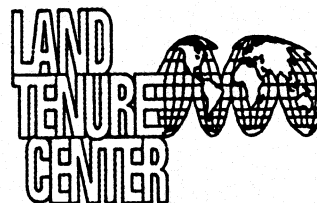




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REPORT ON THE RAPID RURAL APPRAISAL FOR THE KIBALE FOREST

by

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and

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Clark University, Massachusetts

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

Research Paper 4

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

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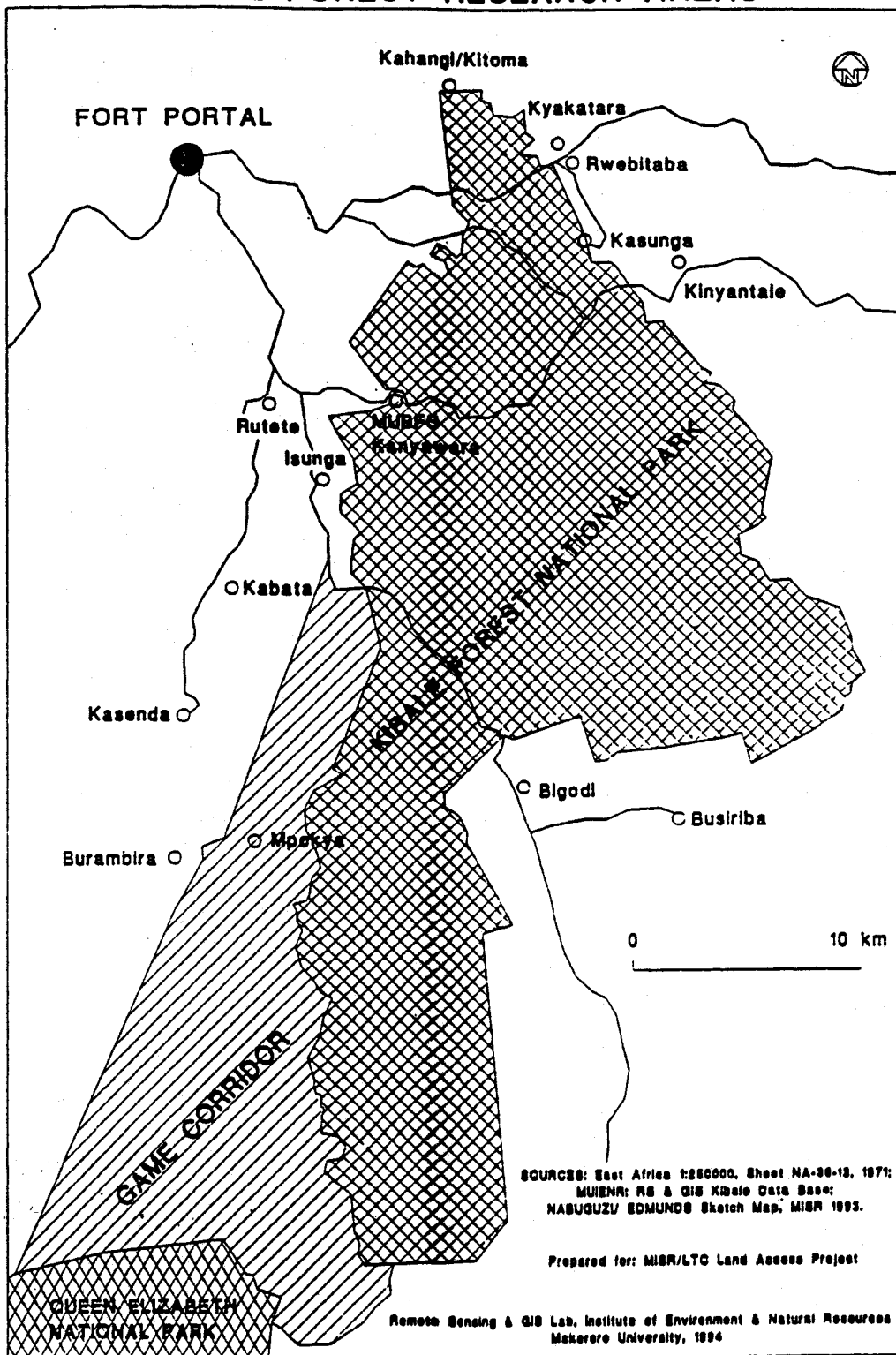
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* * *

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KIBALE FOREST RESEARCH AREAS



I. INTRODUCTION

A. OBJECTIVES

The rapid rural appraisal (RRA) exercise had four objectives:

1. To investigate the extent to which socioeconomic activities are affected by proximity to the forest reserve and the game corridor.
2. To investigate natural resource availability, use, and control in the area.
3. To investigate land use forms, rights, and management in areas surrounding the protected area.
4. To find out attitudes towards conservation and towards local management of resources from the protected area.

B. THE RRA TEAM

An interdisciplinary research team was assembled to carry out the exercise consisting of a socioeconomist, a graduate student in geography interested in resource management issues, a graduate student in forestry interested in non-timber forest products, a research assistant, and interpreters.

C. METHODOLOGY

The information for this report was gathered from a series of nine group interviews conducted over the period March 12-16, 1993. Interviews were conducted in nine Resistance Committees (RC) covering all geographical areas surrounding the game reserve in Kibale Forest National Park (see map). Interviews generally lasted 2 to 3 hours and were conducted with groups of 20 to 100 people gathered by representatives of the village or parish RCs where the interviews took place.

A variety of communities lived within these RCs: immigrants, indigenous Batoro, tea plantation labourers, independent farmers, etc. The RRA group interviews emphasised various academic and policy issues such as tensions among groups, strategies of local people, understanding how various groups perceive and use the forest, the role of the forest resources in the livelihoods of peoples living in and near the game reserve, and the rules and norms that govern access to and control over property in the buffer zone. Tensions within local communities over the use of forest resources, rights, responsibilities, and interests regarding forest use in their variation according to age, wealth, ethnicity, and gender were all examined. Discussion and some degree of debate was encouraged on all these themes. Also included in the discussions were attempts to assess the means and level of adaptation of immigrant communities to the reserve area.

There were several problems related to this method of gathering information. The short time frame in which the research was to be conducted truncated some of the discussions, limiting the number of follow-up or clarifying questions that might have been asked. The busy schedule also meant that

there was no opportunity to make field observations to check our understanding of the information we received from interviewees.

There are important sources of bias in information gathered in this way. First, and perhaps foremost, none of the members of the research team was native to the area. Though several of us spoke Rukiga and/or Rutoro as a second language, the possibility that we have misinterpreted information is strong.

Second, the selection of villages for the study was neither random nor based on a carefully laid out theoretical framework. The research team instead relied on the advice of members of the Forest Department and the MUBFS for the selection of most of the research sites. While some attempt was made to cover a variety of issues and geographic areas around the reserve, we tended to focus on villages that were already known to the research community. Moreover, the interviews were, for the most part, unannounced and conducted in the late morning and mid-afternoon hours. Those who were available to speak with us may not have been representative of the community as a whole. Often, the groups were dominated by men, many of whom were older. On several occasions, those with other work to do had to leave interviews early.

Finally, given the politically-charged nature of land use around the Kibale Reserve, and the number of earlier and on-going research projects in the same area, interviewees might be expected to frame their responses quite carefully in the hopes of advancing their interests through our work. While this is not necessarily a bad thing, and perhaps unavoidable, the results should be interpreted with this in mind.

Several steps were taken to partially address these shortcomings. Though we came with a specific set of questions and categories of analysis, to which we more or less adhered, the use of mapping exercises and historical transects afforded the communities interviewed some opportunity to develop their own framework for interpreting their situations. We also kept at least two sets of relatively detailed notes for each interview, which provided an additional check of our understanding of issues important to the community. In summarising these interviews, we discussed contradictions and inconsistencies among the notes and arrived at some measure of consensus as to how the information should be recorded, often recording the contradictions themselves. In order to limit some of the bias specifically related to our sampling procedure and to interview fatigue, we selected at least 4 sites (Burambira, Isunga, Kabata, and Kinyantale) which, to our knowledge, had not been repeatedly visited by members of the Field Station staff or other researchers.

The gender bias in our research was mitigated by the inclusion of 1 interview attended only by women (Bigodi), and 2 other interviews in which all respondents were women (Kyakataru and Kanyawara). (In these latter cases, however, male interviewers were present.) In other interviews, in which women were represented in small numbers, we also tried to direct questions specifically to them. Though the presence of the men surely had an influence on women's responses, we occasionally found women who were willing to openly contradict the statements of men. More generally, there were many occasions in which a dialogue between one "front person" of the research team and one or two vocal members of the village developed. We tried to avoid this situation by designating one member of the team to pay attention to group dynamics, pointing out

dissenters among the group being interviewed and specifically addressing questions away from village leaders periodically. We also tried to pay attention to our own group dynamics by dividing the responsibility for asking questions among several members of the research team. This division was loosely based on subject matter, though follow up questions on any topic were encouraged by other members of the team. Finally, starting the interview with the mapping exercises and historical transects generally had the effect of putting people at ease and involving a greater number of village residents in the interview process.

In spite of these efforts, the results of the research is only suggestive of further questions to be asked in a more intensive research project.

II. RESULTS

A. GROUP PROFILES

Group profiles highlight the issues of particular importance to each of the groups with which the authors met. Though far from exhaustive, they provide a rough impression of how local people want to portray their communities. Following the group profiles, the substantive issues will be discussed.

1. ISUNGA

Isunga is located near the western edge of the Kibale Forest Reserve and Game Corridor, approximately 25 kilometers from Fort Portal. According to the residents with whom we spoke, small-scale agriculture is the dominant economic activity of the village, with an "average" household cultivating 1 and 1/2 acres of public land (land for which they had no lease). Few animals are kept, and there are no large farms mentioned in discussions or included in the mapping exercise. Some residents also work on the nearby tea estate plucking tea, supplementing income earned from modest sales of surplus food crops. There is a lake nearby, and some swamp lands that are a source of water and papyrus for handicrafts. Some forest patches also remain, which are said to be privately owned. Wood products are obtained from these and from eucalyptus and pine trees planted by village residents. Many of those whom we met were Bakiga, including some who had been evicted from the Kibale Reserve and Game Corridor in 1992. They were very reluctant to discuss the Kibale Reserve and Game Corridor with us.

Residents of Isunga highlighted several problems related to living near the forest reserve. Among the most important of these was the fear that the boundaries of the reserve might be changed, and that they would be evicted from their land once more. Residents also complained that the reserve was a source of crop-raiding monkeys and pigs. They claimed that the Forest and Game Departments provided little help in dealing with crop-raiders. A third area of concern was that they were denied access to resources which they needed from the forest. Clean water was particularly scarce in Isunga, and the reserve was seen as the nearest and cleanest source. Finally, residents also feel they have not benefited from tourism in the Kibale area. They appear to have no knowledge of the scale or the use of tourist revenues and would like to have some of the money made available for local development programs.

In spite of these concerns, Isunga residents expressed an interest in protecting the forest. When asked what role residents could play in managing forest resources, the respondents seemed unsure as to whether any local institution, including the RC or elders, could effectively control forest use on their own. They remained interested, however, in helping to organise some local forest use.

2. BURAMBIRA/KASENDA

Burambira is located on the western edge of the game corridor, about 20 minutes drive southeast of the Kasenda School for Orphans. Agriculture is said to be the most important activity, with a heavy reliance on such annual crops as maize, beans, and groundnuts. There is a small number of livestock in the area and some handicraft production, especially among the women. Few other economic

opportunities appear to exist in the community. Forest patches are said to be privately owned, though few locals have household titles. One man in particular controls a very large bit of forested land, as well as one of the lakes in the area. Some fuelwood is obtained for free there, but fuelwood and poles are also sold. There is a significant fuel shortage, and many women now burn grass when cooking. Grazing and swamp land are also in short supply. A large number of people, many of whom are women, have no access to land of any kind and work as casual labourers. Most of the people with whom we spoke are Bakiga or Bahororo. Some experienced eviction in 1971, 1983, and again in 1992.

People in Burambira are very worried that the boundary of the game corridor will be changed again. Many suggested that they do not plant perennial crops for fear that they may have no opportunity to harvest them. Others complained about the loss of grazing land and access to papyrus in the swamps. These resources provided important products for their livelihoods. Crop raiding was also a significant problem, particularly from baboons and monkeys.

Residents have responded to the evictions by starting to grow some trees for their own fuelwood and timber needs, though they seemed to indicate that the insecurity of land tenure may act as a drag on this process. Casual labour at wages of 400 shillings a day appears to be the only alternative available to many who have lost their land. All residents complain that they have received little help from any government agency in addressing their problems. If given access to the game corridor, they doubt if the RC system could control use; the needs are too great.

3. KANYAWARA

Women from a number of villages along the Fort Portal-Kamwenge and Fort Portal-Kampala roads make up the Kanyawara Women's Group. The group has been organized, in part, by Ms. M. Steenbeek of the Biological Field Station for tree planting, gardening, handicraft production, environmental education, and nonformal education for women. Regular meetings are held at the Field Station at which 50 or more women discuss the group's activities.

Most of the women suggested that agriculture was their principal activity, though about an eighth of the women had family members working as employees of the Field Station. Some women work as labourers, others have small businesses or brew beer, and many make handicrafts as a source of household income. The women said that many people, both men and women, borrowed land and repaid in food; also, in contrast with many other groups, they said that women could own land, either by buying it or inheriting it from their husbands.

The women spent a considerable amount of time discussing trees as well as land. They claimed that they leave sections of natural forest in their communities, though they cut down "bad" trees, such as those that do not "bring water", and replace them with "good" trees that bring water or improve soil fertility. They even divided plots of land according to the species of tree that they want to plant.

The members of the women's group discussed a number of problems associated with living near the forest reserve. Crop raiding was among the most important of these, and suggestions were made that a fence should be built around the forest or pesticides used to deter the animals from eating the crops. Some also argued that they should be allowed to trap animals that come out of the reserve.

The loss of access to resources was also mentioned, particularly poles and firewood, which must now be purchased. Finally, many women spoke of the effects of the reserve on land use. Some women complained that they could not expand their gardens. Others felt the trees drained their soil of water and prevented a second season of cultivation. A few women complained that the Forest Department had planted trees on their land without permission.

Most women seemed to believe that they received few benefits from tourism, as few of their handicrafts are sold. However, many expressed interest in the tree planting, vegetable gardening, and educational activities that have been supported by the Field Station.

4. KYAKATARA

Kyakatara is located about 20 minutes drive from Fort Portal on the Fort Portal-Kampala road. The group at Kyakatara also represented women from a number of villages along the northeast side of the Kibale Forest Reserve. The group came together to offer material and technical support for a number of self-help projects in which its members were involved. The Catholic church in the area provides some funding for these projects, while other sources of support are actively being sought. The group made special mention of the number of orphans in the area that they are caring for and asked for assistance in this matter. Agriculture is the most important economic activity in the area according to the women, but many people also engage in trade. As a group, women are involved in handicraft production to earn income. Many women maintained that they controlled the income from the crops they grow, which they then used for household expenses. Men were seen to contribute little work and to spend their money on drinking. There was some disagreement as to whether women could own land or plant trees, reflecting the ambiguity we have found elsewhere concerning these issues. In contrast to some other areas, swamps were said to be privately owned, and many of the products that the women obtain from the swamps, such as sand and reeds, are sold. The women of the Kyakatara group expressed a keen interest in obtaining a variety of resources from the forest, including firewood, timber, spear grass, charcoal, passion fruit, poles, medicinal plants, and craft materials. Pasture in grasslands, land for cultivation, and game meat were also included as resources they need from the forest. They believe some of the forest animals should be killed and that there are presently too many that raid their crops. Although most thought that the forest should be protected for fresh air and oxygen, some were concerned that the forest harboured flies and mosquitoes that caused fever.

The women said that they no longer go to the forest, because it belongs to the government. They complained that they had seen no benefits from tourism. They would like to see some of the tourist revenues used to support projects in their area.

5. KABATA

Kabata is located near Lake Lyantonde on the road passing through Rutete from Fort Portal. There is a farmers' cooperative that was formed in 1990 to try to solve some of the area's problems of poverty and isolation. Unlike the other groups visited, they had received considerable help from the government in establishing their cooperative and in stocking Lake Lyantonde with fish. While the group was initially a savings and credit society, it now has a number of resource management

projects underway, including the protection of Lake Lyantonde and its fish, a two acre demonstration farm, and some tree planting.

6. KINYANTALE

Kinyantale is situated north of the forest reserve. The most important activity in the locality is work on the government-owned tea estates. Some individuals also own tea plantations. Apart from tea, farmers grow foodcrops for sale but face serious problems in marketing their produce. Their crops also suffer from diseases like cassava mosaic. While some farmers have coffee *shambas*, wild coffee is also harvested. Grazing land does not seem to be a big problem. Some of the cows graze in tea plantations, although this is denied by the residents. There are some local activities by NGOs due to the proximity of an important church-based community organization. This area is multi-ethnic because different groups were attracted here by work on the tea plantations. The area also reported early Nubian immigrants recruited by the colonialist Emin Pasha in his crusade from southern Sudan into northern Uganda. One regiment was eventually settled in Toro. Some families in the community were threatened by eviction by people who had obtained leases over the land in which they had lived for a long time. The area was interesting to visit as there is very little influence on this community by environmental-related groups in Kibale, tourist organizations, or the biological field station research programs.

7. RWEBITABA

Rwebitaba is also a tea estate-dominated community along the Fort Portal-Kampala Road north of the forest reserve. Most workers live in camps and have unique problems facing them as landless workers entirely dependent on the tea estate for their livelihood. Their dependence is reinforced by several mechanisms including meagre wages, close control of the harvest of resources neighbouring the estate, and residence in a closed community. There is no clearly defined pattern of industrial conflict resolution and no unionisation of workers. The Ministry of Labour controls the process of dispute settlement, and it is heavily biased in favour of management. The community was interesting to interview for two reasons. First, it is often agreed that tea picking is an alternative economic activity to small-scale cultivation; by expanding tea production, local dependence on the forest could be reduced. Low wages, however, seemed to undermine the industry's potential to reduce local pressure on forest resources. Second, tea is thought to be an effective buffer against crop-raiding animals. While this claim may be better supported by local experience, it is not listed as an important advantage by any of the groups we met in the Kibale area.

8. BUSIRIBA

Busiriba was one of the areas most affected by land pressure in the communities visited. It is situated at the southern edge of the forest. Forest patches in this area have long disappeared. There is lack of pasture and disputes related to grazing land are frequent. Attempts to plant trees are greatly constrained by scarcity of land. Swamps are being reclaimed for cultivation and are decreasing in size and number. Some people have left the area due to land pressure. Water is very scarce and sources intermittent.

Paradoxically, Busiriba was also one of the areas where people seemed to be doing well, comparable to Bigodi in this regard. This is probably because it is a market centre serving most of

the neighbouring villages at the southern edge of the forest reserve. Farmers here grow and sell a variety of foodcrops, though markets are few and often far away. Traders buy foodcrops directly from people's gardens and houses at very low prices as the farmers have no means of their own to transport this foodstuff to markets where they could fetch a higher price. They also have cattle which they exploit commercially. The community is building a dispensary with modest assistance from a foreign NGO.

Busiriba was interesting because of its location at the southern edges of the forest and game reserve. It is hemmed in by the forest reserve to its north and east and the game corridor to its west. With little room for expansion, we expected strong resistance to the protection of Kibale Forest but found no extraordinary level of hostility. Busiriba is also close to Bigodi. Visiting this community was therefore useful in measuring the extent of the impact of tourism within the area.

9. BIGODI

Bigodi is the most successful of the communities visited. It is also an old trading centre. The major economic activities in the area were agriculture, shop-keeping, sale of timber, local beer, and project-specific business.

One interesting local project is based on attracting the increasing number of ecotourists visiting Uganda. Trails for viewing birds and primates have been cleared in the nearby swamps using locally mobilised funds. The returns from tourists and researchers help in maintaining schools and a dispensary. There are also fish, bee, and brickmaking projects. Women have handicraft groups and a Mother's Union.

The Bigodi residents we spoke with have benefited greatly from tourism and are anxious to expand it through the provision of transport in the area. The number of restaurants and lodges are increasing as a result of the increasing number of tourists. Many people here are also employed by the neighbouring tourist camp. They say their strategic position between the Kibale Forest and Game corridor on one side and Queen Elizabeth Game Park on the other could be exploited if transport were made available.

Bigodi's proximity to a tourist camp, its location along an important route in the southeastern side of the forest along the Kamwenge-Fort Portal road made it an interesting community to visit.

Rights over common property resources are changing. There are disputes over grazing land on one of the hills outside the trading centre where some individuals have reportedly obtained title to the land and are closing access to it. Rights to swamps are also changing. Historically, those whose land lies adjacent to a swamp have special rights to the swamp; others in the village have more general rights, such as to collect water. There are more swamps, however, that have private owners, and swamps here are also disappearing.

III. LAND TENURE

In each of the nine areas we visited, the vast majority of people lived on public land, locally known as *kalandalanda*. Although most have no official title, individual holdings are marked and recognised by local authorities. Only a few of the wealthiest residents have leasehold titles.

All the communities indicated there was land pressure. On average, there are 1-3 acres for a household of about ten people. Only at Kabata and Bigodi was the land situation reported to be less serious, with the average acreage being 4 to 5 acres per family. In Bigodi, some individual families owned up to 50 acres. Recent evictions put further pressure on the land as people came to settle in the communities a little further from the game reserve boundary. The sale or lending land to these new individuals has led to an increasing subdivision of the land.

There were various local arrangements to gain access to land. These included sharing land, in particular with relatives evicted from the forest reserve or the game corridor. Cases of land borrowing were common in all communities. Some people borrowed land and paid a "gift" or "prize" to the owner in cash or in the form of some portion of the harvest. Few women owned land. The few who did bought it from relatives or neighbours or inherited it from their husbands. Men and women without land also worked as casual labourers. Many women, mostly those who were evicted from the corridor and have no land, work as casual labourers on other people's farms, getting 400/= per day.

A. LAND BUYING

Local residents say that when people first moved into the area, land was often obtained freely, and with the blessing of local administrators. Though some people acquired leases on that land, most could not because they didn't have the money to survey their land, as required in obtaining a lease. Some residents told us that those without title normally can't sell the land; it was their understanding of the law that land which is not surveyed, and therefore not leased, should not be sold.

On public land, however, there were at least two other forms of land acquisition recognised by local people. Many put faith in historical claims to the land based on inheritance from a father or grandfather. They also had semi-official land markets which were the basis of some claims. In order to buy land, the people involved the RCs and the local sub-county chief. Anyone, man or woman, who paid a fee of 20,000/= to these local chiefs could buy land. Ten percent of the sales tax is said to go to the government, five percent to the subcounty, and the rest to the RC 2 and 3 for the development of their areas. In exchange for paying the fee, the buyer obtained a receipt, which represented some sort of title, and was recognised by local administrators as an "owner". When asked how this title related to a formal leasehold title, residents responded that since the land was public land, what was sold or bought locally was not the land itself but the right to use it. Given that the government accepts tax money based on such transactions, there appears to be some official recognition of this distinction as well.

Most of the communities said they did not have community land. People whose land was located at the edge of swamps were said to have effective ownership, and most of the forests we saw were privately owned. Although in principal owners of these swamp lands or forest patches could exclude others from any use of the resources on their property, there seemed nevertheless to be considerable social pressure to allow some public access to products such as water or fuelwood. We also saw cattle and goats being grazed on roadsides and in school yards as evidence of land generally open to any member of the community.

Land spoliation is not yet widespread but is increasing. At least two communities reported cases where "big men" were trying to obtain leases for land that residents had been cultivating and, subsequently, threatening to evict them. In Kinyantale, for example, "big men" obtained a leasehold title for land already occupied to use it for livestock keeping. Long-time residents were soon prevented from cultivating this land.

IV. SETTLEMENTS

Most settlers in the nine communities are Batoro, Bakiga, Bahororo, Banyankole, and Banyarwanda. The Batoro generally are considered indigenous. The earliest immigrants mentioned were Nubians who were part of a colonial contingent posted near the forest in 1914. Bakiga, Banyankole, Bamba, and Banyarwanda then followed starting in the 1930s. Banyarwanda started coming in the 1930s to work on the tea estates, but later bought land, fleeing the sometimes harsh working conditions on the estates. This pattern, where people from the southwest were brought to estates and later settled in the surrounding areas, continued into the 1970s, when most of the estates effectively closed down.

The biggest wave of immigrants seems to have settled in the forest area between 1955 and 1968. This wave of immigration was said to be the result of an agreement between the then Secretary General of Kigezi and the Rukidi of Toro. The agreement allowed Bakiga to settle on the right side of the road from Fort Portal to Kamwenge, including areas in the game reserve. In 1968, the Forestry Department appears to have moved the boundary of the forest reserve to accommodate the immigrants around Kasenda. Many immigrants moved into the area due to land shortage and declining soil fertility in their areas of origin, especially the Bakiga. At the same time, the Banyankole experienced famine, and the Banyarwanda fled tribal wars. We were told that those who settled within the forest reserve itself were, in part, tea estate workers left without employment in the 1970s.

The immigrants of the 1950s found Batoro in the area from whom they reportedly bought land cheaply (10 shillings and some beer for a large piece of land was an often-quoted price). Those who came in later bought land from these first settlers. Some people are still moving to other places looking for bigger land and opportunities—for example towards Mwenge further north.

In most of the communities, people felt that serious encroachment on the forest first started in the 1970s. Some of Amin's officials, particularly one of the District Commissioners, seem to have encouraged this practice by themselves settling within the forest reserve.

In the 1980s, there were attempts to evict people from the game and forest reserves, but these evictions were half-hearted and not seriously enforced by government. People did not know whether they were being evicted from both the game corridor and the forest reserve, or simply the forest reserve. At the fall of the Obote regime, they went back to the protected areas. However, in the 1992 eviction, the game corridor was also included, and the evictions were reported to be much more comprehensive, systematic, and brutal. The communities most affected among those interviewed were Isunga, Kyakataru, and Busiriba (Kihoima area). People's houses were burnt and their crops cut down. Prior to the evictions, government directives had been at best confused. Some prominent government officials, lawyers, and ministers reportedly encouraged the encroachers to stay, while others told them to go.

After the eviction, some people settled within the outlying communities, away from the forest and game reserve boundaries. Others moved to far away areas like Nalweyo and Bugangaizi. Still others continued to collect food from their gardens even after eviction.

V. ECONOMIC ACTIVITIES

A. CULTIVATION

Most people in the nine communities work their small farms for both subsistence and income. Most communities grow maize, beans, groundnuts, millet, matoke, and cassava. Women do most of the work growing maize and beans. Prices for these foodcrops are, however, very low, plunging to 50/= per kg of maize, 100/= per kg of beans, and 250/= per kg of groundnuts during harvest time. Other crops grown include cabbages, onions, Irish and sweet potatoes, millet, wheat, peas, tomatoes, passion fruit, and bananas.

Most communities sell their produce in local markets like Rweihamba, Rwimbi, Busiriba, or Kyakatara. Some of the produce is also sold in Fort Portal and Kampala.

Many of the communities experienced food shortages last year (1992) due to drought. Prolonged drought in some areas was attributed to the cutting down of forests. Some communities like Kyakatara and Bigodi expressed fears that production might continue to decline due to fluctuating seasons, decreasing soil fertility, and diminishing land. Overcultivation brought on by a scarcity of land also led to declining productivity. Crops also failed in some communities due to disease. In Kinyatale, cases of diseases spoiling the crops and the land were particularly acute.

Most communities also found it difficult to hire labour because of the lack of money. Crop raiding from elephants, baboons, bush pigs, and monkeys has also affected productivity. In one community (Bigodi), an extension worker planned to start a demonstration farm that would test crops that might not be eaten by crop raiders. The crops to be tested include: wheat, soya, sunflower, cabbage, potatoes, groundnuts, and vanilla.

All the communities faced marketing problems for their foodcrops. The lack of transport was a major constraint to marketing, forcing farmers to accept the low prices offered by buyers who bought the produce directly from the villages. The evictions also affected many communities, even those that were situated far away from the game reserve boundary like Kabata, as they deprived the communities of a large number of consumers.

In one community (Kabata), farmers organised themselves into a cooperative and bought land (two acres). They work the land together and hire some labour. The cooperative land is not divided into blocks in which individuals are responsible for providing the labour; it is farmed as a group. All the crops produced on cooperative land are sold at Rweihamba and Fort Portal. These include bananas, maize, and beans.

B. LIVESTOCK

Most households in the nine communities interviewed had a few cows, goats, chickens, and some sheep. Grazing land in most of the communities was scarce. The people grazed their animals on their own land in patches around the houses. Others grazed on open land and on forest land. They also asked friends with open land, without any crops, if they could graze their animals there.

Individuals sometimes combined their cows and hired a herder who was in charge of grazing the animals.

Those with cows owned an average of three. In many cases, the cows were too few to give any milk for sale. Cows were therefore used for domestic milk needs and killed on special occasions. However, in some communities (Kinyantale, Busiriba, and Bigodi), milk and meat were sold regularly. Milk was sold at between 200/= and 300/= per half litre. Skins were also sold sometimes. When not sold, skins were used as spreads on which to dry crops. Cow dung is used for fertiliser and wall plaster.

Only a few communities had paddocks. Some dairy farming was carried out in Kyakatarata and Kinyantale. Those with farms had average herds of 30 to 40 cows. In Bigodi, there were at least seven farms. The biggest is 50 acres, the smallest is 3 acres.

Conflicts were common over crop damage by livestock and use of common grazing land. These disputes were normally solved by RCs, a role played in the past by *bataka* (elders) and *bakungu* (sub-parish chiefs). In many instances, the affected parties sought a mutual understanding in which compensation was made for crop damage. Traditionally, it is said, no one was responsible for grazing land and there was no control. Anyone could graze their animals anywhere since there was plenty of land for grazing. In Bigodi, a group of 7 families claimed a hill previously used as open-grazing land after reportedly getting a lease for it.

C. FISH

Only in two communities was fishing an important economic activity. In Kabata, a local cooperative asked the Fish and Wildlife Department to stock Lake Lyantonde with carp. Two people were employed to fish on behalf of the society. The society then sold the fish to all members in the community regardless of whether they were members of the cooperative or not. Non-members fish illegally, using hooks which catch young fish. Some people are now assigned to guard against such people. Two guards are paid a salary. Any member of the society can stop/arrest people fishing illegally. Boats are in poor shape, as are the nets. There are too few nets as well. They also need nets with larger mesh, so they don't catch the young fish. In Bigodi, there were reportedly more than 20 privately owned fish ponds around the swamps. Here, they faced problems from otters and snakes.

D. OTHER SOURCES OF INCOME

Those communities near tea estates like Isunga, Kyakatarata, and Kinyantale supplement their incomes by working on these estates. However, the number of people working on the estates is declining due to low pay. Each worker earns about shillings 6,000/= per month.

Tea growing was a major source of income for the Kinyantale village, both for paid labourers and those who own tea estates. Men are said to work there (though women can be seen in the tea fields), spraying, picking, and weeding. On one estate, people work 6 hours a day, Monday through Saturday. Tea is sold to the tea factories at Mpanga, Mabale, and Munobwa. One kilo is 100/= undried; employees picking the tea get 20/= per kilo, the estate owners get the other 80/= per kilo.

Camp workers at the tea estates at Rwebitaba supplemented their meagre income with foodcrops which they grew exclusively for consumption. This is because they did not have enough time to cultivate and because animals raided their crops. The crops were grown on estate land near the forest reserve and so subject to crop raiding. Tea-estate work includes plucking, pruning, and clearing. People are allowed to grow annual crops on tea-estate land but not plant trees or perennial crops. All other economic activities are discouraged by the estate management. People fear being sacked for attempting to earn outside income or for complaining about conditions on the estate. Pluckers here have a fixed, base salary of 7,500/= per month. If they pick more than 15 kilos in a day, they are paid 20/= per kilo for the surplus. Benefits include free housing (but no modifications can be made to the house), subsidised medical care, and clean water (when it's flowing). There are no education facilities available.

The expansion of the estate in order to deter people from encroaching onto forest reserve resources will not be effective if the pay remains so low and the conditions of work so poor.

Brewing local beer and selling and trading foodcrops are also important activities in the local economy. Handicrafts are a major activity for women. They use materials from swamps, some of which are within the forest reserve. The proceeds of the handicrafts are used at home for consumer goods. In Bigodi, for example, a women's club was started by a Peace Corps volunteer. This club uses swamp resources to make handicrafts which they sell locally and to tourists. There is also a Mother's Union. Women plant vegetables and make handicrafts for sale. Ten percent of each item sold is kept within the project to keep it going.

Those communities neighbouring tourist camps, like Bigodi, or the Makerere University field station, like Kanyawara, derive some income from working in these areas. In Bigodi, a relatively richer community than all the others, there were shops, a fish culture project, apiculture, brickmaking and handicraft projects, and pitsawing.

In two communities (Kinyantale and Busiriba), coffee constituted an additional source of income. Many people grow coffee, usually on 1 acre or so of land. Land shortage discourages expansion. The market for coffee was very poor. What coffee is produced is sold to cooperatives such as Mulongo. Some people come from other villages and buy coffee at 100/= for 1/2 "blue band" can.

VI. NATURAL RESOURCES

A. TREES

1. ATTITUDES TOWARDS TREE PLANTING

In all the communities, people planted trees in small patches around their houses. They said they planted trees because the government did not allow them to cut natural trees. The types of trees planted depended on the amount of land available (some trees take up more space than others), the perceived utility of the tree species, and government regulations (people avoided planting government controlled species). Attitudes towards tree planting were thus greatly influenced by the enforcement of Forestry Department regulations with respect to certain tree species, by the perceived gains by the local communities in planting certain trees, and by local knowledge of conservation.

Certain species were preferred because they were a source of firewood and poles, while others were preferred because they were fast growing. Eucalyptus and cassia were commonly planted as they were said to be useful for firewood and poles. Pines (*Pinus patula*) were said to be fast growing. They also planted or wished to plant *omusizi* (*Maesopsis eminii*), *omutumba* (*Cordia abyssinica*), *omusambya* (*Markhamia platycalyx*), and *gravella*. These species were preferred because, according to the communities, they have many uses. Woodlots of *emisambya* and cassia were used for timber and building poles. Fruit trees were also planted for their fruit. *Omusasa* (*Sapium ellipticum*) was not very popular. It was said to be useless as a source of firewood or timber.

Some species of trees were said to bring water while others did not. Women in Kanyawara cut trees that they said did not bring water and replaced them with trees that did. Eucalyptus, for example, was said to be water consuming. Some trees were also said to improve the soil, especially *omubimba* (*Sesbania sesban*) and a fig (*Erythrina abyssinica*). Using indigenous knowledge of the utility of certain species, trees were mixed with crops on some pieces of land and plots were divided according to the species of trees. Farmers left sections of "natural" forests, but cut "bad" trees and planted "useful" species in cultivated sections. Some natural trees like *omusambya* were said to be useful but are not planted sometimes because they grow too slowly.

There was some planting of trees by communities as a group either for commercial purposes or to protect a commonly exploited resource. In Kabata, the cooperative wants to plant trees around the lake where they have stocked fish and will control their exploitation. Trees further away from the lake will be cut by the cooperative members and revenues will be put in the society account. In Bigodi, there is a project at the secondary school that has 120 nursery beds (3 beds/student). They want to sell these trees to people in Bigodi. People also planted trees in response to campaigns by local RCs in many of the areas visited.

2. PROBLEMS OF GOVERNMENT TREE TENURE

In most of the communities, natural forest patches were said to be privately owned. Despite government restrictions on the use of some species, the individual "owner" is considered to have full

control over the patch of forest on his or her land, though there is some pressure to allow free collection of firewood, poles, and medicinal plants by neighbours in some communities. People preferred to cut down the trees in the patches they owned and to plant eucalyptus. The natural trees were seen as belonging to the government while the trees they planted were their own, since they could cut them without seeking permission. Clearly, the tree tenure system applied by the government may actually be a disincentive to the protection of certain species of trees by the local community. People said they would keep those natural trees if they thought they owned them. Instead, they avoid planting them or even cut them down in certain cases. It is also important to note, however, that local communities see these trees as a very long term investment, since they are slow growing. Any doubts about the security of their land tenure will also discourage the residents from planting or protecting these "natural" tree species.

As stated, people had no right to harvest timber within their own forest patch. They had to apply to the forest officer for a license, with letters of reference from the RC 1, 2, and 3. Certain trees are more strictly protected than others, particularly the big timber trees such as *Fagara macrophylla*, *Markhamia platycalyx*, *Albizia corioria*, and *oleo*. Only a few communities reported selling wood products beyond their immediate area (Bigodi and Kabata). In many cases, the residents we interviewed claimed the process of asking for permission was tedious, or that the trees in their forest patches were too few to meet even their own pole and timber needs. There are, however, some notable caveats to this statement.

Although the tea estates buy most of their firewood from government plantations, a few individuals in the communities near the estates had eucalyptus plantations from which they harvested firewood for sale to the tea factories in Mpanga, Munobwa, Hima, and Ibale. In some communities charcoal and timber were sold from community land after paying a tax and obtaining a three-month license. Poles for building are generally sold, though one can ask for permission to gather some freely. In the forest patches, small poles are cut freely. We were also told that many people cut trees illegally, suggesting that forest use is much greater than is officially recognised, and that government regulations are probably not having their intended effect.

3. RIGHTS OVER TREES FOR WOMEN

In many communities, we were told that, originally, only men planted trees. This was because land is said to belong to men and building to be the responsibility of men. This was most strongly stated by the Batoro, but was also mentioned in Isunga and Kasenda, where many Bakiga and Banyankole are settled.

Inheritance laws were an additional disincentive to women who wished to plant trees. When a man dies, the widows are often sent away by his family. The same threat is posed by brothers of a woman who is given land by her father. Because she might eventually leave for marriage into another clan, a woman's male siblings might try to take her land away from her. There is little incentive for women to plant trees in such situations because their future access to the benefits of the trees is uncertain. Though women might have access to fruits and dead wood for fuel, the men could claim the trees for poles or timber. The women also said that in a polygamous situation,

conflict arises if one wife plants trees on cropland because other wives will complain that there is no place for them to cultivate.

In other cases, women were said to be able to plant trees. This was most often the case where, following the closure of access to the forest reserve, the fuelwood shortage intensified to the point where some families could only obtain firewood from their own land. But even in these cases, men usually decided when and how the trees would be used. Once again, the men justified their actions by saying that women don't have the authority over the trees they plant because women don't own land.

In a few villages, women commented that this situation may be changing. Women in Bigodi, for example, said that more and more women were now buying land with their money, obtaining a title in their own names. In such situations women were able to both plant and control the use of their trees. When women had more control over which trees should be planted, whether on their own land or in conjunction with their husbands, they generally planted trees useful for firewood and timber. *Cassia*, eucalyptus, and *maesopsis* were especially favoured, though other, unspecified indigenous trees were also thought to be useful.

4. FIREWOOD

Access to the forest reserve was once an important source of firewood for many of the communities we interviewed. Tighter restrictions on access have, therefore, limited the amount of wood that can now be collected from this source. Those near the reserve do occasionally get firewood from there, but at the risk of a fine from Forest Department officials. Presently, forest patches are the main source of firewood in most communities, though many of these have been cut down to clear the land for cultivation. Firewood is therefore very scarce in several of the communities we interviewed. Some residents have plantations of eucalyptus and get wood from these, while others living near tea estates, active or abandoned, used tea bushes and prunings for their fuelwood needs. Women in Busiriba suggested that they use elephant grass as their primary source of fuel.

Firewood and grasses collected from private land is often not paid for, though permission is sought from the owner before collecting. The same is true for firewood taken from tea estates. Wood obtained from eucalyptus plantations is, however, usually paid for. Women may spend the whole day looking for firewood in these places; what they collect may last them only two days.

B. SWAMPS

Some of the swamps were said to be privately owned in Isunga. This meant that whoever needed resources from these swamps had to ask for permission. In other areas, although the swamps were said to be individually owned, there were no restrictions on access to them, and the products were used communally. In Kinyantale, the swamps were communally owned, and no outsider could clear the swamp. Those with land next to the swamp owned the nearest part, but neighbours agree on how to use the swamp.

In Bigodi, there is a community project to manage a part of the swamps for tourism. "It is our project", said the Bigodi people, emphasising community control, in contrast to a small group of

people who enclosed an area for livestock with little input from the rest of Bigodi's residents. A local NGO is managing the project, and money will help the community build schools, roads, a dispensary, etc. The NGO will also collect money to pay local workers for clearing the paths and other maintenance work.

Swamps in the various communities were an important source of handicraft and thatching materials, mudfish, water, clay, and sand. Some of the swamps have been drained for agriculture while others are drying up due to the drought. Most communities living near the swamps were alarmed at the prospect of losing this resource.

C. SOIL EROSION

There is some soil erosion on hill slopes in Kyakatara, Bigodi, Busiriba, and Kinyantale. The communities dig trenches along the edge of gardens both along and across contours to trap and direct the water. They also build strips or bunds and plant grass on them to stop soil from running down slope.

D. WATER

Water was a problem in most of the communities. Water was drawn primarily from springs, nearby crater lakes, or swamps. Few, if any, covered wells or other improved water sources appear to have been built in the area. In some communities like Busiriba, water sources are far away. There are some springs and wells, but they dry up in the dry season. Water shortage is in some communities attributed to population pressure. In most communities, however, easily accessible sources are dirty.

There was some degree of local initiative to dig and protect springs through local community organisations, NGOs, or cooperatives. In Kyakatara, the community had to dig the wells deep and build fences around them to prevent animals from spoiling the water. In Kinyantale, a church related NGO constructed protected springs. The NGO provided cement and pipes while the local community contributed sand and stones.

In Kabata, the cooperative attempts to maintain the lake by cleaning it and regulating activities in the surrounding slopes/watershed. People are prohibited from distilling *waragi* (a locally produced alcoholic drink) on the slopes around the lake because it releases a by-product which kills the fish and makes the water dangerous for human consumption. Cultivation is also limited because soil erosion will silt the lake. Cooperative members hoped to plant tree seedlings to further protect the lake from siltation.

Livestock generally had access to water in swamps and lake areas, though sometimes water was provided in troughs by the cattle owners.

VII. CONSERVATION

A. PROBLEMS OF PROXIMITY TO A PROTECTED AREA

1. INSECURITY OF LAND AND CROP RAIDING

There were many recurrent problems related to the proximity of these communities to the game corridor and the forest reserve. Insecurity of land tenure among residents living on public land was among the most serious of these. Many felt as though there was a continued threat that the borders of the forest reserve would be changed once more and that they would be evicted. Enforcement of existing boundaries has already led to the loss of agricultural land, sources of wood, charcoal, timber, and even markets for local produce. In Kabata, residents said evictions had also led to further subdivision of their land as they had to share it with evicted relatives.

By far the most important problem facing people living near the game corridor and the forest reserve, however, seemed to be crop raiding by monkeys, pigs, baboons, buffaloes, and elephants. In most of the communities, people said they had to keep guard over the gardens all night to protect them against these raids. People were frustrated by their incapacity to respond to the raids: the animals were protected by government; the crops were not. They complained that although they reported these raids to the game authorities, no action was taken.

2. ACCESS TO RESOURCES IN THE GAME AND FOREST RESERVES

Many of the interviewees expressed interest in regaining limited access to forest resources. In Isunga, for example, the residents claimed to have no access to the sources of water nearest them since they were situated in the reserve. Alternative sources are far away, it was said, and not as clean as the water in the forest. Consuming dirty water had apparently contributed to local health problems. Residents were very interested in gaining access to the water sources in the forest.

Other communities expressed interest in buying medicinal plants, poles and timber from the forest reserve. They were undecided, however, as to whether purchases should be made from the Forest Department, or whether local people should pay for licenses to exploit such materials. Several residents thought they should be able to collect craft materials, such as grasses or papyrus, free of restrictions.

A few of the people we spoke to also expressed a desire to be able to burn charcoal and hunt wild animals in the reserve. The suggestion seemed to cause a stir among the groups we were speaking with when voiced, probably reflecting both popular support and the knowledge that these were among the most serious violations of the present restrictions on forest use.

B. BENEFITS

As to the benefits that communities derived from their proximity to the protected areas, the answers ranged from a categorical "no benefits", since "these areas belong to government and we are not allowed to go there", to a mix of ecological and financial benefits. Despite the divergence in views,

all communities said the existence of the forest was necessary and vital for their own survival. In Busiriba, residents said that since the forest patches have been cut down, their water sources have started drying up and rains are less regular. They therefore preferred the forest to remain as a water-catchment area and a source of fresh air and oxygen.

Only two of the nine communities said they benefited from tourism (Bigodi and Kanyawara) as a result of their proximity to the game corridor and the forest reserve. Many communities (Kyakataru, Isunga, and Busiriba) did not see any tangible financial benefits from the forest since access to it had been closed. They said they wanted to know where the money generated from the forest went, what it did, and how it could benefit them. They wanted the money generated from conservation to pay for schools, churches, hospitals, roads, and boreholes for water. Some also wanted employment, though it was not clear what kinds of jobs they thought might be available.

Women from Bigodi, and to a lesser extent Kanyawara, said that tourists bought their handicrafts. In Bigodi, which is close to the Kanyancu Tourist Camp, residents said they got income from a growing service industry for tourists, mostly of the backpacker type, and animal researchers. There are several lodges and restaurants in the area, and local agricultural produce is sold to the tourist centres. Many residents are also employed by the tourist camp. As a result, a number of men in the community have bought bicycles, constructed houses, and accumulated other signs of wealth. They have also used tourist revenues, at least indirectly, to help build a secondary school.

Women from the Kanyawara tree planting group said as a result of their association with the field station they had learnt land management techniques and tree planting. They had also learnt how to grow a variety of crops. In addition, they also acquired nonformal education and general knowledge of the environment. However, our interviews with this group revealed a gap between the knowledge acquired in this way and their lived experience. The problems of the women seemed to be those of survival: sale of food crops, access to the forest and forest resources, local arrangements for access to land, and labour. The perceptions of the impact of the conservation area on their livelihood seemed to be in contrast with the lessons they had learned as part of the conservation group based at the field station. This raises important questions concerning the effectiveness of the conservation education programs.

Each of the nine communities was anxious that the ecological balance brought about by the presence of the forest should be maintained. Yet, there is a great sense of frustration among the communities in that they are not able to use the forest resources they need while, at the same time, they are not allowed to respond when animals raid their crops.

In discussing the possible future benefits of the protected areas, two basic arguments emerged. The first was that money obtained from the protected areas should be ploughed back into the local community to support various kinds of development projects. The second was that some form of exploitation of forest resources, carefully regulated, should be permitted. If given a part of the forest, some communities said they would be willing to protect it, although they foresaw problems regarding exploitation of forest resources. The communities suggested the use of RCs or elders to control extraction, although they insisted that even the RCs would have difficulty monitoring this if there were no guards. They said that due to conflicting interests and the scarcity of resources,

control of access would be difficult. Most residents, however, were willing to evolve a community-based management system for the most scarce and highly sought after forest and game corridor resources. The major question therefore remains: what form of management by the community of the protected area is possible and how would it be developed?

VIII. DISCUSSION

Given the background of those participating in the research team, perhaps it is not surprising that one of the most salient impressions we have drawn from our rapid appraisal exercise is that confusions over legal rights in land and other resources have been at the heart of the conflicts over the use and protection of the Kibale Forest Reserve and Game Corridor.

At present, there exist at least three layers at which resource use is regulated in this area. There is a system sanctioned by the central government in which land is surveyed and leased, and in which certain areas are reserved for particular uses of interest to the government. This system is laid over others in which residents respect what is often termed the "customary rights" of those who have settled in the area long ago, or have inherited or made purchases of land from those who settled before them. This layer depends little on the organs of state bureaucracy for legitimacy and remains largely invisible to those organs. Finally, there is a third layer in which people recognise the state's authority over land rights, but have developed local, semi-official arrangements involving RCs and parish chiefs in which access to land and land use is regulated. This development is the result, in part, of the cost of surveying and leasing land, which discourages most poorer members of the communities surrounding Kibale from participating in the central government's system.

The loss of faith in customary tenure, related to recent evictions and episodes of spoliation, has also supported the expansion of the semi-official system. In Bigodi, Kanyawara, and Kinyantale, we learned that families had lost access to land in which they had enjoyed use rights for some time when others, with no special customary claims, obtained leases from the central government. Furthermore, there continue to be many people living at the edge of the reserve and game corridor who are concerned that, without leases, they will have no protection against an effort on the part of the central government to gazette more land for the protected area. In many cases, therefore, the semi-official layer attempts to solve what would be an intractable problem of the exchange of public land where few can afford leasehold, and where customary rights no longer offer adequate security.

The semi-official system has retained important elements of customary tenure. Both depend primarily on relations among people who live in the same community, facilitating communication of the rules and norms of resource use. This is in contrast to the central government's system in which numerous changes in regimes over the last generation, conflict within individual regimes over the appropriate use of land near Kibale, and limited communication between agents of the central government and local communities have left many residents confused and fearful of government's intentions. Both also appear to be more sensitive to variations in the circumstances of community members than the central government's system of leasehold. Community land rights, and the rights to collect certain products on private land (particularly important to women and other politically or legally marginalized groups), seem to have been retained in the semi-official system of land tenure. These secondary rights are largely absent on lands held under household title or in protected areas.

It is likely that the existence of these multiple resource tenure systems contributed to the settlement of the Kibale Forest Reserve and Game Corridor and to the eventual eviction of the settlers. Most of the people who settled around the southwest of Kibale said that the first settlers simply settled

where there were no people, or negotiated with the local Batoro for access to land, occasionally paying a small fee. Others with whom we spoke pointed to an agreement between the Rukidi of Toro and Ngorogoza of Kigezi which sanctioned settlement on the right side of the Fort Portal-Kamwenge road, including areas within the game corridor. Each of these explanations draws, at least partially, on a customary form of obtaining land, based on a historical pattern of arrangements between traditional leaders. There is some evidence that the central government also sanctioned settlement in these areas at various times, earlier as a source of labour for the tea estates, later as part of a campaign to raise agricultural production. Even if this is not the case, however, immigrants seemed to believe they had a legitimate claim to the land through the historical agreement between traditional leaders.

Two important consequences can be anticipated from this multi-layered tenure system in the near future. As long as protections for those who occupy land under customary or even semi-official tenure are neither well-known nor well-enforced, there is potential for significant land concentration. Better-educated, wealthier, and/or politically well-connected individuals may be able to evict long-term residents simply by obtaining a lease. The threat of losing one's land might also be expected to have an impact on land use practices. Certainly this was the claim of many of those from Burambira, who were reluctant to plant perennial crops for fear that the boundary of the game corridor might shift again. It is not difficult to imagine that those same fears discourage residents from planting trees or building terraces or making other long-term investments in their land.

It is no surprise that the evictions of people living in the forest reserve and game corridor that took place in 1992 increased the sense of insecurity among those occupying public land near Kibale. This, however, was not the only effect of the evictions that was mentioned during our interviews. In Kinyantale, Isunga, Burambira, Bigodi, Busiriba, and Kabata, residents complained that land pressure had increased as some of those evicted resettled in their villages. Landlessness was said to be particularly acute in Burambira. Residents of Kabata also noted that trade with those living in the game corridor had been an important part of their economy. They found themselves in short supply of many of the agricultural products that people of the Corridor used to sell them. Finally, women in several of the communities we visited, particularly Busiriba, mentioned that the number of hours they spent gathering wood products and water had increased greatly since restrictions on access to the forest had been more strictly enforced.

It is worth noting that Kabata faces many of the problems related to the eviction that we have discussed above. According to residents, Kabata is located at approximately ten kilometres, along footpaths, from the border of the game corridor. The implications of the evictions seem to be felt over an area somewhat larger than our research team had realised. In evaluating the costs of the eviction program, it may be necessary to monitor changes in communities at quite some distance from the protected area.

Though many of the people we interviewed seemed most concerned about land issues, other resources generated considerable discussion as well. Questions concerning the use and control of trees, for example, evoked a consistent pattern of responses. First, there was a strong preference among both men and women for planting fast-growing exotic tree species. It was important that these trees be planted, because this established ownership for the planter. Residents noted that

"natural" trees belonged to the government, including those on leased land, and could not be cut without a government permit. Some communities knew that government control applied to species used primarily for timber, others seemed to believe that the use of any natural tree was restricted. Though many indigenous species were thought to be useful, the ambiguity over the right to harvest them served as incentive to cut them in secret and replace them with trees planted by land owners. While there are certainly other pressures to clear natural forest patches, such government regulations, whether perceived correctly or incorrectly, appear to have exacerbated the trend. Because many of them are relatively slow-growing, few indigenous species are then included in the plantations which replace these patches.

Second, there was considerable confusion over whether men or women plant and harvest trees. With a few exceptions, women were thought not to be able to own land. As this is commonly believed to be a prerequisite for tree ownership, women should not in principle have the right to plant or harvest trees. Yet, women often claimed that they did plant and, to a lesser extent, harvest tree products. Women were most vocal on this point in groups where no men were present. Even in mixed groups, however, a few women claimed to effectively own trees, often in the face of energetic opposition from the men present. This may reflect a normal pattern whereby women, who provide much of the labour for planting and harvesting, enjoy rights to negotiate with their husbands over how these decisions are made. It may also, however, reflect a more fundamental change in the balance of power within the household, perhaps linked to the formation of women's groups (such as those at Kyakatara and Kanyawara), expanded legal rights, and greater political representation in the current government. As women appear to have different interests in planting trees, such as a greater desire for species which provide fuelwood or charcoal, an expansion in their rights to control tree use is of interest to the managers of the Kibale Forest.

Wildlife is another resource which was energetically discussed. While there was considerable interest in many communities in hunting for game meat, the principal concern seemed to be in protecting crops from baboons, monkeys, elephants, and other crop raiders. Residents were particularly frustrated at the lack of government support for chasing off wild animals. In the past, Game Department staff were said to scare the animals off with gunshots. Today, no such help is available. Some residents would like to be able to shoot any wild animal that comes into their gardens. Most, however, proposed a number of less drastic solutions, including: occasional culling of raiding populations, arming farmers with guns that would simply scare the animals, building a fence around the reserve, or providing farmers with pesticides that would deter raiders. All of these proposals reflect the sentiment that traditional methods of controlling wild animal raids have been prohibited without the provision of an effective substitute.

If most residents of the villages near Kibale feel they are bearing an unfair share of the costs of wildlife protection, most also feel they receive little or no benefit from tourism. In Bigodi, where significant outside investment has been made in developing a tourist industry, this is not the case. In fact, responses in Bigodi were quite encouraging. A broad spectrum of people appear to derive some benefit from tourism, and local initiatives are now developing to further take advantage of the tourist trade. Outside Bigodi, however, few seem to derive much benefit from tourism. Most of the respondents with whom we spoke were interested in revenue sharing. They wanted some of the money earned from tourists to be used to support schools, dispensaries, roads, and other such

projects in their communities. Fewer seemed interested in developing tourist facilities themselves, perhaps associating such developments with outside financial and technical assistance.

The rather long list of problems associated with forest protection does not mean there is no support among the communities we interviewed for such protection. In fact, most of the people with whom we spoke wanted the forest to remain more or less as it is. Several suggested that the forest provided clean air and water and encouraged rainfall in their areas. Virtually all groups listed a number of resources found in the forest which they would like to harvest without jeopardising future supplies. Even those who wanted land for crops spoke of the need to develop rotations that would not affect forest regeneration. In theory, there are concrete incentives for residents of the Kibale area to protect the forest.

There is some question, however, as to the capacity of these communities to play a role in the effective management of the forest. Of course, what forms of management are considered legitimate will have much to do with how local capacities are evaluated. Still, it is useful to try to think about what institutions already exist, those that are developing, and those that might conceivably be developed by local peoples to manage forest resources. When asked direct questions concerning their respective communities' abilities to manage the use of forest resources, most respondents were rather pessimistic. Indeed, the most visible local decision-making unit, the RC, appeared to have its hands full with the tasks already assigned to it. In most villages, there were few signs of the existence of other associations with broad local support.

The research team also looked for resources that were managed as common property, with formal rules of access and use, but did not find many. Forest patches, in particular, were said to be privately owned in almost all circumstances. Yet there are examples of institutions, in the loosest sense of the word, that regulate local resource use. As we proceeded in our discussions, it became clear that in many areas, private forest patches were expected to provide community needs in fuelwood, medicinal plants, thatch, and occasionally even poles. Swamps were often considered open to the community for collecting craft materials and water, even though in principle they were "owned" by those bordering the swamp. Cattle owners in Kinyantale have also organised to hire a single cattle keeper and graze the animals on open land. At the risk of stretching the point too far, these sorts of arrangements suggest that there are norms and rules of resource use behaviour that operate within these communities.

In addition, initial skepticism over local institutional capacity may represent, at least in part, a conservative response to a somewhat surprising question. In Isunga, for example, although the group first thought it impossible for members of the community to be involved in managing the forest, by the end of the meeting, there was some suggestion that the RCs and/or elders in the community might be able to exert limited control over forest use. Certainly the RC system was named as the principle organisation responsible for resolving other disputes over resource use in the community, such as crop damage from grazing or garden plot boundaries.

There are also non-governmental organisations, locally run, which are actively involved in managing resources in the Kibale area. The Kabata Farmers Cooperative has taken on the management of a lake and the surrounding hillslopes, as well as a 20 acre group farm. There is also an NGO forming

in Bigodi which is trying to organise tourist trails through a patch of swamp, and controlling swamp use to improve bird viewing and other tourist attractions. While these organisations are still relatively new, and face a variety of problems (building good will among non-members, earning and allocating benefits to members), they may hold exciting potential as models for other communities. Finally, though we did not find examples of churches directly involved in resource management issues, they are an important organisational force in these communities, and probably pre-disposed to notions of ecologically sustainable development.

