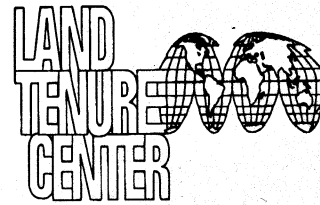




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The Socioeconomy, Natural Resource Use, and Attitudes Towards the Park of Communities Living In and Around Lake Mburo National Park: Report of a Rapid Rural Appraisal

by

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Lake Mburo Community Conservation Project

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**ACCESS TO LAND AND OTHER NATURAL RESOURCES IN UGANDA:
RESEARCH AND POLICY DEVELOPMENT PROJECT**

Research Paper 2

Prepared for Makerere Institute of Social Research and the Land Tenure Center

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All views, interpretations, recommendations, and conclusions expressed in this paper are those of the authors and not necessarily those of the supporting or cooperating organizations.

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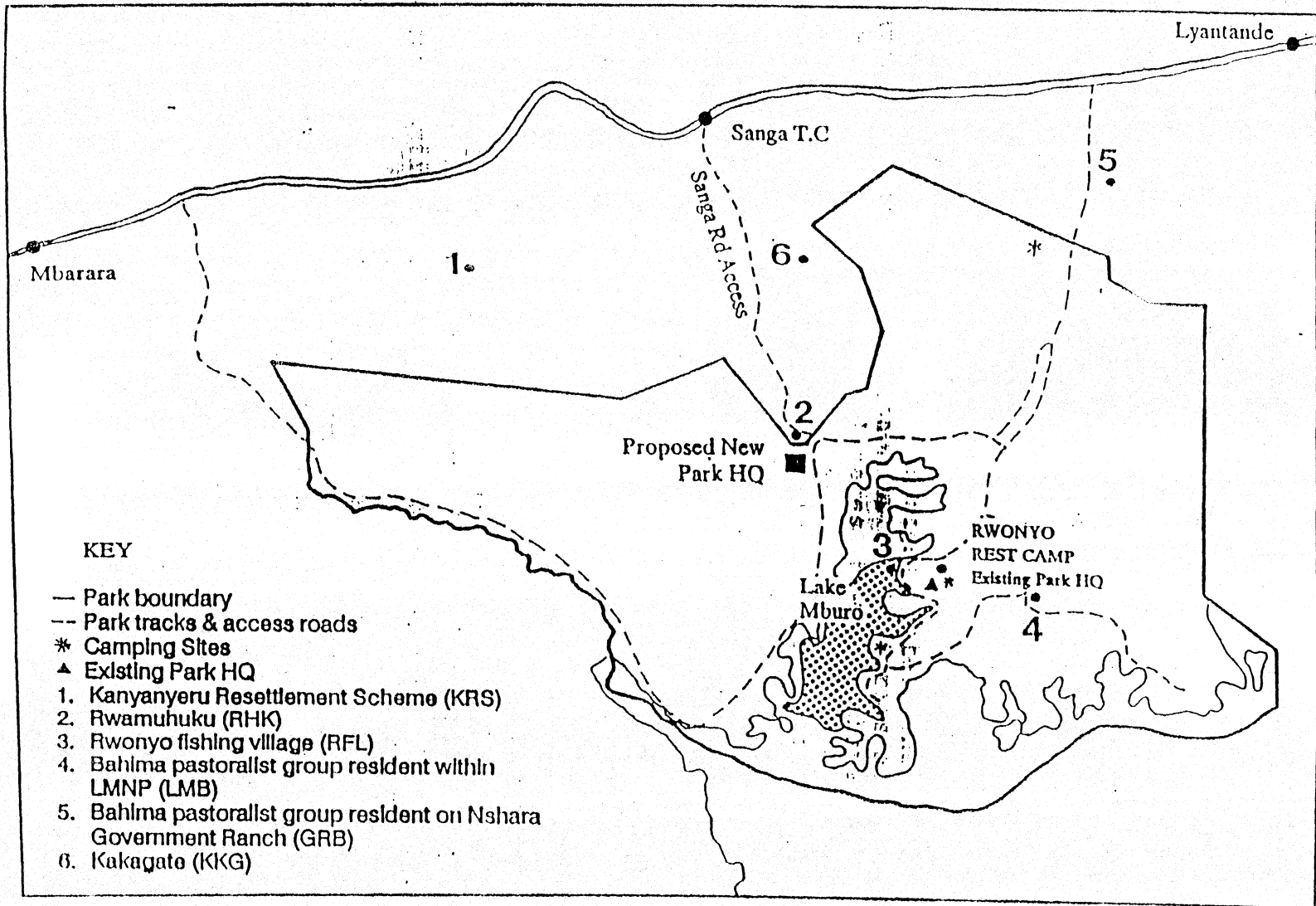
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SUMMARY

A Rapid Rural Appraisal was carried out by a team of researchers in six communities located in and around Lake Mburo National Park over a one-week period. The survey was carried out to provide background information on the economies of local communities, their land use and patterns of resource use, and their knowledge of, and attitudes towards, the park. Three basic economies were identified: pastoralism, subsistence agriculture, and fishing. There was some degree of mixing of cattle keeping and agriculture. The most important problems perceived by the communities interviewed were the damage to crops by bush pigs believed to come from the park and the shortage of permanent water sources for cattle watering during the dry seasons. Both these problems led to strained relations between local people and park authorities—especially the latter problem, for significant permanent water sources are located within the park. Very little understanding of the importance of conservation or the dangers of environmental degradation was evident. Soil erosion, which is widespread in the area surveyed, caused little if any concern among the communities interviewed. Land tenure was revealed as a crucial issue for the communities, which have suffered from great uncertainty over their land tenure position, partly as a result of the creation and subsequent reduction in the size of the park. Agencies wishing to carry out conservation or development in the area will be affected by the uncertainty in land tenure.

Location of communities visited by the RRA team.



I. INTRODUCTION

The Lake Mbuo Community Conservation Project (LMCCP) aims to improve the relationship between the national park authorities and the surrounding communities and to alter attitudes of the local people towards Lake Mbuo National Park (LMNP). One of the main mechanisms to achieve this aim will be to assist local communities by developing microprojects that improve the standard of living and quality of life in local communities while enhancing the conservation status of the park.

To enable the project to make rational decisions concerning microprojects it is necessary to gain a sound understanding of the local economy, patterns of settlement, and systems of land and resource use.

Monitoring project success with respect to improved attitudes towards the park among local people also requires that the project gain a clear understanding of existing attitudes towards the park so that any shift in perceptions can be recorded. This is important for the project itself but also will contribute to the growing body of knowledge concerning projects dealing with relations between conservation areas and surrounding communities. This information will enable the African Wildlife Foundation to improve its planning of projects within its "Protected Areas: Neighbours as Partners" programme. The information also will be available to other organisations working in similar fields.

This paper describes the Rapid Rural Appraisal (RRA) carried out by the project in communities living in and around the park. The survey was preliminary to a more detailed questionnaire survey, which will be administered in the same area by LMCCP.

The purpose of the RRA was to gain a general understanding of the way of life of the park's neighbours, identify the main issues concerning their relationship with the park, and bring to light any factors over which there is confusion and lack of understanding. The results will enable the project to design a more detailed and searching questionnaire survey which will target issues and questions raised by the RRA.

A. OBJECTIVES

The objectives of the RRA were to:

- investigate the socioeconomy of the communities living in and around LMNP;
- identify trends in human settlement in and around LMNP and the effects of government policy on human settlement in the area;
- examine patterns of resource use by the communities and attitudes towards natural resources;
- identify the problems and needs of the communities in and around LMNP with special emphasis on the costs of the establishment of the park borne by the people;
- examine attitudes of local communities towards LMNP and identify factors affecting attitude formation;

- investigate the extent to which socioeconomic activities are affected by LMNP and examine how this affects people's attitudes towards the park; and,
- identify key issues and problems to enable improved design of a detailed questionnaire survey.

B. THE RRA TEAM

The RRA team was selected to draw together individuals with various expertise relevant to the investigation. The team consisted of the following experts:

- land tenure specialist (team leader)
- socioeconomist
- wildlife specialist
- natural resources specialist
- community conservation specialist
- conservation educationist
- natural resources economist
- interpreters

C. METHODOLOGY

Questions to be used during the RRA were designed and revised by a core group of the RRA team. Advice was sought from as wide a range of people as time permitted.

A preliminary site visit was made by the team leader and the community conservation specialist to examine the area and determine the types of communities to be visited by the RRA team. The Warden-in-Charge of LMNP was briefed on the RRA and the logistics of the survey were discussed.

The RRA was initiated with a formal visit to the District Administrator to discuss the objectives of the RRA and to gain permission to carry out the survey. The RRA team then met with the Warden-in-Charge of LMNP to discuss in detail the issues as perceived by the National Park authorities, in particular the relationship between the conservation area and surrounding communities. These discussions helped the RRA team modify its selection of communities to ensure that they were representative of the various types of lifestyles and economies of people living in and around the conservation area.

Six communities were visited (see map). Members of the community were requested to gather or, in the case of Bahima communities, had been requested to gather the day before the interview. More notice was not given as it was believed preferable to get spontaneous responses. Interviews were conducted between the RRA team and an average of 20 people.

Interviews were conducted by a single representative of the RRA team who acted as questioner, or "front person." This person engaged the group directly. The question list prepared in advance was used to guide the fairly unstructured group discussions while team members took notes and asked supplementary questions.

Following the interviews, the RRA team compared notes and impressions. Any variations in the information recorded or impressions gained were discussed and a single set of notes for each interview was written. These notes form the basis of this paper.

The six communities visited by the RRA team were:

1. Kanyaryeru Resettlement Scheme (KRS)
2. Rwamuhuku (RHK)
3. Rwonyo fish landing (RFL)
4. Bahima pastoralist group resident within LMNP (LMB)
5. Bahima pastoralist group resident on Nshara Government Ranch (GRB)
6. Kakagate (KKG)

D. METHODOLOGICAL PROBLEMS

The methodology described above was found to be problematic in some respects. The purpose of the RRA is to allow information to be collected from a wide range of local people through an unstructured discussion. The belief is that the group will be able to discuss the questions put by the RRA team and come to a form of consensus.

Little such discussion actually took place. Though in most cases a reasonable number of community members attended the discussion, contributions were made by a limited number of people. In one interview, almost all responses were made by two people. Spokespersons generally were members of the Resistance Committees, the system of grassroots political leadership in Uganda, and their authority may have prevented open discussion or questioning of the views they presented.

Very little information was presented by women. Women were either absent, as in the case of both interviews with Bahima communities, or peripheral to the main group. Only once or twice were responses by women. Thus, the RRA survey results show a heavy male bias.

The method of using an RRA team questioner, or "front person," enabled a limited relationship between the team and the group; however, it made it difficult for other team members to identify problematic areas and set further questions to probe and resolve unexplained points. As a consequence, information presented by the group was accepted largely at face value and recorded verbatim by the RRA team.

II. RESULTS

A. GENERAL OBSERVATIONS AND COMMUNITY PROFILES

The six communities visited are highly heterogeneous, typifying the variety of lifestyles, economies, and histories of the people in the Lake Mbuho area. In all cases, however, there is an observable lack of basic infrastructure such as schools, health centres, and permanent housing. Road access is poor in all cases.

The majority of the residents in the area surveyed are members of the Banyankole people. These people may be divided into two groups in relation to their dominant economic activity: Beiru traditionally are settled subsistence cultivators; Bahima traditionally are pastoralist cattle herders.

Today, there is some mixing in the economic activities of these two groups, and probably this always has been the case. Wealthy Beiru are quite likely to own cattle, while Bahima increasingly are turning to small-scale agriculture to supplement their cattle-herding activities.

Other ethnic groups in the area surveyed are Baganda migrants from the neighbouring district, Banyarwanda cattle herders who may be refugees from Rwanda or Ugandan citizens (there is great controversy over the position of the Banyarwanda within Ugandan society), and a variety of other peoples working as traders, fishers, etc.

KANYARYERU RESETTLEMENT SCHEME (KRS)

KRS is not a typical community. It comprises ethnic Bahima of the Banyankole people resettled by the government as refugees from Luwero. It is unknown when these Bahima left their traditional lands to settle in Luwero or what prompted the migration. Some people suggest that the migration was undertaken 40 or 50 years ago. During the National Resistance Army's (NRA) war against the former Obote government, the people of the infamous Luwero Triangle suffered badly, partly as a result of their support for the NRA. By the end of the war the people had lost most of their cattle, many people had been killed, and their society badly disrupted.

To assist these people, and thank them for their support during the war, the NRA Government resettled the Bahima community from Luwero to their current location in Kanyaryeru. The community was allocated 30 square miles of the 150 square miles degazetted from LMNP. The refugees began arriving in 1986 though the main settlement occurred in March 1987.

Though traditionally cattle herders, the residents of KRS, having lost most of their cattle, have been forced to adopt the cultivation of crops to maintain themselves. Thus, KRS may be viewed as a mixed farming area. The scheme was originally intended to house 6,000 households; however, fewer than 3,000 are resident there today.

The southern boundary of KRS forms the **northwestern** boundary of LMNP, and KRS is an important neighbour to the park.

RWAMUHUKU

Rwamuhuku is a small community located **on the northern** boundary of LMNP. The land of the community forms a wedge that cuts into the **central area** of the park from the north (see map). When LMNP was reduced in size by 60%, the selection of this boundary by the former Warden-in-Charge (in consultation with local leaders and the Lake Mburo Task Force) was to ensure that as much of the settled and farmed land as possible was excluded from the park while retaining a boundary that followed topographical features. A small part of the Rwamuhuku community, living in the Minekye Valley, remains within the new boundaries of the park. The Rwamuhuku area has had permanent settlement for many years. Maps from 1954 show settlement and scattered cultivation.

Rwamuhuku is largely a farming community, the majority of members being Beiru of the Banyankole people. Some of the more wealthy members of the Beiru community own cattle but retain cultivation as their main activity. Some members of the community are Bahima and some have begun to cultivate, mainly matooke bananas. Fishing on Lake Mburo used to be carried out by residents of Rwamuhuku but has been terminated by park authorities.

KAKAGATE

Like Rwamuhuku, Kakagate is situated very close to the park's northern boundary within the wedge that was carved into the park. This area also has been settled at least from 1954 but until recently was a much smaller and less developed community than Rwamuhuku. Many of the residents today are recent arrivals from other parts of Mbarara District. Some members of the extended Kakagate community occupy land within the National Park in an area called Byembogo. However, these people are less closely associated with Kakagate than the residents of Minekyi are with Rwamuhuku.

The majority of Kakagate residents are Beiru but a significant minority are Bahima. The area still is relatively open compared with Rwamuhuku, with more room for cattle and thus Bahima.

BAHIMA GROUP RESIDENT IN LMNP

This community comprises pastoralist cattle keepers living a largely traditionally existence, subsisting on milk. They are referred to as "legitimate squatters" within the park. This means that they are viewed as genuinely landless people who were resident within the park area prior to 1983 when the park was gazetted. Government has pledged to find land for them and relocate them, and they have been registered for this purpose. In the meantime, they have permission to continue to occupy the park but are not allowed to cultivate or build permanent structures. Some members of the group may be **illegal squatters**, which means they entered the area after 1983. The government has made no commitment to such people.

BAHIMA GROUP RESIDENT IN NSHARA GOVERNMENT RANCH

This community is basically the same as the community described above except that this group resides on the Government Ranch. The conditions under which they are allowed to remain are the same. It may be that this community has been occupying the land relatively continuously since the creation of the ranches. When the National Park was created, the majority of the area was cleared of human settlements; however, Nshara Ranch, though it fell within the boundaries of the park, was never successfully cleared.

RWONYO FISH LANDING

This community is typical for the area surveyed for several reasons. First, its economy depends on fish taken from Lake Mburo and is thus largely a cash-based society rather than a subsistence one. Second, many of its members are not local people but come from some distance away (some of the residents, however, have come from one or other of the fishing villages that were formerly located on the shores of Lake Mburo before the creation of the National Park). Third, the community consists largely of adult men, with only a few women and children present. Fourth, there is no cultivation or livestock, as both are forbidden by park authorities.

The community is under the jurisdiction of park authorities. It does not have the status of a village and the park controls the number of people who may stay and work there. The park views the fish landing as essentially a work camp and does not accept that the people staying there have any rights to the land. It was park authorities who established the fishing landing at Rwonyo. Formerly, fishing villages were situated elsewhere on the lake. All of these communities were removed in 1983 when the park was created but returned in 1985/86 to resume fishing activities following the fall of the Obote Government. The park authorities at that time, with the support of the Lake Mburo Task Force, determined that there should be no permanent villages established in the park and decided to group all those communities engaged in fishing the lake in one place. Rwonyo was selected because it was close to the park headquarters and therefore could be closely controlled.

B. LAND TENURE

The confusion over land tenure in many of the communities interviewed mirrors the problems at the national level concerning land tenure. Respondents mentioned various types of land tenure but also mentioned that uncertainty over people's legal position was preventing them from developing their communities.

The situation concerning land tenure in areas around LMNP is perhaps especially confused and controversial. The entire area visited by the RRA team had been created a Game Reserve 1964. However, the people living in the area at the time, both cultivators and cattle herders, were allowed to remain under certain conditions and were given Game Department Permits. What this meant as far as legal land tenure is concerned is uncertain. During later periods, private individuals were given freehold land tenure to significant areas of land while others were given leasehold land tenure. A large portion of the game reserve was made into a Government Ranch. In 1983, the entire Game Reserve was gazetted as a National Park and all

forms of land tenure, whether traditional or not, were effectively terminated at that time. When the park was reduced in size in 1986, the land apparently reverted to the tenure state that applied prior to 1983.

This confusing history has led to an equally confusing present state of affairs. In the communities interviewed, the people hold several different positions.

The two Bahima communities are referred to as "squatter" communities. They have no recognised form of ownership of the lands they occupy, which is either Government Ranch, National Park, or, in other areas, private ranch. They have been given permission to remain where they are until the work of the Ranch Restructuring Board has been completed. In some cases, they pay rent to ranchers in the form of cows. Clearly, the government recognises some form of traditional land rights because it has accepted the responsibility of finding land for the Bahima squatters to compensate them for the loss of the lands taken by ranches and the National Park. The Bahima communities interviewed made no claims to own the land, nor did they make any special claims to traditional rights over the area. Indeed, it was mentioned that if individuals managed to get land titles, then the land was theirs.

The RHK community is aware that it is outside the National Park and indicated that individuals hold land through customary tenure. However, the removal of the community when the National Park was created, and the continued intention of the government to relocate some farming communities still living within the reduced area of the park, has caused people to lose confidence in customary land tenure. They believe that it is old-fashioned and wish to get land titles and fence their farms. The community is uncertain over their land tenure position and claims that this prevents them from investing in decent housing, schools, tree planting, etc.

The KKG community lies outside the park and initially sounds more certain about its land tenure position. The people of the community clearly indicated that they had inherited the land from their parents, who were given the land when they first came to the area. The land was owned under customary tenure. However, the community members concluded that they were unable to sell their land or buy more as the government prevented the sale or purchase of any land within the park, showing that there is still considerable confusion with regard to land tenure. As stated above, this community is outside the park and there are no restrictions in this area over the sale or purchase of land.

The KRS community also presents a special case. Members explained that the land remains under the government and they are uncertain about their land tenure position since they had been brought to the area as refugees. Each person was allocated one plot of land but is not permitted to sell this land or purchase more land within the Resettlement Scheme.

C. SETTLEMENT

The settlement patterns in the lands visited by the RRA team are especially complicated due to the creation of the Lake Mburo Game Reserve in 1964 and LMNP in 1983. However, some aspects of the area's settlement may be similar to other parts of Mbarara District, especially

Nyabushozi County, as the creation of **private and government ranches** during the 1970s had some of the same consequences for people **as did the creation of the park.**

Little information was gained concerning the **early settlement** of the area. Respondents in RHK said that settlers arrived in the Lake Mbuoro area during the 19th-century, attracted by the rich game hunting, fishing, and pasture land. At that time there was little cultivation.

The majority of information given concerned more recent movements. People moved into the area, most from Luwero, Bushenyi, and Bunyoro Districts or from Nyabushozi, Mpororo, and Kabura Counties within Mbarara District. When the Game Reserve was created, the people resident in the gazetted area were given permits to remain. The GRB community mentioned that when the private and government ranches were allocated by the Amin Government, Bahima were forced to migrate in search of other lands, where they became squatters or hired land. Not all the people left, however. Many were able to remain on the ranches by bribing the poorly paid ranch managers with cattle, while others occupied the Game Reserve and were thus unaffected.

In later years, corruption and lax administration of the Game Reserve allowed more people (cattle herders, cultivators, and fishers) to move into the area and join with those already there. Most of them did not own land in their former settlements, being sons sent out by their fathers to look for their own land. Others sold the land they owned or divided it among relatives. In still later years, people moved into the area, especially cattle herders displaced by the wards and civil disturbances which began with the fall of the Amin government and continued until the formation of the NRM government.

All these people were evicted in 1983 when LMNP was declared; however, most returned to their lands in 1985 when the NRM government was formed. Many people not originally resident in the area entered with the returnees to take up what was believed to be free land. Others have continued to come, taking advantage of the uncertainty of the area's status and the weakness of park management.

The KRS is given an exception. These people were settled as a result of deliberate government policy which allocated them land after they were displaced from Luwero during the last war.

D. POPULATION

Figures have been taken from the national censuses of 1969, 1980, and 1991. The population of Mbarara District grew from 450,500 in 1969 to 699,100 in 1980 to 929,600 in 1991. This represents annual growth rates of 4.1% between 1969 and 1980, and 2.8% between 1980 and 1991. Figures for Nyabushozi County show that the population declined from 77,838 in 1980 to 76,200 in 1991, which is contrary to the general trend of population growth in the district. These figures are at odds with the census carried out by the Ranch Restructuring Board which found that "squatter" households on the Ankole Ranching Scheme grew from 173 in 1989 to 746 in 1991. The difference in apparent population trend may be explained by families moving south within the county to occupy land near the road, or by families selectively moving onto the Ankole Ranching Scheme. The surprising figures certainly need to be explained.

E. ECONOMIC ACTIVITIES

1. CULTIVATION

Cultivation is the main economic activity undertaken in three of the communities interviewed: KRS, KKG, and RHK. The main crops grown are beans, bananas, maize, millet, ground nuts, sweet potatoes, soyabeans, vegetables and cassava. However, matooke, beans and maize are the most important crops because they are the least vulnerable to damage by bush pigs. Bush pigs cause extensive crop damage, to root crops in particular. Crop damage by wildlife, mainly bush pigs, but also vervets and baboons, causes farmers to concentrate their fields around their houses so they can afford them some degree of protection.

Damage to crops by wildlife appears to have a significant impact on the farming system resulting in the production of a limited variety of crops, the restriction of areas cultivated, and loss of revenue.

Agricultural surpluses are sold in Lyantonde and Mbarara—matooke, maize, and beans being particularly important in this respect. Crops also are bartered—for fish in the case of RHK, which is close to Lake Mburo, and for ghee with Bahima cattle herders.

Agricultural land is felt to be scarce in all the villages but is described as of high fertility. Individual families cultivate their own piece of land (kibanja). Availability of agricultural land is believed to have declined, and people in RHK and KKG are worried that their children will be unable to find land in the future. Communal or free land is no longer available. In the case of KRS, people believe that the scheme was not allocated sufficient land for all the refugees and that more should be provided. Falling soil fertility was not mentioned as a problem.

Farmers perceive the lack of good roads, transport, and markets for their produce as a major limitation on their economic activities. Problems of transporting agricultural surpluses means that only small local markets can be reached where the prices for commodities are low. Lack of pesticides also is seen as a problem that reduces productivity. Farmers in KKG believe that tractors would increase their yields and allow them to increase the area under cultivation.

2. LIVESTOCK

The main livestock in the communities interviewed are cattle, with few goats and sheep recorded. Chicken keeping is a minor economic activity.

Cattle keeping is the most important economic activity in the two Bahima communities, LMB and GRB. It is less significant though still important in RHK and KKG, which, though largely agricultural communities, have several Bahima members and members that are engaged in both cultivation and cattle keeping. KRS is a special case as the people are primarily cattle keepers but lost the majority of their livestock during the years of war against the Obote II Government. As a consequence, these people were obliged to turn to cultivation of crops when they were resettled.

The number of cattle kept varies greatly, both among individuals and from village to village. The Bahima cattle herders of LMB and GRB gave cattle ownership as between 5-800 per individual, a wide range. The registration of cattle by the Ranch Restructuring Board recorded individual ownership of as many as 2,000 cattle. In KRS, the given range was 5-30 heads of cattle per family, indicating their loss of livestock discussed above.

The Ranch Restructuring Board estimated a cattle population of approximately 20,000 in LMNP, which gives a stocking rate of 1/1.3ha, and 42,000 on the fifty ranches of the Ankole Ranching Scheme, which gives a stocking rate of 1/1.5ha. The stocking rate recommended by the Department of Agriculture is 1/2.0ha. Records indicate that the cattle population has increased by almost two and a half times over the last two years.

The main economic importance of cattle in the communities interviewed is for subsistence, providing milk which is the staple diet of the Bahima community. Milk is generally not sold as there is a limited local market for it and without transport it cannot be sold fresh. Ghee is sold, however; mainly to traders who are either locally based or come from Kampala.

Cattle are sold when there is a particular need for cash, such as when school fees are due or to pay for medical treatment. Cash earned from cattle sales also is invested in the herds to purchase acaricides, equipment, and veterinary drugs.

At present, cattle sales have been curtailed by the imposition of quarantine measures to control the spread of bovine pleuro-pneumonia. The quarantine has meant that cattle can no longer be driven to the regular markets for sale. People who wish to sell cattle must wait for trucks to arrive from Kampala. Prices have been reduced greatly by the limited trading opportunities, falling by over 50%. Furthermore, many people are cheated by the traders who often insist on taking the cattle on credit and may never return to pay for them.

Grazing takes place on what is viewed as communal land. In most cases this is either private ranch, government ranch, or National Park. People living around LMNP refer to the process of grazing their animals "towards the Park." There is no system of control to allocate grazing or to regulate the number of cattle grazed in a particular area. In KRS, there are plans to divide up the grazing and allocate paddocks to individuals. In RHK and KKG, some people graze cattle around their houses and fields. Others indicated that they would graze their livestock on their own land if they had it. Though grazing cattle in agricultural areas leads to some crop damage, this is a small problem compared to the damage caused by bush pigs and easy to resolve.

There is considerable concern over the perceived shortage of available land for grazing. Most of the communities complain that the land is insufficient and that the curtailment of their ability to move from area to area is causing damage to the range.

3. FISHING

Fishing is largely confined to the RFL community, though fishing for mudfish in the permanent swamps constitutes a minor economic activity in RHK and KKG.

Fishing in RFL is carried out from small one-person canoes with gill nets. The main catch comprises tilapia. Small *Haplochromis* species are taken in reasonable numbers and sun dried for sale. Some mudfish and catfish are caught.

The number of boats allowed to operate on the lake is controlled by park authorities. This is less to manage the fishery than to control the number of people living at the fish landing. At present 50 boats operate, of which 18 are operated by the park itself and 32 are privately operated. Revenues from fishing supplement the inadequate government salaries of park staff.

It should be noted that the fishers are those that own the boats, fishing gear and fishing license. They employ people called *barias* who actually perform the work of setting the nets and landing the fish. The fishers then generally process the catch for sale to the fishmongers. *Barias* are either paid a set wage or receive a proportion of the catch in payment for their work.

The majority of the catch is smoked and sold to traders or fishmongers who transport the fish by bicycle to markets in Lyantonde and Masaka, though some is sold in Mbarara. Smoking the catch is necessary to allow the fish to be sold in markets at some distance. The slow speed of bicycle transport means that fresh fish would not reach the market in a fresh state. About 10% of the catch is consumed within the village, and some is bartered locally for agricultural products and milk.

4. OTHER ECONOMIC ACTIVITIES

Occupational income is low compared to the importance of agriculture and cattle keeping. However, all communities have some people who engage in paid labour. Though local job opportunities are few, largely limited to labouring on ranches, residents of RHK mentioned that LMNP provides some jobs, mainly for labourers to make bricks, cut papyrus, work on the roads, etc. Some people find work in Sanga, the local trading centre, but most that wish to work must travel further to Mbarara or Kampala.

Remittance of earnings by migrant workers is small. Workers find it increasingly difficult to remit money in the present economic climate of low wages, high cost of living, and increasing taxation.

Brewing *tonto* and distilling *waragi* is carried out in RHK and KKG and may be important for individuals.

Trading also is important for individuals, especially the trade in ghee. Local people act as small traders of commodities such as soap and cigarettes. However, the buying power in the communities is so low that it is difficult to establish a business, especially after transport costs have been added to the cost of the commodities. Some members of the LMB community partially overcome this problem by combining funds to buy in bulk and then share the goods among themselves. Lack of capital also prevents people from going into business.

Trading is a particularly important activity in RFL. Because of its isolation within the park and the controls imposed on it by the park authorities, the community is dependent on external traders to both purchase their fish and supply them with the commodities that they need. In relation to the fishing industry, some jobs are created to provide fishers with firewood for smoking fish.

Few if any local people are involved in cattle trading, which is carried out by wealthy traders, largely from Kampala. Domination of cattle trading by outsiders has been made even more complete since imposition of the quarantine, as few if any local people are able to afford to hire lorries.

F. NATURAL RESOURCES

1. TREES

Trees are used for two main purposes in the communities interviewed: building materials and cooking fuel. Both are more important in farming communities than in the Bahima communities. The Bahima respondents explained that they use little firewood as they eat mainly milk and require little for construction for their small and simple houses.

The most commonly used wood in building is acacia which is common and gathered from the lands around the communities. Small trees generally are used to provide building poles. Larger building requirements are met by buying timber, mainly eucalyptus, from Mbarara and Lyantonde.

Cooking fuel needs largely are met by collecting dead wood. It was stressed that only dead wood was used; however, it was mentioned that if a tree is seen to be dying, it is up-rooted so that it dies rapidly.

Most of the communities interviewed collect much of their wood requirements for building and fuel within the National Park. KRS and GRB are exceptions to this as the tree cover in these areas is still high. RFL is particularly dependent on the park for its fuel requirements, having no access to trees outside. This community also has a much larger demand for fuelwood than others as they must smoke their fish.

Charcoal burning is carried out extensively in the general area as may be determined by the sacks that can be seen for sale on the main Mbarara road. Burning licenses are given out by the Resistance Councils or, in the case of KRS, by the Coordinator. It is claimed that only few licenses are awarded, though some people burn without licenses. Charcoal burning is clearly an important economic activity for some individuals though it was not indicated as being important by any of the communities interviewed.

Though not mentioned by respondents in any of the communities interviewed, ring-barking of large trees was observed, apparently to clear land for cultivation. Large trees also were observed to be felled to make cattle fences.

Despite the several uses trees are put to by the communities interviewed there was little expressed awareness of their value or of the danger of exhausting the supply. In KKG, it was mentioned that building poles are becoming scarce and that people are beginning to build in brick. This is not, however, necessarily seen as a problem as it was indicated that they are being encouraged to use bricks as wooden pole houses are considered shabby. One community recorded an understanding of the role of trees in preventing soil erosion while another reported a speech by the President in which he informed people that they should plant trees "because they bring rain."

The question of ownership of trees, closely related to the issue of tree planting, drew very difficult responses from the different communities. The people of KRS and RHK believe that the trees are owned by the government. The two Bahima communities do not believe that the people own the trees, having inherited them from previous generations.

The incidence of tree planting is also mixed. Some residents of RHK plant trees on their land as an investment, those of KKG have established a tree planting project in which each man has a plot, and even the recent arrivals of KRS are beginning to plant trees. KRS residents indicated that they had not planted trees when they first arrived because they were unsure that the land was theirs. However, they are now reassured on this point and now believe that the trees will belong to those that plant them. Neither of the Bahima communities plant trees. One respondent, resident within LMNP, when asked whether the Bahima planted trees responded, "How are we supposed to plant trees when we are not even allowed to plant crops?"

It was reported that women cannot plant trees since they do not determine household policy and are under the authority of their husbands. The exception to this is in KRS where women are reported to be allowed to plant trees.

2. SWAMPS

Use of swamps is not intensive but is important. There are seasonal swamps scattered around LMNP. During the wet seasons, they are used by some communities to provide thatching materials and may be used for catching mudfish and catfish during the wet season, which can be sold for cash. During the dry season the swamps are used for grazing; indeed, people indicated that the swamps were reserved for this purpose. They are often burnt during the dry season. Other products obtained from the seasonal swamps are materials for making milk vessels covers.

The permanent swamps fringing Lake Mbuho and the Ruizi River all lie within the National Park and thus their resources are not available for utilisation. Respondents from the cultivating communities indicated that they would use the swamps for cutting papyrus and for fishing. Cattle herders view the swamps mainly as sources of water and grazing for their cattle.

There is a general awareness of the value of swamps and no apparent desire to drain them. In terms of protection and regulation of swamps, respondents referred to the system of dry and wet season use as the traditional system of use and no other is envisaged. This traditional use includes mechanisms to manage and preserve the swamp. Certain portions of the swamps are

not cut to preserve the fisheries and the trees are left to provide shade for fish. Swamp draining is not allowed but cutting and burning are practised since the swamp vegetation grows again. It was indicated that swamps can be owned by individuals.

The swamps are clearly valuable to both cultivators and cattle keepers, the first for thatching materials and fish during the wet season, the second for water and grazing during the dry season.

3. WATER

The LMNP area has an estimated mean annual rainfall of 750-875mm. Water is a major concern for all people in the area. The main sources of water are a small number of boreholes provided by the government, which provide household water, valley dams dug by the government, which provide both household water and water for cattle, and hand-dug wells, usually made on individual personal initiative. Swamps are used until they dry. The traditional water source during the dry season for the communities interviewed was Lake Mburo, now lying within the National Park.

All communities complained about the shortage of water sources that last through the dry season and all indicated that they need more permanent water sources. Lack of water during the dry season brings herders into conflict with park authorities and with ranch managers.

Two views on dam management were expressed. The KRS community claimed that maintenance is poor and that cattle dung needs to be removed to prevent pollution and silting. The Bahima communities claim that the dams are managed. They are fenced and people driving cattle into the water are fined. Water is drawn by hand and given to cattle in mud troughs.

Only in KRS was water quality mentioned. The community expressed concern about the pollution of water and of the dams as a source of mosquitoes.

4. WILDLIFE

Little mention was made of wildlife as a resource. Indeed, only one respondent indicated that he would like to have access to game meat from the park. The two Bahima communities interviewed indicated that they were uninterested in game meat as they do not traditionally consume it. People of KKG strongly stated that they no longer were interested in consuming game meat, though this may be questionable.

G. SOIL EROSION

Evidence of soil erosion is widespread in the areas visited by the RRA team and is clear even within LMNP. The hills in many places show bare patches which are eroding.

Most of the communities interviewed are aware of soil erosion but generally indicate that it occurs outside their own area. They also claim to be ignorant of its causes. None of the communities record any traditional mechanisms for controlling soil erosion, or they claim that it is not a problem and therefore there is no need to control it.

This was not, however, a universal response. The LMB community claim that there is no soil erosion and never has been. As one respondent stated, "After the dry season, the rains come and the grass grows again." On the other hand the farmers of RHK believe there is soil erosion in their area and express the belief that it is caused by heavy rain and reduces soil fertility. They claim to attempt to control erosion by digging ditches to direct rain water away from the fields and by planting elephant grass bunds. These methods were described as traditional methods. The GRB community expressed awareness of soil erosion and believe that it is caused by overgrazing and heavy rains. However, they do not necessarily believe that it is a problem; to quote a respondent, "If erosion comes you move to another place." Another respondent, when asked if he would reduce cattle numbers to control erosion, said that he could not do this as the land was not his but belonged to the government.

H. RANGE DETERIORATION

Though there is some debate concerning just how damaging to range condition burning is, it is generally agreed that annual or twice annual burning can cause range deterioration. Burning is against Uganda's soil conservation laws. Burning of pasture land in the dry seasons to get fresh grass to sprout to see the cattle through to the next rainy season is the main pasture management practice employed in the area. The range generally is burned as a practice by any of the communities interviewed.

Extensive areas were observed by the RRA team to be invaded by *Cymbopogon* (lemon grass), a species of grass that is unpalatable and fire resistant. It is generally believed that the spread of *Cymbopogon* indicates range deterioration. Once established, *Cymbopogon* may only be controlled by digging out the tussocks by hand. Its occurrence causes significant reductions in productivity by out-competing other palatable grasses. The spread of *Cymbopogon* and its negative consequences were not mentioned as a problem by any of the communities interviewed.

I. ATTITUDES TOWARDS LMNP

All of the communities interviewed have the same basic understanding of what the park was created to do. All groups in one way or another indicate that the park was created to keep wild animals, which belonged to the government, though some respondents indicated an understanding that the park was created to keep nature and natural things in general.

There is little understanding of why the government should wish to keep wild animals and, in general, only negative views are held about wild animal, as expressed by the following statements.

"People are killed by wild animals but people are not allowed to kill the wild animals."

"What is the use of wild animals? Buffaloes give no milk, they bring ticks, eat our salt and can kill people."

“Bush pigs eat our crops during the night. They are nocturnal so the tourists don’t see them, so why should the government protect them.”

Only one respondent made a positive statement about wild animals and the National Park. An old man from RFL said: “I would like to see the park remain after I die. Increasing human populations have chased the wild animals away in many other places. I would like my children to be able to see wild animals.”

Another resident of RFL seemed to indicate that it was the people who had seen the long-term value of the park and caused it to be created. It did not seem, however, that he identified with this in any way.

These were the only comments that placed the park and wildlife in a long-term context and indicated an understanding of the progressive nature of human population expansion and the consequences for natural resources including wildlife.

If attitudes towards wildlife are pretty unequivocal, attitudes towards the park as an institution are equally strong and in general, equally negative. Though some respondents are aware of the park’s role in attracting tourists and earning revenue, this does not necessarily lead to a more positive attitude. For example:

“The park earns money for the government but not for the people.”

Others are openly antagonistic towards the park.

“The subject of the park is very painful to us. We don’t want to talk about it.”

“When we visit the Warden, he does not give us milk or meat. We would like to have him imprisoned.”

The main complaints against the park concern two subjects. The first is wildlife. As indicated above, wildlife is viewed as unproductive and destructive. All of the cultivator communities discussed at length the damage by bush pigs to crops.

“Bush pigs destroy our crops and we don’t have enough land. Is the wildlife more important than our crops?”

Most communities indicated concern over the dangers to human life caused by wildlife. It is generally felt that the government should protect the people against wildlife by fencing in the park.

The second complaint concerns the question of access to resources.

“We should use the resources in the park but we are chased away.”

The LMB community complained about the park authorities' attempt to limit their grazing by banning their cattle from grazing near the park roads. They wanted to be allowed to move freely to access the grazing resource.

Both the communities resident within the park, LMB and RFL generally are unhappy about the control that the park has over their lives and activities. For the fishers of RFL, a serious problem is that they are not allowed to have their families living with them, which is strongly resented. Both resident communities expressed a strong desire to be allowed to build permanent structures (this is banned) and to be allowed to remain within the park.

“We stay in the bush here like animals.”

“The park should allow us to build houses, plant matooke, and have markets here. The park should allow us to stay.”

“If we were given our own place here we could build our own infrastructure but it is not allowed at present.”

Probably the most solely contested resource is water. The park ties up several of the area's permanent water sources and most of the communities interviewed expressed concern and resentment about this. One community suggested that, as the park had the best land with the water, the community members should be compensated or be allowed to swap their land for that of the park. The same community suggested that water should be pumped from the park for its use.

“We would like to have access to Lake Mbuho during the dry season.”

The question of land also was much discussed by all communities. KRS respondents seem especially concerned about the shortage of land, perhaps because they know that the community has been allocated a specified area by government. Most communities expressed their desire to use the land within the park though no communities suggested doing away with it. KKG suggested that the park be divided into two halves and the half with the lakes given to the people.

The manner in which the park was created was discussed by several respondents and it is clear that much of the current resentment towards the park stems from this event, which is still very much in the memory of the people.

“Rwakasisi created the National Park and chased people away, and the government never consulted us!”

“When the people were chased away they developed a hatred of the park, especially the cultivators and the cattle herders.”

There is clearly some recognition of the fact that the park could contribute to the local economy. RHK suggested that 10% of the revenue be allocated to local communities to fund their development, while other communities suggested that the park could assist by building infrastructure. The comments did not suggest an appreciation of just how small the park's financial resources are, and people suggested that the park should purchase drugs for their cattle, build dipping tanks, and provide schools, clinics, and markets. That the park has not contributed in any observable way to the local communities has result in some resentment.

“The park is of no use to us. They should help.... They won't help the sick and you have to pay to use a park vehicle. The people help to build schools around the park but the park does not contribute towards this.”

There is a realisation within the cultivator communities that the park could contribute economically to their community. Respondents in both RHK and KKG suggested that they could grow food to sell to the park staff. Nobody, however, suggested that they could sell food, or anything else, to tourists.

A particular subject of concern is the way in which the park boundary was drawn. The fields of some people of KKG have been included within the park and people want to know what will happen as a result. They requested that the people be allowed to retain their fields and that the park boundary should be altered.

Communication between the park and the people is perceived as poor. Though most communities interviewed are aware that there are meetings between the park authorities and local leaders, they characterised communications as poor since all their requests and proposals are turned down.

“We try to communicate with the park authorities but our requests are always turned down.”

The problem of communication, however, is not limited to the park authorities but seems to be a general problem for the communities when dealing with the government. To quote a resident of KRS:

“The Minister comes, we clap and he goes.”

III. DISCUSSION

The findings of the RRA presented in this paper must be viewed as preliminary, and one should be cautious about drawing conclusions. The primary objective of the survey was to give LMCCP a general picture of the communities living in and around LMNP so that a more detailed questionnaire to be designed. However, the information collected during the RRA does allow some tentative conclusions to be drawn.

A. LAND TENURE

The question of land tenure is an important one for the communities surrounding LMNP. This is so for both the cultivator communities and the cattle-keeper communities, though their situations are very different.

The cultivator communities interviewed are uncertain of their legal land tenure status. This is partly due to the confusion concerning land tenure in Uganda as a whole and partly due to the changes brought about by the park's creation. Communities were removed from their lands by government in 1983, some of which had been continuously occupied since at least 1954. They were then given government permission to return. However, some members of the larger community are still in a position where they are being told they must vacate their lands within the park. This has reduced people's confidence in their traditional land tenure systems and many would wish to get legal, documented title to their lands. It would be in the park's interest to help resolve the land tenure issue for these communities by dealing as rapidly as possible with those farming communities still within the park, either by degazetting the areas or resettling the people, and then helping to establish unequivocally that the communities surrounding the park are present legally and that the park has no intention or power to remove them.

This will be valuable to the park in two ways: it will help improve relations between the park and the local communities by clearing the air and putting the park on the people's side in this issue, and it will help to improve land use practices and reduce environmental degradation of lands around the park by giving people a firmer attachment to the land.

The cattle-keeper communities, the Bahima, have no formalised land rights. Being pastoralists, they treated land as grazing commons available to all herders. As land was enclosed by individuals or the state, the Bahima were less and less able to practice their traditional way of life. Today they are seen as landless people or "squatters," though they are occupying land that was traditionally their own. As long as the Bahima remain in this state, they will continue to occupy the National Park, having nowhere else to go, and continue to over-exploit the grazing resources of both the park and the surrounding ranches. Until this difficult and highly sensitive question is resolved, it will be difficult to engage in any sound management of the park. The park authorities should maintain pressure on government to ensure that progress is made towards a resolution of the problem through the activities of the Ranch Restructuring Board. The problem has been in existence since 1986 when it was reviewed by the Lake Mburo Task force. A determined effort will be necessary for progress to be made.

B. SETTLEMENT AND POPULATION

Settlement patterns in the areas around the park have been complicated by the creation and subsequent degazetting of 60% of the park. The apparent freeing up of 150 square miles of land led to an influx of people, both cattle herders and cultivators, to the area. A special case was the creation of the Kanyaryeru Resettlement Scheme, which in itself caused nearly fifty households to be removed from their traditionally held land.

The government's announcement that landless people occupying the ranches of the Ankole Ranching Scheme and the National Park would be allocated land also seems to have resulted in a dramatic increase in people settling in the area. This would seem to have led to a severe land shortage in the area, accelerated environmental degradation and increased pressure on the land. However, it is interesting to note that the Government Census figures published in 1991 indicate that the population of Nyabushozi County, which contains both the park and the ranches, has fallen slightly in the last ten years, while the population for the entire district has increased by 2.8%. These contradictions need to be explained.

C. ECONOMIC ACTIVITIES

The economy of both the cultivators and the cattle keepers is largely subsistence, and this dominates the area around the National Park. Wage earning opportunities are few, and the potential for marketing surplus products are poor. This indicates that there is a role for the project to play in stimulating the cash economy.

The economic system of the cultivators depends on permanent fields and may thus be viewed as largely stable. The traditional system of the Bahima depends on free movement of cattle over large areas. This is no longer possible due to the subdivision of the land. Though the Bahima generally are referred to as nomadic, they are in fact now settled by force of circumstances. However, they have not adapted their livestock and range management methods to account for this change. A result is increasing degradation of the rangeland and reduced standard of living of the people. The current quarantine has aggravated both these effects. Some Bahima have begun to cultivate small farms of matooke. Whether this is a response to the changing circumstances or because they have been led to believe that the government will give them the land if they cultivate is uncertain.

D. NATURAL RESOURCES

Though the survey clearly showed how dependent the communities are on natural resources for many aspects of their economies, there did not appear to be a great appreciation of the value of these resources. However, the strong complaints levelled against the park for preventing access to natural resources indicates their importance. The resources most often mentioned in this respect were water, followed by grazing land, and trees. Medicinal plants occasionally were mentioned. Some resources, such as honey or papyrus, were not mentioned at all, suggesting that they are not important. Wildlife as a source of meat was mentioned, in general to establish that people did not eat the meat, though once to indicate that the people would like to have access to game meat.

E. SOIL EROSION AND RANGE DEGRADATION

Though there were signs of serious habitat degradation in all areas visited by the RRA team, there was little appreciation of how serious it was in the communities interviewed. Although high and middle level local leaders seem to be very concerned over the issue, the message has not yet reached the ordinary members of the community to any appreciable extent. This is serious for the District as a whole and for the park in particular, which is sure to come under more pressure as resources around the park are degraded and productivity reduces.

F. ATTITUDES TOWARDS THE PARK

The attitudes expressed towards the park and wildlife in general were almost universally negative. This gives some indication of the scope of the problem that the park has to face, despite the fact that the last three park wardens have expended much time and energy trying to improve the situation.

Part of the problem would seem to be the result of the park's history and the treatment that the people suffered at the hands of the park. The very poverty of the people and their undeveloped state is attributed to the creation of the park in 1983, and it is clear that this great disturbance must have had an effect (though whether the communities are significantly poorer and less developed than other rural communities in the District would have to be verified).

Two other very real factors, however, seem to be influencing the attitudes of the local communities—one largely affects cultivators and the other affects cattle herders.

The first factor is the destruction of crops by bush pigs. This is a very real phenomenon and would appear to cause significant economic losses to farmers as well as restricting the land they can use and the crops they can plant. That in many cases the bush pigs do not come out of the park but are resident outside does not make people look more kindly on the park. The animals, being wild animals, are viewed as belonging to the government and directly associated with the park. However, it must be recognised that in many cases, the pigs do come from the park.

Anything that the park could do to reduce the problems caused by bush pigs would contribute greatly towards improved relations. However, it should be noted that the problem of bush pigs is a continental one and people have struggled counter bush pigs with little success.

The second major issue for local people is the question of access to water. Though this is a particular problem for the cattle keepers, the issue has assumed such a high profile and has become so politicised that it was discussed at length during each interview. Communities believe that the National Park denies them access to the permanent water source of Lake Mburo and the minor lakes that are essential for them to water their herds during the dry season. Though there may be arguments as to how real are the problems caused by the National Park with respect to the water issue, it is certain that the problem is perceived by local communities as extremely important. As such, the issue becomes central to the question of improving relations between the park and local communities and will have to be addressed carefully by park authorities.