conservation approaches and had no resources to extend its conservation efforts, international technical assistance and finance were sought. UNP reached agreement in 1990 with the Swedish International Development Agency (SIDA) and the African Wildlife Foundation (AWF) to initiate a CC project. In February 1991 an expatriate technical assistance expert was appointed at LMNP and he was joined by a Ugandan Community Conservation Warden (CCW) in September 1991. The project proposed that a Community Conservation Unit of one warden and 3 Community Extension Rangers (CERs) be created and this complement is

now part of LMNP's establishment (along with a warden in charge, 3 other wardens and 25 other rangers). While the CCW liaises with a headquarters based CC Coordinator, the staff of CCU are under the direct management of the Park's Warden in Charge.

The initial activities of the CCU focused on three issues: (i) the improvement of relationships with the Park's neighbours and other stakeholders (especially government officials and MPs); (ii) involvement in the issue of how to remove 'squatters' from the Park; and (iii) the commissioning of research to find out who the Park's neighbours were, how they made their living and what knowledge and attitudes they had about conservation issues. The first activity entailed a large number of visits to the villages surrounding the Park and preliminary steps in persuading the Park's law enforcement rangers to be less aggressive and combative with local residents. With regard to 'squatters' the CCU strove to demonstrate to the Warden in Charge and UNP HQ that negotiation would be more effective than forced eviction. In particular, CCU helped to develop UNP's relationship with the RRB. The research focused on a set of rapid appraisals followed by a structured survey (Marquardt et al 1994).

As the state of park-people relationships stabilised the CCU moved on to initiatives to demonstrate that LMNP could contribute to enhanced income generation for its neighbours. This involved providing technical assistance and finance, through a Support for Community Initiated Projects (SCIP) fund, to local enterprises - bakeries, bee-keeping, handicrafts, tree nurseries - and encouraging villagers to look for ways of deriving income from Park visitors. To encourage visitors another component of the international assistance began to upgrade Park facilities and improve its marketing.

The CCU was also able to explore ideas about how to establish village level organisations involved in conservation. Initially this focused on the creation of wildlife clubs, as part of a national initiative in this field. However, when it became evident that such clubs were focusing almost exclusively on schools the CCU switched its focus to Parish Resource Management Committees (PRMCs)¹² and a Park Management Advisory Committee (PMAC). These began to function in 1994 and have become an important part of CC activity at LMNP (see later).

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Originally called Local Conservation Committees (LCCs).

By the time that Phase 1 of the LMCCP was drawing to a close in mid-1994¹³ a number of further shifts had occurred as crisis management and resettlement took up less time. The SCIP funds began to focus on providing support for community facilities (basically primary schools and dispensaries) so that park-related benefits were more widely spread across the population, and less likely to finance enterprises that subsequently collapsed. There was also a much greater focus on the sharing of the Park's natural resources with the local community with initiatives in fisheries, papyrus harvesting for mat-making, traditional medicines and cattle access to LMNP water resources during periods of drought. Wildlife utilisation could not be explored, however, as Ugandan law still prohibited the taking of game.

The transition from Phase 1 of the LMCCP to Phase 2 did not run smoothly. For a period of 10 months there was 'no project' and the majority of CC activities were suspended while the CCU staff were absorbed into the larger pool of park management staff. The knowledge that there would be a second phase, however, may have helped the CC approach to persist. Certainly, the park continued to provide minimal support to CC initiatives during this period, and this led to one of the most interesting of the CCU's achievements. This was the discussion and negotiation of the corridor to water for livestock (see later). Although the final signing of the agreement between the community and the park did not take place until Phase 2 had begun, the bulk of the work was carried out during the 'down' period between projects. This indicates that although the CCU had not been fully integrated into the park management structure at the end of Phase 1, an important change in management approach had occurred and exerted an influence on park management.

Phase 2 has continued to build on the initial activities - facilitating benefit sharing, strengthening PRMCs and community level groups, attempting to resolve conflicts over animal raids on crops and keeping the park and the people talking. In addition, a lot of time has been devoted to assisting the PMAC and PRMCs in allocating and managing the funds generated by UNP's 'revenue sharing' policy that started in 1995. These funds - originally 12 per cent of total LMNP income - are transferred to the PMAC which has used them for a series of school building and improvement projects. Interestingly, the geographical focus of CCU activities has shifted between Phase 1 and Phase 2 (Table 6).

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By that time financial support had shifted from SIDA to USAID. The latter agency had development interests in Uganda that meant the project was more closely related to its wider activities than was the case for SIDA.

Table 6 The Relative Intensity of CCU Activity by Parish at LMNP				
Parish	Phase 1 1991-94	Phase 2 1995 onwards		
Nyakhita	4	2		
Kyarubambura	4	3		
Akayanja	0	1		
Rushasha	2	4		
Rwamaranda	1	4		
Nombe	4	2		
Rwerjeru	4	1		
Akaku	1	4		
Kamuli	4	1		
Rwambira	0	3		
Nyamitsindo	4	1		
Rwambarata	4	2		
Kashojura	1	1		

- 4 = Very intensive activity
- 3 =Intensive activity
- 2 = Some activity
- 1 = Little activity
- 0 = No activity

Source: The author's judgements based on interviews with the CC Warden, CC Extension Rangers, CC Technical Assistant and LMNP documents.

During Phase 1 the parishes of Nyakhita, Kyarubambura, Nombe, Rwerjeru, Kamuli, Nyamitsindo and Rwambarata received very intense support from CCU. In Phase 2 the focus has moved on to Rushasha, Rwamaranda, Akaku and Rwambira. In part this relates to the sequencing of 'big' projects - basically each parish gets a turn at having one of its primary schools redeveloped - but also to a recognition of the fact that Phase 1 of the project focused on cultivators and fishermen. Pastoralists were 'neglected' for three main reasons: many were unsure about their claims to land and were unwilling to participate in CCU initiatives; the pastoralists focus on livestock issues was seen as being incompatible with LMNP goals; and some senior LMNP staff, believed the Bahima to be culturally 'stubborn', and thus difficult to work with.

While later sections of this paper review the contribution of CC activity to Park achievements and examine the future prospects, one further point should be noted at this stage. This is that CC at Lake Mburo remains in a relatively fragile state. It is heavily dependent on donor assistance to support its day to day activities (particularly for vehicle costs, fuel, travel

allowances and the shilling for shilling matching of revenue sharing funds)¹⁴. LMNP's and UWA's finances could not at present or in the near future meet these costs. Whether improved management at UWA, increasing amounts of visitor income, and a shift of resources from law enforcement activities to CC activities could provide a secure basis for the future is highly debateable. It is also heavily dependent on the availability and considerable energy of 2 or 3 key actors at Lake Mburo and Kampala. Its relatively weak institutionalisation within UWA means that the departure of any of these key actors could deal a heavy blow to CC efforts at LMNP.

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At present donor funds provide Ug. Sh. 1 to 1.5 million per month (US\$950 to US\$1450) simply for fuel and travel allowances for CCU. This is equivalent to more than 15 per cent of LMNP's total monthly costs.

COMMUNITY CONSERVATION: WHAT ARE THE EFFECTS ON THE COMMUNITY?

The means by which a community conservation approach at LMNP is intended to aid the achievement of Park goals (Table 1) is by influencing local communities in ways that make their natural resource use practices compatible with these goals¹⁵. Underlying the strategy is the idea that negotiation and agreement are more effective means for shaping the behaviour of neighbours than force and legal sanction; and, the belief that park-people interactions can be managed in ways that increase the benefits (and/or reduce the costs) that local people experience because of the Park.

The following section is broken into six parts so that the influence of CC on different aspects of park-people relationships can be explored. While the 6 year operational period of CC at LMNP makes it difficult to assess the ultimate impact of CC on the physical environment, this is a reasonable timescale for judging the initial socio-economic changes arising from CC.

1. Community Attitudes and Park-People Relationships

Assessing changes in the relationships between the Park and the people who live on its borders is difficult for a number of reasons: much of the information is qualitative; different parishes have very different relationships with the Park and its staff; and, even within a parish the relationships and attitudinal changes are different for different individuals depending on their activities and a wide range of personal factors e.g. older people tend to have more negative opinions of the Park than younger people (Marquardt et al, 1994:106). Also, the nature of attitudes and relationships varies markedly depending on recent events. The construction of a primary school under revenue-sharing arrangements (see later) causes a significant upturn in community support for LMNP. Equally, a single aggressive and violent raid on a village by LMNP law enforcement rangers will sour relations for several years. Despite these problems a number of trends in Park-people relationships can be identified.

The most obvious trend is that the high levels of active animosity of local communities towards the Park, its staff and its wildlife have been dramatically reduced over the 1991 to 1996 period. The accounts of key informants, village based focus groups and participatory appraisal methodologies all confirmed the findings of other studies (Metcalfe and

Kamugisha-Ruhambe, 1993; AWF, 1994:13; Kazoora and Victurine, 1997:11). Rangers contrasted the present situation of being greeted by local residents and sometimes offered drinks with that of earlier periods when travel to Sanga was difficult because of stonings and attacks. These improvements do not mean that relationships are always friendly and cooperative - during the course of fieldwork community members displayed suspicion of Park staff and their motives (for one of many possible examples see Box 1) - but that confrontation is now relatively rare.

The nature of the relationship between communities and the Park varied according to the nature of community use of natural resources, location and previous experiences. A key idea, underpinning community attitudes, was whether community - park relations were reciprocal or not. In cases where people perceived the Park was not behaving fairly then relationships were more fractious. Two specific cases can illustrate this.

In a village in Rwamuranda parish mixed farmers complained strongly about the Park on the grounds that wild animals ¹⁶ from it regularly raided their farms, stole and damaged their crops and made it impossible for them to grow maize, sweet potatoes and cassava. However, when the cattle of local residents graze (by accident or intent) in LMNP the cattle are seized, the owners are heavily fined and they claim to be 'harassed' by rangers. Villagers were emphatic that '....it is not fair. If their animals (i.e. the Park) come on our land and do a lot of damage we get no compensation. If our animals stray on to their land we are punished'. By contrast, in a case study village in the parish of Rushasha (to the south of the Park) people reported more favourably on their relationship with LMNP. Indeed, if anything they felt the Park was generous. The swamp that separates this area from the Park leads villagers to believe that the animals that raid their crops are not from LMNP. Equally, it means that their cattle cannot access grazing in the Park. They are pleased with the Primary School that LMNP has recently renovated for them and are negotiating with CCU to get official access to swamps to catch mudfish. When villagers do fish illegally in the small lakes in the Park they are rarely

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It should also be added that CC was seen as a subtle means of influencing LMNP management to modify its approach to relations with the local community.

The most commonly cited pests were bushpigs and baboons. It must be noted that while the Park is a sanctuary for these species they also live outside the Park and are not necessarily 'Park animals'.

BOX 1

THE BWARA FENCE MEETING

On 29 January 1997 the Community Conservation Unit called a meeting with villagers in Kyamani to encourage villagers to plant a <u>bwara</u> fence (<u>Caesalpina decapetala</u> hedge) to protect their farms from wild animal raids. This was a continuation of earlier discussions and followed a CCU organised visit by some Kyamani villagers to see a <u>bwara</u> fence in a nearby village.

The LMNP group was comprised of 11 people (the warden in charge, the CC warden, 3 CC rangers and 6 other rangers). When they arrived at mid-morning for the pre-arranged meeting only one old man was at the meeting place. A message was sent out to nearby huts and gardens for people to come to the meeting, but they did not show much enthusiasm. After about half an hour 5 other men joined the meeting, led by the LC1 (sub-parish) chairman.

The wardens explained the advantages of the <u>bwara</u> fence - fewer animal raids on crops, improved yields, less need to guard crops - and encouraged villagers to plant a hedge, at least as an experiment.

The villagers respond at length, making 3 main points.

- 1. They believed the Park should fence its boundaries to keep its animals in the Park not them have to fence their gardens.
- 2. If a hedge was planted it must be on the Park boundary. They believe that if they plant <u>bwara</u> around their gardens then Park staff will claim that the land between the official boundary and the hedge is now Park land.
- 3. They think that the hedges will take lots of labour to plant and prune.

At times the villagers became heated, telling the LMNP staff that it was the Park's responsibility to manage the wild animals, not the villagers' responsibility. The Park staff remained calm and kept on arguing for the villagers to plant <u>bwara</u>. After 3 hours talking 5 of the 6 villagers reluctantly agreed to plant a hedge. However, their willingness to do this remains to be seen.

Source: Observations by Charles Muchunguzi.

However, the popular perception is that these vermin 'belong' to the government and thus that the government (i.e. the Park) is responsible for them.

'harassed' as access problems mean that neither UWA nor Fisheries Department staff can visit these areas only on an irregular basis.

Marquardt et al (1994, 104) found that households whose primary economic activity is cultivation had a markedly more positive attitude to the Park than mixed farmers and cattle keepers. Location is very important, however, and during fieldwork people in parishes to the North of LMNP, and especially around Sanga, seemed likely to perceive the Park and its staff as not treating them fairly, as the relatively high population densities pushed people to farm and graze cattle directly on the park boundary. To the South the structure of Park-people interactions leads to more favourable perceptions because of the existence of a natural physical barrier.

Wardens and rangers also reported that community attitudes could be seen to have changed because villagers now provide 'tip offs' about poachers. In the late 1980s and early 1990s such assistance would have been inconceivable. The case was cited of the arrest of 25 hunters and the seizure of 49 bicycles, along with large numbers of hunting nets and spears and animal carcasses in January 1997, at a place 60 kilometres north of LMNP (New Vision, 25/1/97:7). Wardens reported that such an action was dependent on detailed information from local informants. However, not all community policing of LMNP and the dispersal area indicate community support to stop poaching. Reports of the killing of a poacher by a Local Defence Committee bordering LMNP might be interpreted as overzealous anti-poaching action by the community. In reality, it seems likely that the LDC members were defending their own rights to poach and discourage 'old enemies' (probably Bakooki from Rakai) from crossing their land.

How much of the general improvements in relationships is attributable to the CCU (and its activities and influences) and how much to other sources (wider changes within LMNP staff, changes in animal numbers, the local economy) is difficult to factor out. It is clear, however, that CCU activities have shifted the interactions between the Park and its neighbours in ways that are viewed as being more reciprocal and thus less likely to lead to antagonism. Revenue-sharing and resource sharing initiatives (see below), spearheaded by CCU, have contributed tangible benefits to communities. Persuading Park management to negotiate for voluntary resettlement by 'squatters', rather than opting for the more usual strategy of eviction by force of arms, stopped the creation of another group of neighbours with a 'history' that means

LMNP is viewed as 'bad' (Marquardt et al, 1994:102). The CCU's prioritisation of dealing with dangerous animals (buffaloes and hippos) outside of the Park has reduced some of the costs imposed on local residents by LMNP (although crop-raiding by pigs and baboons remains unresolved). In addition, the approach of CCU to local communities - meeting, talking, setting up groups and trying to find opportunities for agreement - has begun to shift Park-people communications away from always 'telling' to sometimes 'listening'. The evidence points to CC having made a significant contribution to improvements in Park-people relations as, '...communities enjoy the good neighbour policy and prefer dialogue to force' (Kazoora and Victurine, 1997:19).

2. Community Projects, Income Generation and Revenue-Sharing

Community conservation at LMNP is premised on the assumption that it can only make a long-term contribution to achieving Park objectives if the neighbouring communities receive tangible benefits from LMNP. In many cases, for example Kenya and Zimbabwe, this is done by revenue-sharing (especially of gate receipts) and by assisting communities to set up tourism-related or trophy hunting projects that generate income. At LMNP in 1991 this routine approach was problematic. First, the Park attracted few visitors so there was little revenue to share, and tourist dependent businesses were unlikely to succeed. Secondly, UNP had no policy on revenue-sharing and the topic was only just becoming an issue (as knowledge of Kenya's decision to share revenue filtered across to Uganda).

As a temporary means of overcoming these problems LMCCP Phase 1 had donor finance for Support of Community-Initiated Projects (SCIPs). SCIPs sought to transfer financial resources to communities bordering the Park and promote the development of small enterprises that would raise incomes but not compromise conservation goals. In the early years of community conservation at LMNP the CCU put substantial efforts into these initiatives; assisting women's groups to produce and market handicrafts; developing proposals with community groups for tourist facilities, brick-making, bakeries, farming, bee hives and tree nurseries; assisting in the expansion of a traditional healing business; and, providing training in enterprise. In other cases, and particularly when local residents were given the choice, communities preferred SCIP funding of social projects, particularly the rebuilding or refurbishment of primary schools and sub-dispensaries. These community-level initiatives were backed-up by attempts to increase visitor numbers by expenditures in upgrading Park facilities, producing a guidebook and marketing LMNP.

Overall the SCIP activities produced a wide range of results (Table 7) with incomegenerating projects being particularly problematic. While both income-generating projects and social projects achieved successes (Rwabarata Bee Farm and Rwentango sub-dispensary) and failures (Kakagati Bee Farm and Kyarugaju sub-dispensary) the early years of the SCIP demonstrated that income-generating projects required large amounts of CCU and community effort, raised community expectations but had a high likelihood of not being feasible or collapsing during implementation. Income generating projects faced problems of lack of demand, poor management, leadership disputes and, reportedly, a lack of motivation and commitment. A successful earing production and sale initiative collapsed when members tired of handicraft production. In retrospect, it is perhaps surprising that the planners of LMCCP were so supportive of small enterprise development given the problems encountered by specialist agencies in this field in rural Africa. However, many of these initiatives were assisted as a means of demonstrating that park staff would be responsive to community ideas, even when they were of little direct relevance to conservation eg. LMNP provided training of traditional birth attendants. The 'process' of project identification was seen as being as important to Park-people relations as the actual content of projects.

Since 1995, UNP has operated a revenue-sharing policy. Initially this was that 12 per cent of a park's total revenue should be invested in community projects. Subsequently, this has been amended to 20 per cent of gate fees. At LMNP these funds have been supplemented by donor funds. The 'revenue share' funds are allocated and overseen by the Park Management Advisory Committee (PMAC)¹⁷, although the technical support of CCU remains essential to revenue share projects at village, parish and PMAC levels.

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See part 4 of this section for a detailed discussion of PMAC.

Table 7	Projects Financed by the Support for Community-Initiated Projects (SCIP) Fund and their Achievements			ed Projects (SCIP)
Project	Main Activities	Size of SCIP	% of Active SCIP Committee Members	Status
		Committee		
Rwentango Dispensary	Rebuilding sub-dispensary	9	100	Successful
Birunduma School	Rebuilding primary school	7	100	Successful
Sanga School	Roofing primary school	5	20	Unsuccessful
Karugaju Aid Post	Rebuilding sub-dispensary	5	0	Doubtful
Rwenikinju School	Rebuilding primary school	7	0	Doubtful
Kamuli Traditional Healer	Building facilities for a traditional healer	7	29	Successful (still operating)
Kakagatu Tree Nursery	Raising tree seedlings	35	100	Unsuccessful
Kakagatu Bee Farm	Honey production	n/k	n/k	Unsuccessful
Rwabarata Bee Farm	Honey production	28	100	Doubtful
Joyce's Tree Nursery	Raising tree seedlings	1	100	Successful
Rwabarata Women's Group	Tree nursery, bakery and handicrafts	28	4	Unsuccessful
Rwakukuku Women's Group	Handicrafts	n/k	n/k	Unsuccessful
Paulo's Live Fence	Bwara fence to stop wild animals	2	100	Successful
Godiano's Live Fence	Bwara fence to stop wild animals	1	0	Unsuccessful
Valley tank digging	Well and tank digging	n/k	n/k	Successful
Sanga Road	Maintenance of road	n/k	n/k	Successful

Source: SCIP file at LMNP and reports from CCU. For a recent review see Kazoora and Victurine (1997, 10-12)

The CCU encouraged PMAC to adopt a technical approach to decision-making about fund allocation and provided training for this purpose. Parishes should prepare project proposals; these would be screened by PMAC members on the basis of clearly identified criteria; and, projects receiving the highest scores would be funded. The irrationality of such a 'rational approach' was self-evident to the PMAC. The Committee's key concern has been to ensure 'fair shares' (equity) rather than a mix of efficiency and equity objectives. Its members have opted to fund a small number of 'big' projects each year - almost all of them focused on school roofing or improvement. Projects are sequenced across parishes so that each parish gets an 'equal' share of revenue-share funds over time. The rationale behind this approach is that, (i) it is fair and all parishes get roughly equal allocations over time; (ii) it produces highly visible projects that can be used by many people in a parish; and, (iii) planning is relatively straightforward as only a building plan and costing are required (income generating projects require business plans with an 'income' side). In practice, it means that low population parishes do much better in per capita terms. Table 8 details recent projects. (Unfortunately Park records and PMAC minutes do not provide full details). By 1998 all neighbouring parishes should have received a school upgrade and the school improvement cycle will commence its second round.

The quite different approaches that Park management and parish representatives adopted to project selection reveal the types of negotiation that conservation agencies and communities must engage in, if community conservation is to operate. To its credit, LMNP management deferred to PMAC preferences and has had to accept a project portfolio which has limited direct relevance to Park objectives and in which 'viability' is given little analysis.

While the SCIPs and initial revenue sharing activities have not achieved much in terms of enterprise development and income generation criteria, they have demonstrated to communities that being a Park neighbour has tangible benefits. During fieldwork the most commonly cited positive interaction with the Park was school building and improvement. At Kashenshero in Rwambira Parish fieldwork revealed that community perceptions of the Park had been significantly reassessed because of the building of a primary school. For most respondents this was a 'new' side to Park activities as all previous interactions had been negative: raids on poachers, cattle seizures, boundary disputes and evictions. At an aggregate level the revenue-share school buildings initiatives represent only a minor contribution to the livelihoods of the Park's 80,000 neighbours. However, at the subjective level (public

relations) the initiatives have been very effective in persuading large number of neighbours that the relationship with LMNP does not have to be the way it has been in the past - negative and confrontational.

Table 8	Projects supported by Revenue Sharing at LMNP 1995 and 1996		
Year	Parish	Project	Financial Support (millions of Ugandan shillings)
1996	Rwamaranda	Primary school	3.0
1996	Akaku	Primary school	3.0
1996	Rwambira	Primary school	6.0
1996	Rushsha	Primary school	5.0
1995	Rwenjeru	Primary school	4.4
1995	Nyakahita	Primary school	4.4

Source: Interview with Peter Karoho, Chair of LMNP Park Management Advisory Committee (22/1/97).

3. Resource Sharing

Until the early 1990s national parks in Uganda operated on the principle of resource exclusivity. Natural resources within park boundaries were under the exclusive control of UNP and members of the local community could only view such resources as fee-paying visitors. At LMNP the focus of ranger activity from 1986 to 1991 was to regain exclusivity by negotiating 'squatter' resettlement out of the Park and discouraging newcomers from entering. LMCCP introduced the concept that some park resources could be utilised by local communities in ways that would enhance the long term achievement of conservation goals. In this section we focus on a small number of key resources within LMNP.

3(a) FISHERIES - Fishing is a long-established activity at LMNP and remains the area's most significant economic activity, at least in terms of official record-keeping¹⁸. In 1994 the value of fish landed at Rwonyo was Ug. Sh. 43,025,946 (Table 9), more than twice the gate

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At the time of research there was no Fisheries Assistant at LMNP and the most recent records on file were for December 1993 to November 1994. These records do not cover illegal fish-taking from the Park's other five lakes and the swamp fishery. The accuracy of these records is far from certain.

takings of the national park. Around 50 canoes regularly fish on Lake Mburo, but generally licence holders do not fish themselves. The most common arrangement is for a fisherman (baria) to keep 40 per cent of the catch while the licencee/boat owner takes 60 per cent (Fisheries files, LMNP). The impacts of the fishery on LMNP's community are difficult to assess. While many fishermen come from neighbouring parishes and some licencees are local residents, it is clear that a significant proportion of the earnings go outside of the community. Some 18 canoes are operated by UWA staff based at LMNP: so at least 20 per cent of the value of the catch is 'lost' to the community as it goes to wardens and rangers to supplement their very low, official salaries. The peripatetic nature of the population using Rwonyo makes it difficult to find out who earns income and employment from the fishery.

While doubts have been cast about the sustainability of the fishery under present management arrangements (Busuluwa, 1992) evidence from village meetings, discussions with fishermen and casual observations of landings on Lake Kachera and Lake Mburo provided strong evidence that fish sizes, and by inference fish populations, are in a much better position at Lake Mburo than is the case of other lakes in Southern Uganda. Clearly, LMNP influence over the fishery has enhanced its likelihood of sustainability, or, at the very least, greatly slowed down the fishing-out of the lake.

To date community conservation work on the fishery has had little influence on resource use. The CCU has helped to negotiate the relocation of the fish landing from Rwonyo to a site across the Lake and adjacent to the new Park HQ. This occurred in mid-1997 and initial reports are that the Rwonyo 'community' are happy with their new village. Earlier, substantial efforts were made to re-establish and strengthen the Mutakiwa Fishing and Marketing Cooperative Society, with a view to getting more control of the fishery, and hence more of the benefits, into the hands of LMNP's community (rather than people from distant areas). After negotiations local representatives argued for the Park's community to receive a 10 per cent share of the value of the catch for community development projects, rather than more control of the fishery. This has now been agreed, but the management of the Cooperative remains weak and the 10 per cent levy has not been implemented.

Table 9	Fish Catches, Fish Mat Production ¹ and Boat Numbers
	at LMNP, 1994 ²

Month	Value of fish landed	Value of Fish Mats	Number of boats
	at Rwanyo (Ug. Sh.)	produced (Ug. Sh.)	fishing
December (1993)	1,762,160	364,800	55
January	3,356,600	554,400	60
February	3,585,496	646,485	56
March	3,860,872	392,160	50
April	3,007,750	899,460	55
May	3,434,350	1,002,060	55
June	2,614,370	968,500	55
July	3,842,220	922,500	47
August	4,796,927	876,000	47
September	3,177,630	528,500	63
October	5,225,920	332,400	66
November	4,361,652	270,550	66
Total	43,025,946	7,757,815	56 (average)

- 1. Fish mats are small, dried fish (Haplochromis spp.) woven into 'mats' using strips of papyrus.
- 2. Most recent year for which data is available.

Source: Fisheries Files, LMNP.

3(b) VEGETATION - Residents of the Lake Mburo area have long used the vegetative resources within LMNP. The only use now authorised by UWA is the cutting of papyrus reeds for the production of 'fish mats' (see Table 9) by fishermen. The use of papyrus for other purposes has also been negotiated with PRMCs, but there has been no demand for this to date. The use of pasture (see later), timber and poles, firewood (other than the collection of dead wood for fish-smoking) and medicinal plants is not allowed: in effect, the Park's neighbours have lost access to a significant resource to which their predecessors had use rights.

The main initiative taken by the CCU in this field has been with medicinal plants partly in response to needs identified in community meetings. While the majority of such plants are common and found outside of LMNP (Scott, 1993), a small number can only be found in the Park. CCU has provided materials for the planting of these scarce plants in areas outside of the Park and technical assistance. However, to date the establishment of these species outside of the Park has proved unsuccessful because of propagation problems and the availability of medicinal plants from other sources.

3(c) PASTURE - A priority activity for UWA at LMNP has been excluding cattle from the Park. Most rangers see cattle as their main 'enemy', alongside poachers. The 9160 cattle ¹⁹ grazing in LMNP in January 1991 (Kasama and Kamugisha, 1993) had been reduced to around 1000 by January 1997 (interviews with wardens). The remaining cattle are on three plots of land within the Park for which private titles exist, from the 1930s (i.e. the titleholders have a legal claim to use the land). These landowners rent grazing to other people and the number of cattle occupying them varies and is believed to be excessive.

The main means by which the cattle number has been reduced is by the resettlement of 'squatters' out of the Park (see earlier) and by the policing of the park boundaries. Patrols regularly seize cattle grazing in the Park (by accident or by intent), kraal them at Park HQ and require that owners pay a fine if they wish to get the cattle back. This is particularly a problem in the areas adjacent to the Park Gate-Sanga axis. A recent case in Nombe parish provides an illustration of the pasture access problem (Box 2). The fine system appears to be negotiable, however. In some cases PMAC and PRMC members intervene, and can help bargain down the ultimate size of the fine. At other times rangers take a bribe and turn a blind eye to cattle grazing or are '...kind, and let us off with a warning' (a respondent from Rwambira Parish).

From the available evidence it is clear that two forms of cost are imposed on LMNP communities because of present policy. The first are the costs arising from not being able to access pasture within LMNP; the second are the direct (fines and bribes) and indirect (time and energy negotiating with LMNP) costs that occur when cattle trespass. For cattle-keepers near to the Park the lack of reciprocity in Park-community relationships is self-evident because of the pasture issue.

BOX 2

CATTLE AND PASTURE AT LMNP - AN INCIDENT AT NOMBE

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Other observers believe that this figure is an underestimate and that in 1991 some 20,000 cattle were 'resident' at LMNP and up to another 60,000 were moved in temporarily because of drought (pers. comm. Mark Infield).

During a focus group meeting at Kasharara Trading Centre participants complained about the Park and about being harassed and beaten up by rangers. When asked to provide details of a specific incident participants went away and fetched a young man.

The man reported that he had been grazing 30 cattle in LMNP some weeks earlier as he could not find good pasture in Nombe. He had two young children herding the cattle. Rangers spotted the cattle, rounded them up and took them to Park headquarters. When he went to fetch the cattle he was 'beaten up and put in jail' at the Park, and eventually released when he agreed to pay a Ug. Sh. 100,000 fine. (Group members stated that he was bruised and cut on his return from the Park). He raised the money from friends, paid the fine, took the cattle back to Nombe and sold one off to repay debts to friends.

During interview he made it clear that he would take any opportunity he had to 'pay back' the Park, its staff and its animals because of this incident. The other participants in the focus group regarded such an attitude as a social norm not as social deviance.

Ironically, the policy of cattle exclusion pursued by LMNP may be dysfunctional in terms of both habitat integrity (see Kangwana, 1998) and long-term Park viability. Wardens, rangers and local residents all report that scrub encroachment (mainly <u>Acacia hockii</u>) is occurring at LMNP and one popular hypothesis is that this is because cattle no longer graze in the Park. ²⁰ If this is the case then, in the long run, it will lead to habitat change, and potentially biodiversity reduction, and will make the Park less attractive to tourists as game-viewing will be more difficult. While wardens and rangers at LMNP found such a scenario quite likely most were adamant that 'keeping cattle out' must remain a Park priority.

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Why bush encroachment is occurring is a complex and little understood phenomena. Key variables include rainfall patterns, cattle numbers and patterns of grazing, the frequency and form of fires, the cessation of bush cutting by people and the extinction of browsers, such as elephant and black rhino, at LMNP.

3(d) WATER²¹ - For centuries the permanent surface water at Lake Mburo and the River Ruizi (that runs along the south-western boundary of LMNP) have been important areas for watering cattle during periods when more localised water supplies dry up. Declaration as a National Park meant that cattle-keepers in this region could no longer access this water. This has caused a great deal of trouble during dry seasons, particularly for people on the Kanyayeru Settlement Scheme who keep large numbers of cattle and have no reliable dry season watering places. In response to requests for access the CCU brokered negotiations between the parishes of Akaku and Rwamuranda and LMNP for a 'cattle corridor' from Rwamuranda to the River Ruizi across the Park. The agreement was drawn up as a contract between the Parish Resource Management Committees (PRMCs) and the Park for 47 specified cattle keepers to be allowed to take their herds (2233 animals in all) to water at the River for three dry seasons. The agreement specified that during the period of agreement, which is concluded in March 1997, the PRMCs must develop their own water supplies outside of the Park.

Reports on the achievements of 'water sharing' differ markedly. Users from Rwamuranda reported favourably on the corridor and on the Park's assistance in solving their problem. CC staff reported that it had greatly assisted the cattle herders and had helped improve relationships with a community that had previously resented the Park because it fined them for grazing incursions. By contrast, other wardens and rangers argued that the agreement had been abused. While no damage had occurred to the Park because of the corridor villagers had '....used it as an excuse to graze cattle in the Park....cheated by taking their relatives cattle along the corridor....and, done other illegal activities'. Such worries had led to the LMNP Management Plan (Bataamba, 1994) not mentioning cattle corridors because of UNP staff seeing them as being problematic. They took a very contractual approach to the agreement, looked forward to its completion and argued that it should not be renewed, as PRMCs had failed to develop alternative water supplies. The problem that cattle herders would face in the future was '....nothing to do with the Park'. From this perspective community access to Park resources referred to temporary contracts at times of crisis, not to mutually negotiated use that achieved conservation and development goals²².

In addition to the cattle corridor discussed in this section the Park also granted permission for cattle keepers in Rwambarata Parish to cross the Park in mid-1996 so that they could avoid taking cattle through an area where a foot and mouth disease outbreak had occurred.

Subsequent to fieldwork the cattle corridor agreement was extended. The PMAC has agreed that Akaku and Rwamuranda parishes should use revenue - share funds for dam-construction to solve this

3(e) WILDLIFE - Wildlife is an important 'shared' resource at LMNP, although this is on an illegal basis²³. The poaching of larger animals, particularly impala, occurs in the Park and, on a significant scale, in its dispersal area. The evidence of this is undeniable: there are regular arrests and bushmeat seizures (see earlier sections); during fieldwork local residents described how they poach; several respondents reported that Local Defence Committees use their guns for poaching and LMNP rangers confirmed this; the PMAC has openly discussed the role of staff in the former Game Department in organising poaching; and, there are very strong indications that personnel from the large military barracks at Mbarara have, at least in the past, supplemented their income by poaching. The poaching takes a variety of forms from organised commercial poaching, to subsistence hunting, to 'revenge' killing of animals. Although Kazoora and Victurine (1997) report a widespread belief that poaching levels have reduced this is far from proven. It is clear, however, that improvements in Park-people relations have led to the virtual elimination of the systematic extermination of animals that occurred in 1985 and 1986.

Only crude computations of the economic significance of poaching can be made because of the limited data available on the changing size of wildlife populations at LMNP and its environs (Lamprey and Michelmore, 1996). At the bottom end of the spectrum Fraser Stewart (1992) estimated an annual offtake of impala of around 600 per annum. Assuming that this level continues and that a hunter can get around US\$45 for the bushmeat (pers. comm. Mark Infield) then the total annual value of impala poaching is around US\$27,000. At the upper end if Olivier's (1992) estimate of around 18,000 impala is taken as the size of the population, one assumes a sustainable offtake of around 11 per cent per annum (easily achieved in impala) and a value of US\$50 to US\$70 for meat and other products per animal (pers. comm. Brian Heath), then the value of 'production' would lie between US\$100,000 to US\$140,000. Given that other animals - waterbuck, bushbuck and duiker are also poached then the present value of wildlife offtake at LMNP and its dispersal area could reach US\$150,000 per annum. At the upper end of projections the value of illegal poaching in the LMNP area could exceed the total income generated by visitors to the Park and fisheries (see earlier sections).

problem. PMAC will contribute US\$10,000 for dams and local communities US\$5,000 (in cash or kind).

Up until 1996 wildlife utilisation (i.e. hunting) in Uganda was prohibited. Recent legislation now provides for hunting through granting of use rights, although this has not yet been implemented.

The effects of community conservation activity on wildlife utilisation, to date, are limited. The illegality of hunting has meant that CCU has not been able to negotiate with communities about this activity. CC activity has contributed to reduced 'extermination' hunting and an increase in tip offs about some poachers, but these are insignificant impacts given the likely scale of poaching. Recent policy changes in Uganda will almost certainly make wildlife utilisation a key focus for community conservation in the future as UWA will have to negotiate use rights and use right monitoring with communities.

3(f) TOURISM - Early plans for community conservation at LMNP envisaged that benefit flows to neighbours could be increased by, (i) involving local residents in an expanding tourist industry, and (ii) increasing the amenity value of the Park to local residents by encouraging them to visit in larger numbers.

Although visitor numbers have steadily increased (Table 2) their numbers remain relatively small and, given that many are day trippers or campers, they provide little 'value added' economic benefits to the local or national economy. The early negotiations to establish village campsites and bandas, a cultural centre and handicraft production have foundered and very little tourist revenue (other than 'revenue share' projects) feeds into the economy of neighbouring parishes. The 50 or so jobs within UWA at LMNP are supported by tourist revenue, but most of these jobs have gone to people from other parts of Uganda. The two concessions for tourist accommodation within LMNP, awarded in 1993, contribute relatively little. The concession over Rwonyo Camp Site has been revoked and this camp is now run by the Park. It employs 6 people of whom 3 probably come from the local community. The concession for Kachera Luxury Camp Site is in dispute (Kazoora and Victurine, 1997). During fieldwork the occupancy rate at this 10 person site was less than 25 per cent. It provided employment for 5 staff (none from the LMNP community) and was operated by an expatriate businessman. The US\$2000 per annum ground fee and 5 per cent royalty due to UNP have never been paid (ibid.). Very little of the earnings from this camp feed into the local economy! Kazoora and Victurine's (1997) study examines the possibility for tourism activities to provide more economic benefits for the Park community, but there is little to indicate that this could grow significantly in the next five years.

Community members have increased their official access to the Park in recent years, with 645 local residents visiting in 1996 (Table 3). But this is a tiny figure in comparison to the 80,000

plus residents of neighbouring parishes. Hardly anyone interviewed during fieldwork had visited the Park for amenity purposes and usage is so low that the majority of PMAC members, two years after appointment, complained that they had never visited the Park (PMAC minutes of 22/3/96). The acquisition of a lorry by the Environmental Education Unit at LMNP has greatly increased the number of students visiting the Park, and this seems likely to increase, for as long as aid donors are prepared to support operational and maintenance costs.

3(g) SUMMARY - Community conservation at LMNP has opened up new opportunities for the Park's neighbours to access resources. Previously this was only significant (in official terms) with regard to fishing. By 1997 access to vegetation and water had been opened up and the possibility of extending resource-sharing into wildlife utilisation outside the park seems likely. The Park authorities remain adamant, however, in their conviction not to allow villagers' cattle access to LMNP's pastures. While the change in attitude of LMNP management has helped to persuade the community that the Park is no longer a fortress the actual volume of resource-share benefits accruing to neighbours has only increased marginally to date and, in per capita terms, is very small.

4. Community Participation in Park Management

At the time that the CCU was established at LMNP there were no formal structures for community liaison or participation in park management. The CCU helped to establish wildlife clubs and parish level Local Conservation Committees (LCCs) to consult about SCIP projects. People with complaints or grievances about the Park could take action by directly approaching the Warden-in-Charge or through local representatives at cell (LC1) or subcounty (LC3) levels. However, the announcement by the Director of UNP in 1991 that Uganda would pursue a revenue-sharing policy (as had been announced by the Kenya Wildlife Service) led to a series of meetings to determine both policy and institutional mechanisms. Wardens-in-Charge were directed to establish Park Management Advisory Committees (PMACs) during 1992 and 1993. In some Parks this was done by bringing together groups of local 'big men'. LMNP opted for a more democratic approach and arranged for parish level elections of PMAC representatives. Despite this approach, in LMNP as in other areas, PMACs were developed to meet a UNP need: they did not derive from the demands of park neighbours.

Two points relating to the evolution of PMACs are of particular note. First, UNP was under strong pressure from USAID which had made community participation in park management a condition for future funding. Secondly, a USAID-commissioned report had recommended that Park Management Committees (PMCs) with community representatives would be the appropriate vehicle for community participation. In the process of adopting and adapting these recommendations UNP determined that community participation would be 'advisory' and not executive.

At LMNP the PMAC is comprised of 13 members, each representing a bordering Parish Resource Management Committee (PRMCs have taken over from LCCs). The 13 members select a chair from their number. The decision to work at parish level follows on from the definition of the Park's community as neighbouring parishes and has the advantage of keeping the size of the community down (i.e. to operate at sub-county (LC3) level would increase the Park's community to more than 250,000 people). It also has the added advantage of keeping 'active' politicians out of park management as the level at which local politicians operate is the LC3. However, it means that the park liaises with a weak tier of government which has minimal resources, responsibilities and capacities, as devolution in Uganda has focused on the sub-county as the operational unit.

PMACs role, as defined in its draft terms of reference, is to advise LMNP management; serve as a channel of communication; raise the awareness of natural resource conservation issues; represent community interests to LMNP; approve and fund revenue-sharing projects; discuss ways of accessing LMNP resources for the community; monitor and report on revenue sharing and resource sharing programmes. In practice it has focused almost exclusively on revenue-sharing projects. The PMAC at LMNP agreed to meet every 4 months, but in practice it has met only five times in its two and three-quarter years of existence²⁴.

The functioning of PMAC has been sporadic and limited. Interviews and records confirmed that it is dependent on the energy, initiative, resources and finances of LMNP and that it has substantial problems. The minutes reveal that members are unsure of their role: some see this as being a 'ranger' position and have expected uniforms and a salary. Establishing a meeting allowance, and subsequently increasing it (from Ug. Sh. 3,000 to 10,000) have been key issues for members. PRMCs and the PMAC have focused mainly on revenue-sharing projects: resource sharing and other management issues have received only limited attention. To date the costs of meetings (roughly Ug. Sh. 300,000 per meeting) have been met by donors as there are concerns that if the PMAC used revenue-share funds for its own administration then these would rapidly disappear.

PMACs internal weaknesses, allied to LMNP staff attitudes and perceptions, has meant that efforts to strengthen PMAC have achieved little to date. From the perspective of conservation bureaucrats (i.e. UWA) the PMAC should be strong at implementation but not strong at negotiation and bargaining. Concerns about PMAC being captured by 'politicians' mean that the Park is keen to stop it from linking into decision-making bodies at the LC3 or LC5 level or becoming part of a federation of PMACs. Recent changes in UWA policy may create a chance for a reconstituted PMAC to get directly involved in park management. At present, as senior staff at LMNP correctly argued, the PMAC is an institution 'without roots': the communities it is meant to represent remain blissfully unaware of its potential role.

COMMUNITY CONSERVATION AT LMNP AND THE ECONOMICS OF CONSERVATION²⁵

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The committee met 3 times in 1994 but there was then a 16 month interval until its next meeting in March 1996.

This is a preliminary examination and a forthcoming paper by Emerton (1998) will explore the issue in detail.

NATIONAL - At the national level and from a resource economics perspective, the current resource use of LMNP is a substantial drain on Uganda's economy. It has areas suitable for rainfed farming, swamps that could be agriculturally productive if drained, some land that could produce 'premium' crops such as coffee and a large remaining area suitable for cattle grazing. Its position means that it acts as a barrier to north-south and east-west communications and trade in the Mbarara District. The economic benefits it produces at present - that would be lost if it was developed - are a minor tourist industry and the poaching of wildlife. ²⁶

Mason (1995) examined the value of agricultural production foregone by Uganda because of its opting to protect national parks and game reserves. Using the agricultural potential values he projects (ibid:45), but modifying the calculation to match LMNPs present size and resources, the agricultural potential foregone by the protection of LMNP has a minimum value of US\$ 42.7 million per annum but may be as high as US\$ 103.9 million per annum (Table 10). It is fair to argue that these figures are only projections: but still the scale of their magnitude over the income from tourism and poaching (around US\$ 250,000 per annum at the maximum) makes it beyond doubt that the Ugandan economy pays dearly and, given the economic prospects for tourism and poaching will continue to pay dearly, to achieve the country's conservation goals at LMNP.

COMMUNITY - Table 11 summarises the costs and benefits that accrue to LMNP's 'community' directly from the Park. It does not include the vast opportunity costs of not being able to farm and graze the land. Three conclusions can be drawn from the summary. First, that the direct benefits accruing from LMNP are very small in per capita terms - of the order of Ug. Sh. 2,650 per capita per annum - and are more than offset by the direct costs of crop raids, problem animals and 'harassment' by rangers. Second, that the CC programme has helped to improve the level of benefits and marginally reduce costs: it has not, however,

Table 10	The Annual Agricultural Potential Foregone by Uganda through the Conservation of LMNP ¹ (1995 prices)		
		Values	Annual Agricultural Production Foregone

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On the assumption that the fishery regime at LMNP would continue as at present.

Basis of Assessment ²	(US\$ per ha)	Per Annum (US\$)
Minimum Scenario (Average Value		
for NPs and GRs in Uganda)	237	42.7 million
Likely Scenario (Average Value for NPs and GRs in Uganda)	575	103.9 million
Minimum Scenario (90km² of 'high' average potential savannah and 90km² of 'low' average potential savannah)	high 359 low 186	49.1 million
Likely Scenario (90km ² of 'high' average potential savannah and 90km ² of 'low' average potential savannah)	high 728 low 435	102.4 million

- 1. Assuming 180km² of LMNP has agricultural potential, that 50 km² are permanent water or swamp and that 30 km² are too steep for cultivation or grazing.
- 2. Computed from Mason (1995:45).

managed to raise benefits to a level that could be regarded as significant by the local population. Thirdly, that benefits and costs are very unevenly distributed. People bordering the north of the Park incur high costs (in the form of crop raids and 'trouble' with rangers): those living to the south incur few direct costs, but are able to benefit from the Park at average rates. In addition, during fieldwork old people and widows reported that because they cannot stay in the fields and scare animals off at night-time they suffer particularly high levels of crop damage.

WHAT HAS COMMUNITY CONSERVATION CONTRIBUTED TO LMNP INSTITUTIONALLY?

The adoption of a CC approach at LMNP has produced considerable benefits for the organisation that manages LMNP. The two most evident benefits are park-people relationships and attracting donor funds.

The qualitative data collected from LMNP's neighbours and its UWA staff provides clear evidence that the activities of the CCU have made a significant contribution to improved park-people relationships (see earlier sections). By negotiating the voluntary resettlement of 'squatters' and demonstrating that the local community can derive tangible benefits (however limited) from LMNP, the CCU has helped to reduce the enormous animosity that people felt

towards the Park and to stabilise relationships. The processes involved in these activities - holding meetings, and elections, meeting with local leaders, showing videos etc - have opened up communication channels between LMNP officials and local residents that make the possibility of trust and reciprocity much more likely. The capacity of the Park management to continue to function effectively if this amelioration had not occurred is doubtful.

Secondly, the adoption of a CC approach at LMNP has permitted the Park's management to attract donor funding to meet routine operational costs and development costs. By the early 1990s donors would have been highly unlikely to finance a 'protection only' initiative in Uganda. The LMCCP/CCUWA provided a framework for donors to support the establishment of CC and to provide funds for general management purposes (e.g. park facilities improvement and the preparation of the management plan). Leakages from the CCU, in terms of the use of its staff, vehicles and fuel for general management, provided additional resources for Wardens in Charge at LMNP. The activities generated by aid-finances 'snowballed' and helped to attract GTZ support for the Integrated Pastoral Development Project on ranches around LMNP. Adopting the CC approach as a means of gaining additional resources may not have been a conscious strategy for UWA or LMNP managers, but this has undoubtedly been one of the results.

Internally at LMNP, the initial CC experiments have led to the permanent establishment of the CCU with 2 wardens and 3 rangers. However, the CCU will have to overcome substantial challenges in coming years if it is to become an effective and partially sustainable part of the management structure. In terms of finance it will need to reduce its costs and strengthen its claims over core LMNP income if it is to remain operational once donor funds are withdrawn. In terms of its own institutionalisation it will need to clarify its role and methods so that other

sections at LMNP and wardens can understand 'what' it does. Finally, it needs to develop a

TABLE 11	THE ECONOMIC BENEFITS AND COSTS OF LMNP FOR ITS 'COMMUNITY'					
ACTIVITY	BENEFITS	COSTS	ROLE OF COMMUNITY CONSERVATION UNIT			
Fishing	Offtake valued at Ug. Sh.43 million in 1994, a major part of which accrues to community. Also illegal fish offtake in swamps and other lakes.		Has attempted to strengthen the fisheries cooperative without success. Negotiating for extension of legal fishing into swamps and other lakes.			
Wild animals	Substantial commercial and subsistence poaching, valued at Ug. Sh.150 million per annum. A good share of this accrues to the community.	 Very high costs reported by farmers because of bush pig and baboon raids. Sweet potato, cassava and peanuts cannot be grown in some areas. A share of this problem, but not all, is LMNP induced. Occasional loss of life and insecurity because of buffalo and hippo attacks. 	Has attempted to ensure that responses to problem animals and raids are dealt with more rapidly and sympatheti-cally, but few tangible changes. Has promoted <u>bwara</u> fences, but only adopted to date.			
Water	2,200 cattle permitted to water at River Ruizi for 3 dry seasons. 580 cattle permitted to water at Kizimbi swamp for one dry season.		Negotiated through CCU, and very much appreciated by cattle-keepers			
Grazing	Illicit grazing in the Park.	Fines, beatings and 'harassment' if caught in the Park.	Has initiated research on role of grazing for habitat management.			
Vegetation	Production of mats valued at Ug. Sh. 7.8 million in 1994. Provision of planting materials for medicinal plants.		Research commissioned into use of vegetative products by community. Propagation of medicinal plants outside of LMNP unsuccessful to date. (contd)			

Tourism	Revenue-sharing has funded community projects valued at Ug. Sh.8.5 million (1995) and Ug. Sh. 4.4 million (1996). In future 20 per cent of gate royalties for community projects.	CCU has been central to the promotion of revenue sharing at LMNP and throughout Uganda. Other project activities have expanded the level of visitors.
Attracting aid funds	 CCU activity attracted SCIP funds for local communities 1991-1994 and matching grants with revenue share 1995-1997. Aid associated activity (a small number of jobs and local purchases) has fed into local economy. Donors provided Ug. Sh. ? million to meet the costs of compensation for 'squatters' resettled out of LMNP. 	CCU directly responsible for attracting aid funds.
Amenity value	Increasing numbers of community members (645 in 1996) and students (2,029 in 1996) visit the Park. Around 2 per cent of the defined 'community' visit the Park each year.	CCU has encouraged local resident visitors and worked into the Park's Education Unit to increase student visits.

Source: See earlier sections of paper.

strategy by which a CC approach becomes an integral component of all LMNP staff activities and not simply an 'add on' as at present. Its success in this will be measured in terms of its ability to influence the behaviours of those involved in 'law enforcement' at the Park and more generally in Park management (employment policies, road maintenance etc).

WHAT HAS THE CC APPROACH AT LMNP CONTRIBUTED TO UWA AND NATIONAL POLICY?

While a whole set of different initiatives have helped to persuade Ugandan policymakers and UWA senior managers that the country had to modify its approach to conservation there is direct evidence that the LMNP experience has pushed CC on to the policy agenda at the national level. The CC coordinator and technical advisor at UWA headquarters in 1997 are both products of LMCCP Phase 1. Many other UWA staff have been exposed to the idea of community conservation by working at or visiting LMNP or being briefed on the work of the CCU. Donors and international NGOs have kept a close eye on LMNP to identify 'lessons' for other projects in Uganda. The contribution of the CCU to improved Park-people relationships at LMNP was seen as practical proof that 'community conservation works' and aided the rapid diffusion of CC through UWA.

However, the CC approach at LMNP has left a legacy that must be dealt with if CC is to be fully institutionalised within UWA. The CC model that was developed at LMNP has a high cost structure - four-wheel drive vehicles and their operational costs, substantial staff travel allowances and incentives and park-based wardens and rangers. Such a model was probably inevitable given donor involvement and the pressing need to achieve significant results in the first two to three years. With the wisdom of hindsight, however, we can see that the capacity of UWA, and the Ugandan economy more generally, to service such costs is low. Having proved that CC can be effective in Uganda the next task is to find means by which it can become efficient (i.e. produce similar results at lower levels of unit cost). The ultimate challenge for CC will be whether UWA funds it as a core activity when donors withdraw, or whether it is treated as a donor-financed 'luxury' that will be abandoned when the aid flows stop.

LESSONS FROM LMNP

The depth and richness of the CC experience at LMNP mean that a vast number of potential lessons could be drawn. Those identified below represent a 'first stab' at such a task.

- CC can be an effective and rapid means for stabilising and improving park-people relationships in contexts where these have become negative and hostile.
- The idea of CC can diffuse 'upwards' from the field through a conservation bureaucracy and into national policy.
- External funding and technical assistance can facilitate the adoption of a CC approach but are likely to produce operational models which cannot be locally financed and are thus likely to be unsustainable. A greater focus on low cost approaches to CC such as village-based rangers, para-rangers, bicycles for transport is needed if Africa's poorly financed conservation agencies are to be able to adopt CC approaches.
- The predominantly para-military culture of conservation bureaucracies and their
 prioritisation of law enforcement is unlikely to be rapidly changed by CC
 initiatives. However, CC must seek coordination and/or integration with other
 Park activities and must strive not to be seen simply as a small unit that is 'added'
 on to existing establishments.
- While the promotion of community-based income-generating schemes is desirable
 CC practitioners need to approach enterprise development with caution because of the high probabilities of failure. Encouraging specialist agencies 'in' to undertake such work may be the wisest approach.
- Funding social infrastructure, particularly schools, can be an effective means of rapidly improving relations with large numbers of neighbours at relatively low costs. Such improved relations are likely to remain fragile, however, until underlying Park-people problems and conflicts are fundamentally addressed.

CONCLUSIONS

The conclusions drawn from the community conservation experience at LMNP depend on the perspective that is taken, the timescale that is employed and the level of analysis.

Community conservation at LMNP has been based on a 'passive participation' approach (IIED 1994:60) or what Barrow (1997:9) classifies as 'protected area outreach'. It has informed and consulted neighbours, helped establish channels for communication, broken down long-established antipathies and produced a limited flow of tangible benefits. A more radical approach, such as collaborative management (ibid) would have been unthinkable for UNP in the early 1990s. In addition, it would be difficult to operate in the LMNP context of 'low trust': with wardens unkeen on rangers negotiating resource access with communities because of bribery; communities distrustful of the Park and its staff; communities that are vulnerable to manipulation and exploitation by their leaderships; and inter-community relations that are weak or fractious.

At the park management level community conservation has been an effective additional approach to existing strategies. It has aided the achievement of short and medium term targets, although at a cost that is dependent on donor subsidies (though this may be a norm for most contemporary protected area management in Africa). From other perspectives, with a longer time frame, its achievements appear more modest.

From a conservation perspective (key species, biodiversity or habitat) there is insufficient evidence to prove what CC has contributed. There is evidence, however, that CC has helped to reduce the likelihood of rapid biological degradation in the Park and has been effective in retaining the potential for conservation in the future (Kangwana, 1998). This has been achieved by significantly contributing to improved Park-people relationships, strengthening the flow of visible benefits accruing to neighbours from the Park and reducing levels of local resident behaviours that are detrimental to Park integrity.

From a developmental perspective the partial and potential achievements of CC in terms of conservation are mixed. In socio-political terms the CCU's activities have made small but potentially significant contributions to community cohesion at the parish level and have reduced levels of tension between state officials and local people. A small amount of 'reciprocity' by the Park has produced high returns in improved relations. However, the institutional framework for managing state-society negotiations about conservation goals and natural resource use remains in its infancy and, in spite of elections, power clearly resides in the state and its agencies and co-opted elites from within communities. Economically CC has increased the flow of tangible benefits to the community and marginally reduced some of the

costs imposed on it. However, set against a target population of more than 80,000 people to whom an enormous set of cultivation and grazing potentials are denied (perhaps livelihoods for around 1800 households), these benefits are minute. Community conservation has (not surprisingly) failed to reverse the economic fundamentals of conservation at LMNP: that the costs of not developing this area of high agricultural potential are great while the benefits are limited and largely accrue outside of the 'community'. To put it bluntly, conservation at LMNP is a significant drain on the Ugandan economy.²⁷

The main beneficiaries of conservation at LMNP - and of its increased likelihood because of the CC initiative - are international and Ugandan conservationists, the Ugandan conservation bureaucracy, donor agencies and foreign tourists and visitors. In the extreme, a case could be made that LMNP is a well-disguised form of 'quiet violence' that provides benefits to a small national and international elite (and tens of millions of couch potato conservationists worried about African wildlife) while making the livelihoods of tens of thousands of rural Ugandans poorer: ensuring that some have no supper, some have no schooling and some remain unemployed or underemployed! In theory the Park, along with the rest of the country's conservation estate, is for 'the people of Uganda' both present and future. In practice fieldwork indicated that the priorities of local people place a high value on environmental changes that UWA and conservationists would regard as environmental degradation.

Regardless of the conclusions reached about 'ultimate impacts', community conservation at LMNP has identified a number of challenges for CC as an approach. At LMNP it is still a fragile transplant, heavily dependent on aid finance and reliant on a small number of key personnel. At community level it is institutionally weak: this is not a criticism, but an acknowledgement of the difficulties and long term nature of building local level conservation bodies in communities where the incentives to conserve favour soil, water, grass and firewood but not key species or biodiversity. The conservation incentives structure that villagers now face is comprised of both CC 'carrots' and conservation law 'sticks'. CC has not displaced the old 'fines and fences' approach at LMNP but works alongside it. This is a common situation in African conservation, despite attempts to present such initiatives as 'partnerships' or 'collaborative management'. The relationship between CC and enforcement

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It must be noted that from a comparative perspective LMNP may represent an unusual position for African Parks. It has relatively high level agricultural potential and relatively low tourist potential.

activities is unclear. At present UWA has not really thought of CC beyond the level of adding it to existing structures.

Community conservation at LMNP has been approached with great vigour and imagination. Lessons from LMNP have diffused into UWA, as an organisation, and into Ugandan conservation policy more generally. But does it focus too much on the responsibilities of local communities and insufficiently on more distant stakeholders? Staff at LMNP talk of their long term objective as getting local residents to describe the Park as '....our park'. But, given the economic fundamentals of not developing LMNP for agriculture, should not a major focus be on the responsibility of the national and international conservation community? Isn't LMNP 'our park' (by this I mean the readers of this paper and their constituencies - wildlife managers, conservation NGOs, international aid agencies, concerned individuals, the publics of OECD countries)? Is community conservation a means by which we direct marginal additional benefits to local communities and talk of 'participation' while avoiding the fundamental question of who bears the costs of conservation in Africa? If it is, then this is to be deplored. If it is not, then we should be aware of the long term outcome: that eventually communities will define what 'conservation' is rather than national and international elites. For the Lake Mburo region, at least, this will be a fundamentally different definition, based on natural resource sustainability, images of the landscape and opportunities for tourism, rather than the biodiversity criteria that have been pursued at LMNP to date. Perhaps the ultimate achievement of community conservation at LMNP, from a conservation perspective, will be the ways in which it changes the ideas that local communities hold about conservation. If so, its initial contribution has been positive in helping to reduce the 'anti-wildlife' values so strongly held by local people in the late 1980s.

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