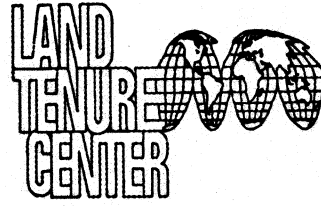




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# **A Rapid Rural Assessment of Pastoral Grazing Areas of Mpara and Rwebisengo Sub-Counties in Kabarole and Bundibugyo Districts**

by

**Sam K. Kayabwe**  
Makerere Institute of Social Research

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

**Research Paper 9**

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

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Any errors of fact or opinion which remain, in spite of so much good advice and assistance, are my own.

Sam K. Kayabwe,  
June, 1994.



## EXECUTIVE SUMMARY

An earlier study on rangeland tenure by Kisamba-Mugerwa (1991) identified, *inter alia*, an existence of pastoral activities in the Mpara and Rwebisengo Sub-counties of Kabarole and Bundibugyo Districts. These two sub-counties have a more or less similar combination of settlers with different ethnic backgrounds and different resource-use interests. The tribes referred to are: Batoro, Bahima, Rwandese refugees, Zairois, Bakiga, and Basongora. These tribes can be classified into two resource-user groups: "cattle keepers," and "crop cultivators."

The earlier study having observed mismanagement and degradation of pastoral resources in the communal grazing areas of Mbarara District, a further investigation was proposed for the communally grazed areas of Mpara and Rwebisengo Sub-counties, where such a mix of tribes co-exist. One would expect, hypothetically, a higher level of mismanagement and degradation of pastoral resources in these two sub-counties arising from lack of coordination than in the Mbarara District, where there is no such mix of different groups and resource-use interests. Hence, the main question was: How does such a mixture of communities manage the pastoral common property resources? However, a study of this magnitude could not be undertaken without a basis for its formulation. This necessitated carrying out a rapid rural assessment (RRA), whose findings are presented and discussed in this report.

Although there is a mixture of five different tribes in Mpara Sub-county, the RRA revealed that divergence in tribal background is not a major factor by itself in causing conflicts and/or mismanagement of pastoral common property resources. The main cause originates, though not exclusively, from several other factors such as the mixture of people with different resource-use interests (crop cultivators versus cattle keepers), population explosion, illiteracy and/or lack of awareness, and colonial and post colonial policies of a "trickle down" instead of "bottom-up" approach to development.

Mpara Sub-county is primarily public land with a few pockets of leased land for ranch development. With the exception of a no-man's land between Kyaka 1 and Katonga Game Reserve which is grazed on as open access, all land is individualised (with or without title) by private individuals settled customarily, or by government institutions such as The United Nations Office of the High Commissioner for Refugees (UNHCR) and the Game Department.

The major economic activity in Mpara Sub-county is livestock, though the main purpose for keeping livestock is subsistence. At the time of this study, this sector was faced with remote and inaccessible grazing areas, closure of the only cattle market in the sub-county due to a Contagious Bovine Pleuro Pneumonia quarantine, poor market prices, and the lack of a functioning milk cooling plant. Crop cultivation in the sub-county has no significance as an economic activity.

Although there is no land in Mpara Sub-county that is communally held, and every piece of land has an individual claim on it, management of pasture is very tricky, as it alternates between private property and common property regimes depending on location and season of the year. The research team observed two traditional pasture management techniques: seasonal

migration and bush burning. However, these practices were being tampered with on Kyaka 1 Refugee settlement by migrant encroachers with a crop-cultivation background, which led to overgrazing on the settlement plus encroachment on the Katonga Game Reserve. While the natural water points, government dams, and communal dips can be accessed communally by all cattle keepers, man-made shallow wells and cattle crushes can not be accessed without permission from the owner(s). However, all the communal dams and dips were not functioning at the time the study.

Rwebisengo Sub-county, like Mpara Sub-county, is settled by people with a similar diversity of ethnic and resource-use backgrounds. Unlike in Mpara Sub-county, however, there has been a high rate of inter-marriage between different tribes, leading to the creation of a more or less homogeneous society called "Batuku." There has also been a high rate of adoption of cattle keeping among tribes with a crop-cultivation background, which has led to the elimination of resource-use tension caused by differences in resource-use interests, unlike in Mpara.

Although cattle keeping is primarily for subsistence purposes, as is the case in Mpara Sub-county, it is also the major economic activity in the sub-county. Crop cultivation does not feature at all as an economic activity.

All land in Rwebisengo Sub-county is public land customarily settled, communally owned and managed as a common property of the Batuku community. Hence, every member of the community has an equal right of access to land. The communities have resisted all attempts geared towards individualisation of landholdings. The research team identified "equity" as one of the major factors responsible for this resistance.

With regard to resource management, there are two distinct local land use rules commonly observed by the entire community: a) all land in the centre, approximately 95%, is strictly for communal grazing, and there is no organised communal grazing pattern, as animals graze randomly in the plains without any herdsman; b) the remaining 5% of the land, located on the periphery, is for crop cultivation. All six communal dips in the sub-county, constructed by the Butuku Cattle Market Cooperative Society with some external assistance, were functioning, unlike in Mpara Sub-county. Dams and/or water tanks are not necessary in this part of the district since the water table is very high, making it easy for individuals to dig their own shallow wells, which are usable all the year round, unlike in Mpara Sub-county. However, shallow wells, as in Mpara Sub-county, are private and not communal facilities.

Overall, management of pastoral common property resources has been more successful in Rwebisengo than in Mpara Sub-county for the following reasons.

- a) Ecological factors favour Rwebisengo in terms of pastoral resource management.
- b) Homogeneity of the Batuku society, through inter-marriage, facilitated the implementation of the local land use rules and management of the communal resources.

- c) Involvement of a grassroots, “bottom-up” approach through the Butuku Cattle Market Cooperative Society affected socioeconomic welfare, unlike in Mpara Sub-county where there was a “top-down” approach.

Despite the above credits given to Rwebisengo Sub-county with regard to pastoral common property resource management, the sub-county appears to suffer from severe overgrazing due to over-stocking exceeding that of Mpara Sub-county. In addition, Rwebisengo has a higher growth rate of animal and human population, despite its size, compared to Mpara. Under normal circumstances in a situation like this, one would have expected a breakdown of the communal management system and its replacement by privatisation resulting from the pressure on the resources. Surprisingly, there is an inverse relationship.

Emanating from the above findings, several research questions, which directly translate into research objectives, emerge for probing in the larger study on community management techniques of pastoral common property resources.

1. What factors, other than geographical location, led to the formation of the Butuku Cattle Market Cooperative Society?
2. What coordination activities were adopted by the society, as a viable institution, to bring about cooperation and adherence to the rules among the resource users in Rwebisengo Sub-county? Could there be other viable traditional institutions involved?
3. What is the level of inter-marriage between different ethnic groups in Rwebisengo, and what factors facilitated this inter-marriage to bring about a homogeneous society?
4. What is the level of adoption of cattle keeping among tribes with a crop-cultivation background, and what factors facilitated this adoption? Is this adoption a function of inter-marriage, ecological factors, local land use rules, sensitisation, or a combination of any of the above?
5. Why is there a negative correlation between population pressure on the land and a sustained communal management system in Rwebisengo Sub-county?
6. What are the current problems (whether access, management, or control) facing the pastoral resources in the sub-county?



## I. BACKGROUND INFORMATION

### A. CONCEPTION AND JUSTIFICATION

An earlier study on rangeland tenure by Kisamba-Mugerwa (1991) identified, *inter alia*, an existence of pastoral activities in Kyaka County of Kabarole District. In that study, the Bahima pastoralists of Mbarara District constantly referred to their migrations during the dry season to Kyaka County in search of water and pasture. Kyaka County, therefore, emerged as a potential area that could sustain pastoralism even during severe droughts.

Further investigations revealed that pastoral activities in Kyaka County were confined to one sub-county (Mpara) that borders Masaka, Mbarara, and Mubende Districts. It also was revealed that this sub-county accommodated not only the seasonally migrant Bahima but also several other tribes, some with a crop-cultivation background and others with a cattle-keeping background. The tribes referred to are the Batoro and Bakiga (cultivators), Rwandese refugees (cattle keepers), and Zairois (cultivators). Besides, it was also established that Rwebisengo Sub-county in the nearby Bundibugyo District (see map 1) had rangeland characteristics with a more or less similar combination of migrant tribes with crop cultivation and with cattle-keeping backgrounds.

The earlier study having observed mismanagement and degradation of pastoral resources in the communal grazing areas of Mbarara District (Bukanga, Isingiro, and Nyabushozi Counties), further investigation was proposed for the communally grazed areas of Mpara and Rwebisengo Sub-counties, where people with different ethnic backgrounds and resource-use interests co-exist. One would expect a higher level of mismanagement and degradation of pastoral resources in these two sub-counties than in Bukanga, Isingiro, or Nyabushozi Counties where there is no such mix of different groups and resource-use interests. Hence, the main question was: How does such a mixture of communities manage the pastoral common property resources?<sup>1</sup>

No earlier case studies on pastoral activities in Mpara and Rwebisengo Sub-counties, particularly with regard to community management practices of pastoral common property resources, had been undertaken. However, a study of this magnitude could not be undertaken without a basis for its formulation. The following report, therefore, is the result of a rural rapid assessment (RRA) carried out in Mpara and Rwebisengo Sub-counties, between December 1993 and January 1994, to gather general information to be used as a basis for the design of a more detailed study on the Management of Pastoral Common Property Resources. The report first presents the RRA findings in Mpara and Rwebisengo Sub-counties, and then there follows a general discussion of the findings relating to management of pastoral common property resources, which contains the research questions to be examined in the larger study.

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<sup>1</sup> "Common property" is a key concept in this report and is treated separately in section I.D. In the context of this report, however, pastoral common property resources are: land, pasture, watering points, and dips.

## **B. METHODOLOGY**

The RRA involved the following two approaches undertaken by the research team of one development economist (principal investigator) assisted by two locally recruited enumerators.

- a) A qualitative technique involving interviews and/or group discussions with knowledgeable key informants, including civil servants in both districts of Kabarole and Bundibugyo, particularly from the departments of Agriculture, Veterinary, Game, and Local Government; Resistance Councils (RCs); Refugee Welfare Committees; Settlement Commandants; Butuku Cattle Market Cooperative Society; and a cross-section of elders from cattle keepers and crop cultivators. During the interviews and/or discussions, the principal investigator was the moderator, asking leading questions and probing different participants' responses. One of the enumerators was an interpreter, while the other was the recorder keeping track of the discussion. For purposes of consistency, a structured checklist of questions or discussion topics was used as a guideline for the discussion.
- b) Participant observations. These observations were very helpful in verifying what was happening on the ground, while at the same time helping to cross-check the validity of the information generated from individual and/or group discussions.

## **C. LIMITATIONS OF THE STUDY**

There are several things to bear in mind. First, grassroot group discussions, particularly involving cattle keepers, were difficult to organise due to the timing of the RRA. The exercise was carried out at a time when the dry season had just set in, a period when most cattle keepers in Mpara Sub-county migrate south to the Katonga Game Reserve. Experience showed that cattle keepers become very hostile and difficult to talk to during this period as their focus is on the search for water and pasture. Second, once cattle keepers are in the reserve, they become very difficult to access due to the lack of motorable tracks and the fact that they are very conscious of the illegal implications of their grazing in the reserve. Third, like some qualitative studies, the report contains some statements and conclusions which would be better explained with the backing of data, and this calls for the incorporation of a scientific approach in the larger study.

## **D. CONCEPT OF COMMON PROPERTY RESOURCES**

“Common property resources” are resources that are owned and/or managed communally, and to which access is shared by members of a community. In this respect, Bromley (1989) has the following to say:

A common property regime will, therefore, consist of a well defined group of authorized users (membership identity), a well defined resource that the group will manage and use, as well as the rules of use for the resource in question. In addition to the rules of use, there will be rules for changing the rules of use.... Of those recognized as being in, each has a duty to obey the rules of the group (compliance) and each has the right to expect others also to obey the rules. It is the right of the members limiting group size, along with the rights of the members

proscribing the use that each will make, that together constitute property. Hence the term common property regime.

Behnke (1991) observes that this pattern had been elegantly described by Netting (1982) for Alpine Swiss tenure systems but is equally pertinent to African pastoral tenure arrangements:

Resources that are needed by all but whose productivity is diffuse rather than concentrated, low or unpredictable in yield, and low in unit value tend to be kept as communal property with relatively equal, although not unrestricted, access by group members. Smaller, easier divisible, and more highly productive areas may be owned and inherited by individuals.

Before the concept of common property was developed, critiques of collective resource use, among whom was Garrett Hardin, argued that collective use of resources was tantamount to resource degradation due to lack of commitment by users. Using communal grazing as his model, Hardin claimed that communal resource management could not work in a contradictory situation where the range was commonly owned and animals privately owned. Given this combination of public and private property, he argued that individuals who increased the size of their herds by adding more animals to an optimally stocked common pasture, reaped all the benefits of those increases while they passed most of the costs (externalities) onto their neighbours in the form of overstocking, range degradation, and declining overall herd performance (this occurred because the marginal costs of overgrazing were shared among the community of users). Because their private benefits exceeded their private costs, rational individuals were encouraged to "ride free" (build up their private herds) at the public expense and over-exploit common resources, resulting in the "tragedy of the commons" (Hardin 1968). For Hardin, the solution was in a tenure reform (private range tenure) which would "internalise" the "externalities" since it would force individual herd owners to live with the results of their own overstocking (Behnke 1985).

Over the last 20 years, a literature critical of the "tragedy of the commons" analysis has developed. Ciriacy-Wantrup and Bishop (1975) faulted Hardin and other proponents of this view for failing to distinguish between common use situations characterised by an absence of defined property rights governing access and use, typically referred to as open access, and common property, defined as "a distribution of property rights in resources in which a number of owners are co-equal in their rights to use the resources." Ciriacy-Wantrup and Bishop faulted those who described communal use only in terms of the "tragedy of the commons" for overlooking the existence of common property arrangements and their potential for accommodating sustainable resource use. Under common property, the use rights of individuals could be defined and limited to prevent overuse of the common resources (ibid.).

Runge (1981), reacting to Hardin and other proponents of privatisation of the commons, provided a theoretical argument for why, in many Third World subsistence village economies, communal use has economic and ecological advantages over individual use. First, the costs of delineating clear private property rights typical in the West to many kinds of resources (fisheries, grazing areas, and forests) would be prohibitively high. Certain resource needs of poor people and small-scale users are more likely to be met collectively within common

property resource regimes. Second, in arid or semi-arid rangelands where productivity of the resource base is low and varies seasonally and spatially with variable rainfall, communal use accommodates relatively easy herd movement in pursuit of available grazing. Runge takes this argument of common property resource management a crucial step further and argues that the situation can be best modelled as an assurance problem involving interdependent choices by actors. He notes that the game is not one of conflict but cooperation and adherence to the rules. What is required for this positive outcome is some means of coordinating activity and achieving reasonable assurance as to the pattern and reliability of other people's behaviour to not free ride. In the real world, this is precisely the role played by viable institutions that manage communal property.

However, Lawry (1990) notes that though the concept of common property provides a useful corrective to Hardin's over-simplified critique of collective resource use, establishing local level common property arrangements may be difficult since, "Credible common property rules will emerge from social and economic relationships which can sustain rule-making and rule-enforcing institutions. The changing nature of village economies and social relations, coupled with growing pressure on local resources, may limit the scope for local action."

## II. A RAPID RURAL ASSESSMENT OF PASTORAL GRAZING AREAS OF MPARA SUB-COUNTY, KYAKA COUNTY, KABAROLE DISTRICT

### A. GENERAL INFORMATION

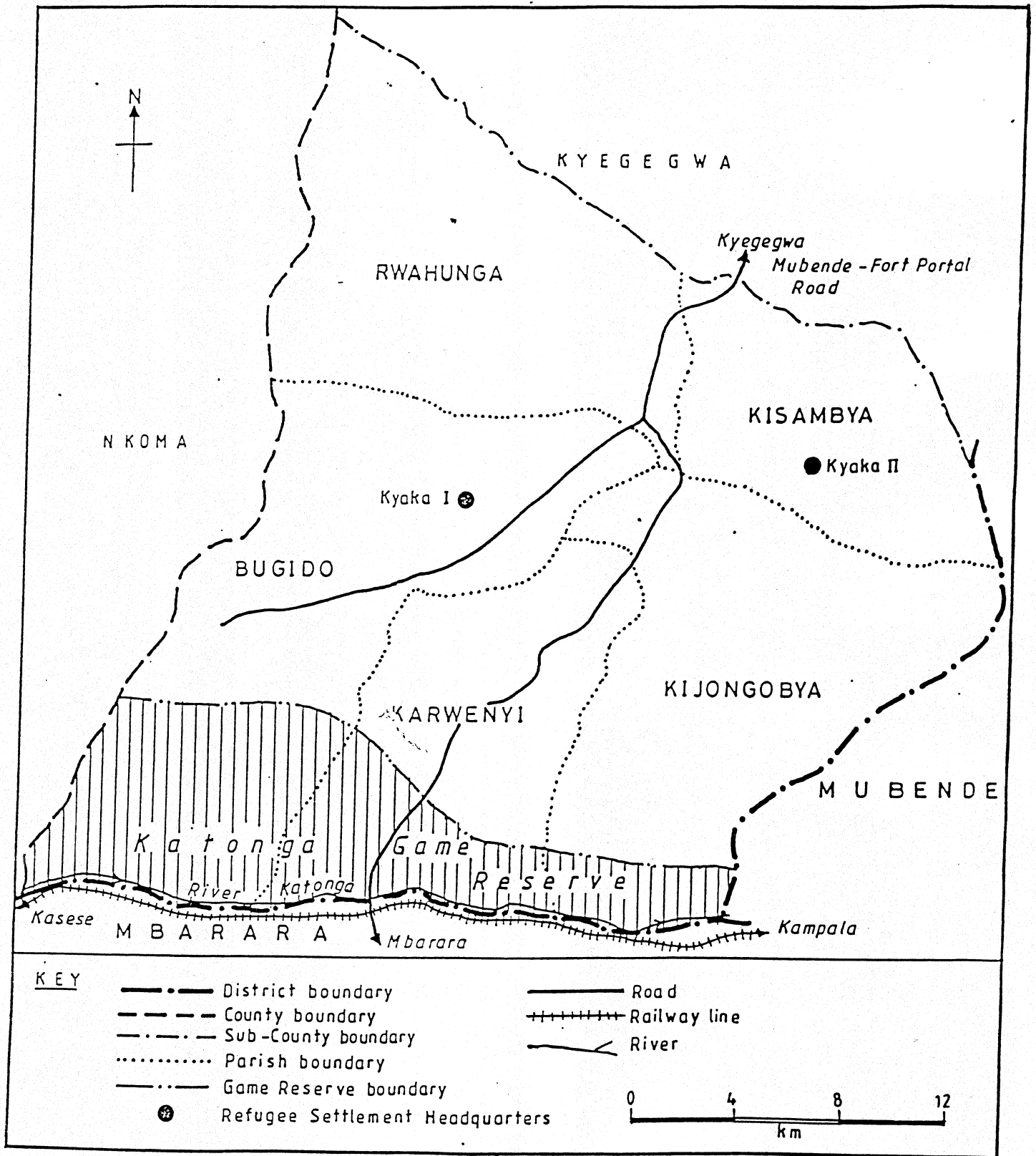
Kabarole District is located between longitude 30° and 31° 10' east and between latitude 0° 10' and 1° north. The district is composed of six counties: Bunyangabu, Burahya, Kibale, Kitagwenda, Kyaka, and Mwenge, and one municipality—Fort Portal. Kyaka County borders Mbarara District along the Katonga River, and is composed of five sub-counties: Hapuyo, Kakabara, Kasure, Kyegegwa, and Mpara. Mpara Sub-county alone occupies approximately half the entire county (southern portion) and is composed of Bugido, Kalwenyi, Kijongobya, Kisambya, and Rwahunga Parishes (see map 2).

Generally, Kyaka County, like the rest of the counties in Kabarole District, has two rainy seasons and two dry seasons: December-March (dry); April-June (wet); July-September (dry); and October-November (wet). Mpara is the driest of the sub-counties with the areas on the eastern side bordering Mubende District drier than areas on the western side. The soils of Mpara Sub-county are relatively sandy and, therefore, dry up very quickly during the dry season, which partly accounts for the rangeland characteristics in the sub-county.

Kabarole District has a total population of 741,400 (1991 census). Kyaka County is the least populated county with 63,800 people, of whom only 23,160 are in Mpara Sub-county, despite its occupying half the size of the county. As a result, Mpara is the least densely populated sub-county in Kyaka County. Several factors are responsible for Mpara being the least populated sub-county of Kyaka County:

- a) The sub-county is relatively dry and infertile.
- b) The infrastructure is poor, with a poor road network, health facilities, and water supply, particularly during the dry season.
- c) The heavy migration of the youth to major towns in the country in search of easy employment opportunities such as petty trade in the informal sector; however, this is not unique to the sub-county but a general problem facing the entire district.
- d) The sub-county had a problem with tsetse fly infestation in the past, which forced people to migrate.

**Map 2: Mpara Sub-county, Kabarole District**



## **B. ETHNICITY, CONFLICTS, AND PASTORAL RESOURCES**

There are five dominant tribes in Mpara Sub-county: Batoro, Bakiga, Bahima, Zairois and Rwandese refugees. These five tribes can be classified into two broad groups on the basis of their resource-use interests. The first group is that of cattle keepers (Rwandese refugees and Bahima) and the second group is that of crop cultivators (Zairois, Batoro, and Bakiga). Both groups, however, use the same natural resources and one would wonder, hypothetically, whether conflicts and mismanagement of pastoral common property resources arise from lack of coordination due to differences in ethnic background and different interests in natural resource use. The investigations of the RRA revealed that divergence in tribal background is not a sufficient issue by itself to cause conflicts or mismanagement of pastoral common property resources. Different tribes can happily co-exist without much problem; for example, the Bahima, Rwandese, and a few crop cultivators keeping cattle freely graze and water their animals together whether in the refugee settlements, in the game reserve, or elsewhere. Hence, if there are any conflicts or mismanagement of communal resources, the cause mainly originates, though not exclusively, somewhere other than on differences in ethnic background.

The RRA identified the following factors, which are subject to in-depth investigation in the second phase of the study, as some of the causes of conflicts and mismanagement of pastoral common property resources.

- a) The mixture of people with different resource-use interests all using the same resource base: i.e., people with a crop-cultivation background (particularly the migrant encroachers) mixed with people who have a cattle-keeping background (particularly the Rwandese refugees, and Bahima). The crux of the matter appears to be lack of coordination of the use of common resources. This concurs with Lawry's (1990) observation that "collective action will be more difficult to achieve where interest in the resource as a source of income varies, or where resource-use strategies differ significantly." Kyaka 1 Refugee Settlement, covering Kalwenyi and Bugido Parishes of Mpara Sub-county, is a good study area for investigating this problem. Notes on this problem are presented later in this text under a separate section (see section II.F on Encroachment on the Settlements).
- b) The population explosion of both human beings and animals is partly responsible for the mismanagement and eventual degradation of pastoral resources particularly in Kyaka 1 Refugee Settlement camp.
- c) Illiteracy and/or lack of awareness among pastoralists is suspected to contribute to the mismanagement of pastoral resources.
- d) The pre- and, until recently, post-independence policies of the "trickle-down" approach to development instead of "bottom-up" participatory approach have also played a part in the mismanagement of pastoral resources as resource users (cattle keepers) were not involved in the initiation of pastoral development projects like dips and dams. Hence, there is a complete lack of a sense of ownership and, therefore, a lack of acceptance of management responsibility among the pastoral communities. Worse still, when the Veterinary

Department's role towards the **management and maintenance** of dips and dams weakened during the years of political turmoil **in the country**, it never handed over the facilities to the community. Hence, these facilities **continued** to be viewed as the responsibility of the department, but not of the users.

### **C. LAND TENURE AND LAND USE IN MPARA SUB-COUNTY**

Kyaka County has three land tenure types: freehold, given to the chiefs by colonialists during the 1950s; leasehold, particularly for ranch development; and customary tenure on public land, on which the majority of people are settled. Mpara Sub-county is primarily public land with a few pockets of leased land for ranch development. With the exception of a no-man's land between Kyaka 1 and Katonga Game Reserve that is grazed on as open access, every bit of land in Mpara Sub-county is claimed. All land is individualised (with or without title) by private individuals settled customarily, or by government institutions such as UNHCR (Kyaka 1 and Kyaka 2 Refugee Settlements), and the Katonga Game Reserve controlled by the Game Department. Communal ownership of land as a "common property," as in the northern region of Uganda or Rwebisengo Sub-county in Bundibugyo District, does not exist in Mpara Sub-county.

Generally, it is estimated that two-thirds of the land in Mpara Sub-county is used for grazing, while one-third is under crops. Although households in all five parishes in Mpara Sub-county participate in both activities, investigations revealed that the parishes differ in the concentration of one type of activity or the other. For example, Kalwenyi, Bugido, and Kijongobya Parishes are more specialised in cattle keeping than crop cultivation, while in Kisambya and Rwahunga Parishes crops predominate. All government institutions (Kyaka 1 and Kyaka 2 Refugee Settlements, and Katonga Game Reserve) are located in the three cattle-keeping parishes. A brief discussion of these institutions appears later in this report.

### **D. ECONOMIC ACTIVITIES**

#### **1. LIVESTOCK**

The major source of income in Mpara Sub-county is livestock keeping, though the main purpose for keeping livestock is subsistence. According to a 1991 vaccination census, the sub-county has a livestock population of 55,443 cattle, 29,582 goats, 12,238 sheep, and 989 pigs. Unfortunately, the livestock sector is faced with several problems, particularly relating to the marketing infrastructure:

- a) Grazing areas are remote and somewhat inaccessible due to the lack of feeder roads and bridges. For example, in Kyaka 1 Refugee Settlement the only motorable track from Kyegegwa trading centre has its terminal at the settlement head office, which is located at Kazinga in the northern section of the settlement. From there southwards, through the communal grazing areas down to Katonga Game Reserve, there are only cattle tracks with gully-eroded pot holes not even motorable by a 4-wheel drive vehicle.
- b) At the time of the study, the only cattle market in the sub-county was still closed due to a Contagious Bovine Pleuro Pneumonia quarantine, which has been in effect for two years.

The vaccination program against **this disease** by the Veterinary Department failed to accomplish its task primarily **due to two factors**. First, cattle keepers refused to cooperate as this was a **cost-sharing exercise** in which they were expected to contribute Shs 150 per animal vaccinated, **as opposed to past vaccination programs** which were free. Most cattle keepers interviewed expressed indignation towards the National Resistance Movement for introducing a fee on vaccinations. Second, the seasonally migrant Bahima from Mbarara District destroyed the effectiveness of the struggle to eliminate the epidemic since their continual movement aided in transferring the disease throughout the area.

- c) Poor prices are a hindrance to improved production. Owing to the inaccessibility of the area and the quarantine, cattle traders have taken advantage of the situation to pay low prices for the animals. For example, a 300kg bull that originally sold for Shs 200,000 before the quarantine, now brought only Shs 150,000 or less at the time of this study.
- d) The lack of transport facilities and a functioning milk cooling plant has been a major disincentive for cattle keepers to improve dairy husbandry practices. Milk is wasted or sold locally at give-away prices. For example, milk was being sold at only Shs 100 per litre in the refugee settlements. The only milk cooling plant in the sub-county, located at Kyegegwa trading centre, has been out of use since the 1970s, allegedly due to lack of spare parts.

## **2. CROP CULTIVATION**

Crop cultivation in the sub-county is purely for subsistence purposes and yields enough food supply for the entire population, except during severe droughts. Crops grown include: cassava, potatoes, millet, maize, beans, and groundnuts. Adequate food supply is sustained through a local bye-law, enforced by the RCs, which requires every adult family member to plant a garden, not less than 60x20 meters, of cassava, the staple food crop. This bye-law, however, is not enforced in the settlements due to the limited amount of land allocated to refugee families. The refugees, therefore, heavily depend upon food supplies from outside the settlements but within the sub-county.

## **E. GOVERNMENT INSTITUTIONS IN MPARA SUB-COUNTY**

There are two types of government institutional landholders in Mpara Sub-county, two refugee settlements, and one game reserve, which are often referred to as external interventions on the rangeland. The view of pastoral areas being unproductive was advanced by Hardin (1968), whose solution to the "free ride" by individuals at public expense (the "tragedy of the commons") was the privatisation of property rights or a concerted government intervention, such as de-stocking programmes, to control range abuse. Kisamba-Mugerwa (1991), observes that this view that pastoral areas were idle and unproductive led to the establishment of state and private commercial ranches in Uganda, thereby displacing pastoralists from their traditional grazing areas.

On the other hand, there are many opinions about government intervention in natural resources managed communally that are contrary to Hardin's solution. Bromley and Cernea (1989),

placed primary blame of the mismanagement of natural resources on obtrusive state action, where states have undercut supposedly viable local common property management systems by asserting central government rights over natural resources. Niamir (1991), also argues that such external interventions in Africa have led to rangeland mismanagement. She argues that the nationalisation of rangeland by the state effectively promotes legal "open access" to land and poses no restraints on crop expansion or abuse by herders, both residents and non-residents alike. Using this argument, one could conclude that the gazettement of Kyaka 1 Refugee Settlement in Mpara Sub-county ultimately led to encroachment on the settlement by individuals with a crop-cultivation background and the subsequent mismanagement of pastoral resources. This matter will be discussed later in this report.

## **1. REFUGEE SETTLEMENTS**

The two refugee settlements in Mpara Sub-county are named Kyaka 1 and Kyaka 2. The policy of the Uganda Government at the time of their establishment was to isolate refugees in remote locations as a measure to avoid intra-state problems that often arise from cultural, social, economic, and political integration with nationals, and also to avoid inter-state political problems with the neighbouring states from where the refugees originated (Nabuguzi 1993). Mpara Sub-county was selected for the home of these refugee settlements because it was remote, offering a suitable location consistent with the government policy, and because it was sparsely settled by a few Batoro and Bahima migrants, most earlier residents having fled the area due to tsetse infestation and leaving large amounts of empty land. Following the establishment of the settlements, these nationals were allowed to stay where they were but were not allowed to expand, nor even to lease the land which had become a property of UNHCR.

However, contrary to the UN "Convention Relating to the Status of Refugees," adopted on July 28, 1951, which gives refugees a legal status equivalent to that of nationals in order to preserve their basic rights, Uganda, like other developing countries, finds it difficult to fulfil the convention requirements (Kiapi 1993). Existing Uganda laws (Uganda Government, Control of Aliens Act 1964) deny refugees most of the rights of the UN Convention. For example, a refugee in Uganda cannot move outside the settlement without a moving permit, has no right to erect a permanent house, and has no right to lease, sell, lend, fence, or transfer his or her landholding (which only ranges between 0.5 and 3 hectares per family in case of Kyaka 1 and Kyaka 2 settlements). Thus, a refugee in Uganda lives under very insecure tenure.

### **Kyaka 1 Refugee Settlement**

Kyaka 1 Refugee Settlement, covering 54 square miles of Kalwenyi and Bugido Parishes, was gazetted in 1964 to accommodate the Rwandese refugees who were later joined by the influx of refugees from Zaire in 1983. Since 1987, however, the settlement has had a second influx of people, this time not refugees but encroaching migrants, from Kabale District and other parts of Kabarole District. Thus, there are five major tribal groups in the settlement: Batoro, Bakiga, Rwandese refugees, Bahima, and Zairois.

These five tribes can be classified into the two broad resource-user groups indicated above in section II.B. The first group are those tribes with a cattle-keeping background, the local

Bahima and Rwandese refugees. The **second group** are those tribes having a crop-cultivation background: the Batoro, Bakiga, and Zairois.

The southern portion of the settlement **bordering Katonga Game Reserve** (about 80 percent) was originally set aside for communal **grazing**, while the northern section (about 20 percent) was for homestead and crop cultivation. However, since 1987, the entire settlement, including the southern portion reserved for grazing, has been encroached upon by migrant crop cultivators and has had a tremendous impact on pastoral resource use and management (as discussed in section II.F). Kyaka 1 Refugee Settlement has only one communal dam at Bijigira and three communal dips, all of which are not functioning.

At the time of the research team's visit, a survey of the settlement was about to be undertaken but only targeted eight instead of the original 54 square miles. Critiques of such a reduction of the settlement attributed this move to the government's political drive to favour the encroachers, who were nationals, over the refugees. Inevitably, this land squeezing combination of encroachment, size reduction, and the increase in animal and human population is leading to rangeland degradation on the settlement.

It is important to take note of the two common disputes on the settlement that result from differences in resource-use interests: conflicts between cattle keepers and crop cultivators resulting from the latter's encroachment on grazing land and animals straying into crop fields. The parishes of Kalwenyi and Bugido, which include Kyaka 1 Refugee Settlement, therefore, make a good study area to test the hypothesis that the mixture of people with different ethnic backgrounds and different resource-use interests may lead to the mismanagement and degradation of pastoral common property resources.

### **Kyaka 2 Refugee Settlement**

Kyaka 2 Refugee Settlement was established in 1983, covering 230 square kilometres in the parishes of Kisambya and Kijongobya in Mpara Sub-county and Kabwezi in Kyegegwa Sub-county. This settlement, like Kyaka 1, had two types of refugees at the time of this study: Rwandese cattle keepers numbering about 8,000, and Zairois cultivators numbering about 4,700.

Unlike Kyaka 1, however, Kyaka 2 has not been heavily encroached on by nationals for two main reasons:

- a) The settlement was surveyed, unlike Kyaka 1 which had only a gazetted status, and, therefore, there was no excuse for encroachment on the pretext of the lack of boundary marks.
- b) The settlement borders Kabamba army barracks in Mubende District, and nationals avoid settling near army barracks for fear of occasional harassment by soldiers.

The only type of encroachment that was reported to have taken place in Kyaka 2 was that of cattle keepers from Bushenyi District who encroached on several villages (Luterwe, Katerwe,

Omukara, and Mugaju) in Kijongobya Parish. It was, however, alleged by some respondents that this case was simple to resolve as it involved only cattle keepers, who are easier to evict than cultivators once they have established crop fields. Since the boundaries of Kyaka 2 were precisely marked, it is relatively easy to deal with encroachers.

Kyaka 2 does not presently suffer from problems arising from differences in communal resource-use interests between cattle keepers and crop cultivators. As pointed out above, the lack of encroachment by migrants with a crop-cultivation background has not increased pressure on the land. Unlike Kyaka 1, cattle keepers in Kyaka 2 do not graze in the Game Reserve, as there is enough pasture on the settlement. They only leave the settlement to look for water either from Kabamba army barracks or the Katonga River during the dry season.

There is, however, a growing threat of environmental degradation if Zairois refugees are not stopped from cutting down the natural forests in the settlement. The research team observed that new refugee arrivals from Zaire had started chopping down forests for crop cultivation, fire wood, and building materials.

## **2. KATONGA GAME RESERVE**

Katonga Game Reserve, gazetted in 1964, is located between the Katonga River and Kyaka 1 Refugee Settlement. The reserve occupies a lowland with excellent palatable pastures in the parishes of Kalwenyi and Bugido. The reserve is estimated to be about 220 square miles. This is just an estimate by the authorities because recently the reserve increased its size but no actual survey was carried out.

Following the re-demarcation of the reserve, it was estimated that between 35 and 45 pastoral families were enclosed within the reserve boundaries, thereby becoming permanent residents of the reserve. Despite their customary right to the land, it was reported by some respondents that these pastoral families were being threatened with eviction by the Game Department. Since they have nowhere to go with their large herds, it was alleged that they had to make bribes to stay within the reserve with every family residing in the reserve being charged an annual informal fee of Shs 10,000.

In addition to the permanent residents within the reserve, there are other encroachers, such as the Bahima migrants from Mbarara District, who seasonally migrate to the reserve during the dry season in search of water and pasture for their animals, and other seasonal migrants coming from Mpara Sub-county, particularly from Kyaka 1 Refugee Settlement. However, the recent land-squeeze in the settlement has led to seasonal grazing in the reserve becoming a permanent year round feature. Field observations indicated that refugees had established homes along the no-man's land between the settlement and the reserve from where they could easily enter the reserve during the day and return at night. It was also asserted by several respondents that, like the pastoral families resident within the reserve, whoever grazes in the reserve, though not staying there, has to pay an informal fee of about Shs 5,000 per 10 animals per month to Game Department personnel; otherwise, entry will be strongly resisted.

The Game Department, however, denied the accusation that they impose an informal fee on such encroachers. Their argument was that they were just waiting for a government directive either to evict the encroachers or to formalise their status. Although any form of human activity in the reserve is illegal, the Game Department fears to evict the encroachers, as this would have political repercussions which they are not prepared to shoulder. However, it would appear that even if there were no political implications, the Game Department would still find it very difficult to make a successful eviction due to their logistical incapacity to patrol the reserve. For example, at the time of the research team's visit, the Game Warden did not have any means of transport at the station.

Sympathisers of pastoral encroachers, particularly from the Veterinary Department, envisage a difficult situation should government finally decide to evict the encroachers. The refugees will have nowhere to go with their great herds as the settlement has already been heavily encroached on by nationals with a crop-cultivation background, leaving very little land for grazing. The research team had the impression that the encroachers interviewed are not willing to leave the reserve unless an alternative is put in place. Recently, according to the Game Department, the Ranch Restructuring Board<sup>2</sup> began to register all the encroachers within Katonga Game Reserve for possible resettlement elsewhere.

## **F. ENCROACHMENT ON KYAKA 1 REFUGEE SETTLEMENT**

### **1. WHY ENCROACH ON THE SETTLEMENT?**

At the time Kyaka 1 was established, the local populace was not bothered about refugees occupying large amounts of land in the area, as they expected this to be a temporary measure. However, realising that the refugees had stayed longer than expected, some nationals, particularly those with a crop-cultivation background, started encroaching onto the settlement beginning around 1987. The investigations of the RRA identified several factors responsible for this encroachment.

- a) The population explosion and resulting land-squeeze, particularly among the Bakiga from Kabale District, played a major role as a "push" factor towards encroachment on what was perceived to be idle land to which they felt they had birthrights as nationals.
- b) The government's decision to evict encroachers who were mostly Bakiga from Mpokya Game Corridor in Rwimi Sub-county forced them to look for alternative areas for resettlement, whereby Kyaka 1 Refugee Settlement fell victim.

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2. Following a "Report by the Commission of Inquiry into Government Sponsored Ranches" that identified, among other things, a severe resource-use tension between ranchers and pastoral squatters, the government created a "Ranch Restructuring Board" with three major functions: a) to revoke government leases on ranches not developed in accordance with allocation conditions; b) to restructure and sub-divide the existing ranches into appropriate units; and c) to resettle the squatters within the areas covered by the ranches in an orderly and harmonious manner.

- c) Free and/or cheap land allegedly sold by some government officials and resident nationals within the settlement played a role as a “pull” factor for the land-hungry encroachers. In addition to the land-hungry encroachers, it was reported by some respondents that illegal sales of cheap land on the settlement attracted speculators and/or developers who sold small pieces of land very expensively in heavily populated areas like Ibanda County in Mbarara District and moved to the settlement where they bought large parcels of land very cheaply, some of which were enclosed.

## 2. OVERALL EFFECTS OF ENCROACHMENT

There are several effects of encroachment.

- a) Resource-use conflicts arose between migrant encroachers with a crop-cultivation background and refugees with a cattle-keeping background. Conflicts mainly arise out of animals straying into crop fields, resulting in unrealistically heavy fines imposed by RC courts on pastoralists.
- b) As confirmed by the Veterinary Department, the increasing amount of crop cultivation by the encroachers has limited the amount of land available for grazing. Rotational grazing could no longer be practised, and cases of overgrazing on the settlement have become more common than ever before, particularly during the dry season due to confinement of animals in particular locations. Actually, observations indicated that the settlement had been split into pockets of grazing land interspersed between crop fields.

In addition to this shortage of pasture caused by the imposition of a cropping system, a second external interference that aggravated the problem was the introduction of enclosures for individual grazing purposes, on about six encroached parcels of land, which denied pastoralists further access to communal pasture.

- c) Access to communal pastoral resources, such as dams and dips, was cut off as cropping fields were established around these facilities. The observation made at Bijigira grazing area is a good example that illustrates the effect of opening crop fields around communal facilities.
- d) Cattle keepers with more than an average of 10-20 animals migrated southwards with their herds and settled either in Katonga Game Reserve or along the no-man’s land between Katonga Game Reserve and the settlement from where they could easily encroach on the reserve for pasture and water from the Katonga River. Although migration southwards was a rational approach to minimise resource-use conflicts on the settlement between pastoral refugees and national encroachers, this was just a piece-meal solution as it sparked off another resource-use conflict in the Game Reserve between the Game Department and the pastoral refugee encroachers.
- e) The illegal purchase of land outside the settlement to escape the land-squeeze on the settlement became more common. These illegal acquisitions were particularly common in Masaka and Mubende Districts. The process is simple. A pastoral refugee first applies for

a moving permit from the Settlement Commandant and Veterinary Office to move with his animals. In 1991, nine refugee families with 743 heads of cattle were given moving permits. Many others, however, were reported having moved without permits, and, therefore, are out of record. After the move, the migrant normally hires land in the new area for grazing but may eventually purchase his own land and settle permanently. The final result is that a number of refugees have been informally naturalised, contrary to the law governing refugees.

- f) The encroachment on the settlement made the pastoral refugees more conscious of the insecurity of their tenure than ever before and led to the development of a more carefree attitude toward the management of any common property resource on the settlement.

### **3. GOVERNMENT AND ENCROACHMENT**

The Government's reaction toward encroachment leaves a big question mark as to whether it supports or condemns encroachment by nationals. For example, the original size of the settlement at the time of its establishment was supposed to be 54 square miles. However, at the time of the RRA, a survey of the settlement was about to be undertaken but targeted only 8 instead of the original 54 square miles.

Some government officials argued that the purpose for surveying the settlement at this particular time was to halt further encroachment by nationals who used the lack of proper settlement boundary as an excuse for encroachment. While the objective of the exercise was good, the size of the settlement was being reduced tremendously despite the explosion of the population of both animals and humans on the settlement. Critiques of this settlement reduction claimed that the whole exercise had been carried out to favour and/or legitimise the nationals who had encroached on the settlement without giving any due consideration to the plight of the pastoral refugees and their great herds.

In the opinion of the refugees, the reduction of the settlement is an official recognition of the encroachers and an acceptance that they stay where they are. That being the case, it is the impression of this report that the precise reduction of the settlement to only 8 square miles will cause more havoc in terms of pastoral resource management and degradation. For example, if some communal dips and dams are left outside the new boundary of the settlement, it will be difficult to have access to these facilities, let alone manage them. Secondly, the reduction of the settlement directly translates into an acute reduction of pasture, as pastoralists will be strictly confined to the limits of the settlement boundary. Prior to the reduction of the size of the settlement, refugees could freely graze on uncultivated portions of land encroached on by nationals. However, following the new demarcation, it will no longer be possible for refugees to graze outside the settlement on land occupied by nationals without causing severe friction. Nabuguzi (1993) observes that by demarcating refugee settlements at the height of the disputes, it appeared as if government were ratifying its policy of sealing off, segregating, and isolating the refugees completely.

## **G. ACCESS AND MANAGEMENT OF PASTORAL COMMON PROPERTY RESOURCES**

### **1. PASTURE**

Although there is no land in Mpara Sub-county that is communally held, and every piece of land has an individual claim on it, management of pasture is very tricky as it alternates between private property and common property regimes depending on location and season. For example, on any individual holding, the grazing area around the homestead is managed as a private property. This grazing area is reserved for the household animals, which can't go very far to graze. These include calves and sick animals. However, pasture on any other part of the holding is managed as a common property with equal right of access to all cattle keepers irrespective of their ethnic background. Nevertheless, these communal grazing rights cease to function during the wet season should the holder of the land decide to open crop fields. In this case, property rights change from communal to private control. These changes in property regimes apply throughout the sub-county even on the refugee settlements, and the communities strictly adhere to them.

This variation in property regimes over space (location) and over time (season) observed in Mpara Sub-county concurs with the observations made by Bromley (1989):

Land and related resources in the rural sector are characterized by a whole complex of institutional arrangements that will vary across resources, and through seasons of the year. In some locations, or certain times of the year, these resources may be under the control of only one individual, or one household. When this is the case, their management resembles that which is pertinent to a variety of individual resources. In other locations, or at other times of the year, however, the management of some of these resources may transcend the nominal individual or household and involve instead a number of individuals or households.... What changes between different types of property regimes is the *scope* of the primary decision making unit.

Behnke (1991) advanced a "property rights analysis" economic model with regard to pastoral land tenure whose central theme is that:

Property does not consist of things or objects, but rather is the socially recognized right to possess the flow of benefits that arise from the control of things or objects. If property is conceived of as the legitimate control of a benefit stream, then it is also reasonable to treat the maintenance or establishment of such control as a productive activity fundamentally similar to other forms of economic behavior.... As an illustration, consider the situation common in agro-pastoral Africa in which households control separate arable fields and the harvest from their fields, but allow any livestock owner to pasture animals on these fields after the harvest is removed. The property rights model suggests that these arrangements will prevail whenever livestock feed is plentiful or when, for a variety of reasons, the value of crop residues is low. These arrangements will come under pressure if the value of crop residues increases, for example, due to changes which stem from the development of a new technology and the

opening of lucrative commercial markets.... Entrepreneurially, inclined individuals will be tempted to defy customary land tenure **understandings** and attempt to acquire control of this newly valuable resource.

### **Traditional Pasture Management Techniques**

It is difficult to identify any single traditional pasture management technique organised and adhered to by the community as a group. The only two traditional pasture management techniques observed by the research team were arising out of individual decision-making, but aggregatively contributing to pasture management by the entire pastoral community. These are:

- a) Seasonal migration to Katonga Game Reserve during the dry season permits the regeneration of pasture on the settlement, as with any rotational grazing practice. This is a type of traditional pasture management technique that is rational and essentially based on the individual's decision and local knowledge of whether, when, and where to migrate. Cattle movement as a traditional pasture management technique is, however, failing to work in Kyaka 1 Refugee Settlement due to the encroachment of nationals with a crop-cultivation background on land identified for communal grazing. These encroachers have opened crop fields almost everywhere, making it difficult for refugees to move their animals, and has resulted into overgrazing on the settlement, particularly during the dry season.
- b) Bush burning during the dry season is a second rational traditional pasture management technique practised by individuals in Mpara Sub-county. Pastoralists believe that bush burning during the dry season allows a vigorous growth of new pastures when the rains come. However, the effectiveness of this management technique depends upon rains coming in time. If there is any delay or failure in the rains, bush burning may result in bare ground, which is conducive to soil erosion both by wind and rain when the rain finally does come. Bush burning, therefore, may either have positive or negative effects on pasture management.

This individual decision-making in common property resource management observed in Mpara Sub-county has also been noted elsewhere in Africa by Bromley, Gulliver, Lawry, and Reisman. Bromley (1989), in his article on property relations and economic development, observes that successful common property regimes are characterized precisely by the existence of individual rights. In a study of the Jie and Turkana pastoral tribes of East Africa, Gulliver (1995) notes that although pasturage is common to all members of a tribe, movements are primarily made at the discretion of the owner of the herd:

Each man attempts to provide for his herd the best he can in the light of his experience and needs of his animals. Hence, one man may consider that his present area can no longer adequately support his animals and he moves to another area believed to be more satisfactory; while another man, although he realizes the poverty of the natural resource in the area, does not consider there is any sufficient advantage in moving.... In all this there is no formal pattern

of pastoral organization and no **controlling authority** to override personal choice and inclination. It is purely a matter of the **decisions of individuals**.

Lawry (1990) also asserts that traditional **authority** over resources rarely extends to intensive control over individual use and that **centralised control** over livestock and range management has generally not been a feature of **pastoral societies** in Sub-saharan Africa. He makes two observations on Sahelian West Africa and **Kenya Masailand**:

Few pastoral societies are in fact so hierarchically organized. On the contrary, the more likely situation is that there is no individual who has the authority to tell any other member of his community how the latter should handle his animals. Many pastoral societies have no centralization of managerial decisions relating to access to grazing land and water, and therefore herd size, composition, and movements....

While Masai have traditionally worked out arrangements for sharing grazing and herding tasks, traditional management practices in fact entail high levels of individual autonomy in range use and livestock management.

Reisman (1978), in a study of Fulani range management, suggests that independent opportunistic decision-making is essential to successful livestock production in the Sahel. "We have seen that land is best utilized when people and cattle spread out to the maximum degree, and for this to happen, people have to be relatively independent of one another, able to make their own decisions and take their own risks and like being in that situation."

### **Modern Pasture Management Techniques**

Pasture improvement in Mpara Sub-county does not exist except on a few leased ranches where fencing and the removal of unwanted species of trees like Acacia has been undertaken. There are several reasons why pastoralists have not made pasture improvements:

- a) Most of the respondents, including those who appeared wealthy in livestock, claimed that they were too poor to afford the expenses involved in pasture improvement.
- b) Pastoralists in Mpara Sub-county, like elsewhere, were found to have a stronger social attachment to numbers than quality of animals. Therefore, the improvement of pastures might not be ecologically viable unless pastoralists change from a social to an economic attachment to animals as their main objective. This would mean keeping fewer but better quality animals which can be sustained on the limited improved pasture. It would also mean changing the lifestyle of pastoralists and potentially changing the pastoral tenure relationships from communal to individualisation.
- c) Insecurity of tenure, due to limited rights among the refugees, discourages any form of pasture improvement, while in reality, according to the Settlement Commandant, some of them have the capacity to develop.

While overgrazing is one of the indicators of poor pasture management practice, it was not observed in Mpara Sub-county, except on **Kyaka 1 Refugee Settlement** during the dry season, despite the prevalence of communal **grazing practices**. Two factors account for lack of overgrazing outside **Kyaka 1 Refugee Settlement**:

- a) The population is relatively sparse, and there is still enough land for communal grazing;
- b) Water points in the sub-county dry up very quickly during the dry season. The soils are sandy and lose moisture very quickly, thereby forcing pastoralists to move their animals southwards to **Katonga Game Reserve** where there is an abundant water supply. This early migration in search of water saves the sub-county from being excessively overgrazed.

## **2. WATERING POINTS**

Mpara Sub-county has two major sources of water. The **Katonga River**, which is the borderline between **Kabarole** and **Mbarara Districts**, is the only natural source of water, and there are several man-made water points throughout the entire sub-county, including water dams, water tanks, and other shallow wells. These water dams and tanks were constructed by the **Veterinary Department** during the 1960s and 1970s while shallow wells are periodically constructed by the communities either on an individual or a group basis, depending on the number of animals involved. If an individual has a big herd, he would rather have his own shallow well. On the other hand, if a group of people have a few animals each, they would rather construct one well for the group's use. Owing to ecological factors, however, most of the man-made water points dry up very quickly during the dry season.

Use rights and management practices vary with respect to these water sources. Everyone, irrespective of his or her ethnic background, has right of access to any natural water point such as the **Katonga River** and government dams/tanks. However, access to man-made shallow wells is denied unless with prior permission from the owner(s). There are no specific community management practices for natural water points such as the **Katonga River**. Man-made water points, however, need regular care if they are to keep functioning. While "shallow wells" are well managed by their owners, no one takes responsibility for the management of the dams, all of which were unusable at the time of the **RRA**. Even the **Veterinary Department**, which was responsible for the management of the communal dams, failed to fulfil its obligations, ostensibly for reasons beyond its control, among which (according to **Veterinary Staff**) was the breakdown of the economy during the period of political turmoil in the country. This economic breakdown is directly translated into budgetary constraints, which lead to the following failures to:

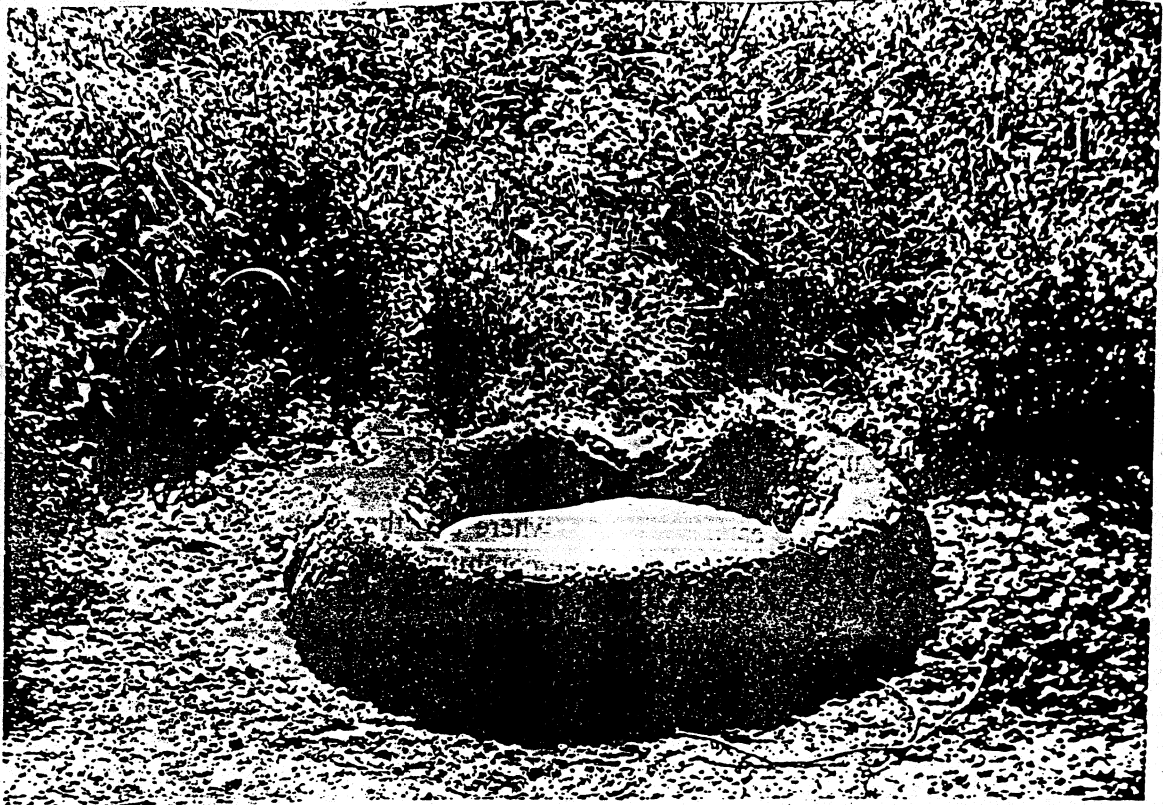
- a) de-silt the dams;
- b) build fences around the dams to prevent animals from drinking direct from the water source, construct drinking points, and provide pumps to move water from the dam to the drinking points (where pumps were installed, they were stolen); and
- c) employ dam attendants to look after the dams including the pumps that were to be used in pumping water from the dams to concrete drinking points.

In addition to the weaknesses of the **Veterinary Department**, there were other factors responsible for a lack of initiative among the **user communities** to manage the dams. First, the failure to involve the communities (**beneficiaries**) in the siting and inception of the facilities had a negative impact on the users who never **perceived** the dams as their own and never bothered to look into the management aspects of **the facilities**. Secondly, the Veterinary Department failed to formally hand over the facilities to the users when it started experiencing financial problems during the period of political anarchy, and, therefore, the communities continued to view the facilities as belonging to the government. Lastly, because communal dams are only used as a means of last resort during the dry season when shallow wells dry up, no one has a keen interest in maintaining them, particularly since most of them also dry up during severe droughts.

For these reasons, the communities using the dams have very few community management practices to sustain these facilities. Perhaps, the only local practice commonly enforced by the communities is strict adherence to the rule of not watering animals directly from the dam. Communities water their animals from troughs made locally using timber and mud, and known as *ekibumbiro* or *obwato* (see figure 1). Depending on the number of animals owned, an individual will construct his/her own trough, or several members of the community will group themselves together and construct one trough for communal use by the group. Hence, several local troughs were observed surrounding a dam depending on the number of people and animals using it. The trough must be smeared with mud or clay daily in order to prevent water from being absorbed into the ground. This activity is done in turn by group members if the trough is owned by a group. After plastering the trough with mud or clay, water is then collected by bucket from the dam and poured into the trough for the animals to drink.

Although the above community management technique saves the dams from further silting, it is most probable that this is an indirect effect of the practice. The primary objective for adopting this technique, as reported by pastoralists at Nsweswe Dam, is to protect the animals from accidentally falling into the dams, which happen to be very deep. Whatever the intention, the use of local troughs is a rational management technique affordable by the communities, and appropriate, given that hygienic concrete watering points are non-existent in the sub-county.

**Figure 1: A local trough on the edge of Nsweswe dam**



### **3. CATTLE DIPS**

Communal dips were constructed by the Veterinary Department almost at the same time as the dams were constructed in 1960s and early 1970s. There are four communal dips in Mpara Sub-county, three of which are in Kyaka 1 Refugee Settlement and one outside the settlement. Although access to the dips is open to every cattle keeper, none of the dips was functioning due to the following reasons. First, after their construction, it was the responsibility of the Veterinary Department to maintain the dips, including emptying them, and to provide acaricide to farmers at subsidised rates. The department failed in these responsibilities as it had failed to maintain the dams. Secondly, the user communities failed to take over the facilities when the Veterinary Department was lax because, as in the case of communal dams, the user communities did not participate in the siting and inception of the facilities and, therefore, did not perceive them as theirs.

Like dams, dips are a component of modern cattle management. Traditionally, however, animals are not dipped or sprayed against ticks, since ticks are not perceived to be a serious problem to the indigenous animals, which have acquired some level of natural immunity. Some

cattle keepers admitted having used “hot metals” to burn the affected area, as a traditional curative method for several cattle diseases, including diseases caused by ticks. One Veterinarian observed that while some cattle keepers succeed in using this traditional method others end up losing the animals.

Although dipping is recommended as the best tick control method, most respondents interviewed preferred spraying for the following reasons:

- a) Dips are very expensive to maintain and are periodically closed for servicing. “Cattle crushes,” on the other hand, are cheap to maintain as they are made up of local timber and usable all year round.
- b) Cattle crushes can be established any where and therefore sited conveniently for the user(s) unlike the communal dips which are centrally located and may, therefore, be remote to some users.
- c) Dips are perceived by pastoralists as spreading contagious diseases such as foot and mouth disease due to the communal dipping of diseased and healthy animals. Cattle keepers, therefore, prefer using cattle crushes. Nevertheless, as observed by several veterinarians, avoiding communal dipping *per se* does not prevent the spread of contagious diseases, as they can still be contracted through the communal grazing and communal watering of animals.
- d) Cattle crushes are multi-purpose: they can be used for spraying animals against ticks, for vaccinations, and for branding animals against thefts and ownership disputes.

## **H. SUMMARY**

- a) Although Mpara Sub-county has rangeland characteristics and was settled by semi-nomadic pastoral communities, land, as a resource, is not a common property. All land is owned by individuals and institutions like UNHCR and the Game Department. However, a pastoral population exists because pasture, wherever it exists (except around the homestead), is communally accessed as a common property. These common property regimes, however, have no boundaries as they can alternate with private property regimes over space and over time on the same landholding.
- b) The fact that Mpara Sub-county has a mixture of people with different ethnic backgrounds is not a major factor by itself causing in conflicts and/or mismanagement of pastoral common property resources. The main cause of conflicts and/or mismanagement of pastoral resources originates, though not exclusively, from several other factors, such as the mixture of people with different resource-use interests (cattle keepers versus crop cultivators), the explosion of human and animal population, illiteracy and/or lack of awareness, and colonial and post-colonial policies of a trickle down instead of bottom-up approach to development.

### III. A RAPID RURAL ASSESSMENT OF PASTORAL GRAZING AREAS OF RWEBISENGO SUB-COUNTY, BUNDIBUGYO DISTRICT

Rwebisengo Sub-county is located in Ntoroko County, Bundibugyo District, bordering Zaire along the Semliki River. The sub-county has four parishes: Butungama, Rwebisengo, Bweramure, and Rwangara, which stretch from the Semliki River towards the Toro Game Reserve (see map 3). The total sub-county area, estimated to be 300 square miles, is a rift valley lowland plain on which about 120,000 people are settled, with 50,000 head of cattle.

#### A. ETHNIC BACKGROUND

The sub-county is composed of people who originally migrated from Ankole, (Bahima and Bairu), Kasese (Basongora), Kabarole (Batooro), and Zaire. Despite this diversity, the residents of this sub-county are very accommodative and friendly toward each other, resulting in a high rate of intermarriage, and leading to a more or less homogenous society of residents called "Batuku." The Batuku speak Rutoro, as a result of this area having been under Toro Administration from pre-colonial times until 1974 when it became part of Bundibugyo District. A large number of Batuku have adopted cattle keeping, even though some of them came from a crop-cultivation background in their areas of origin.

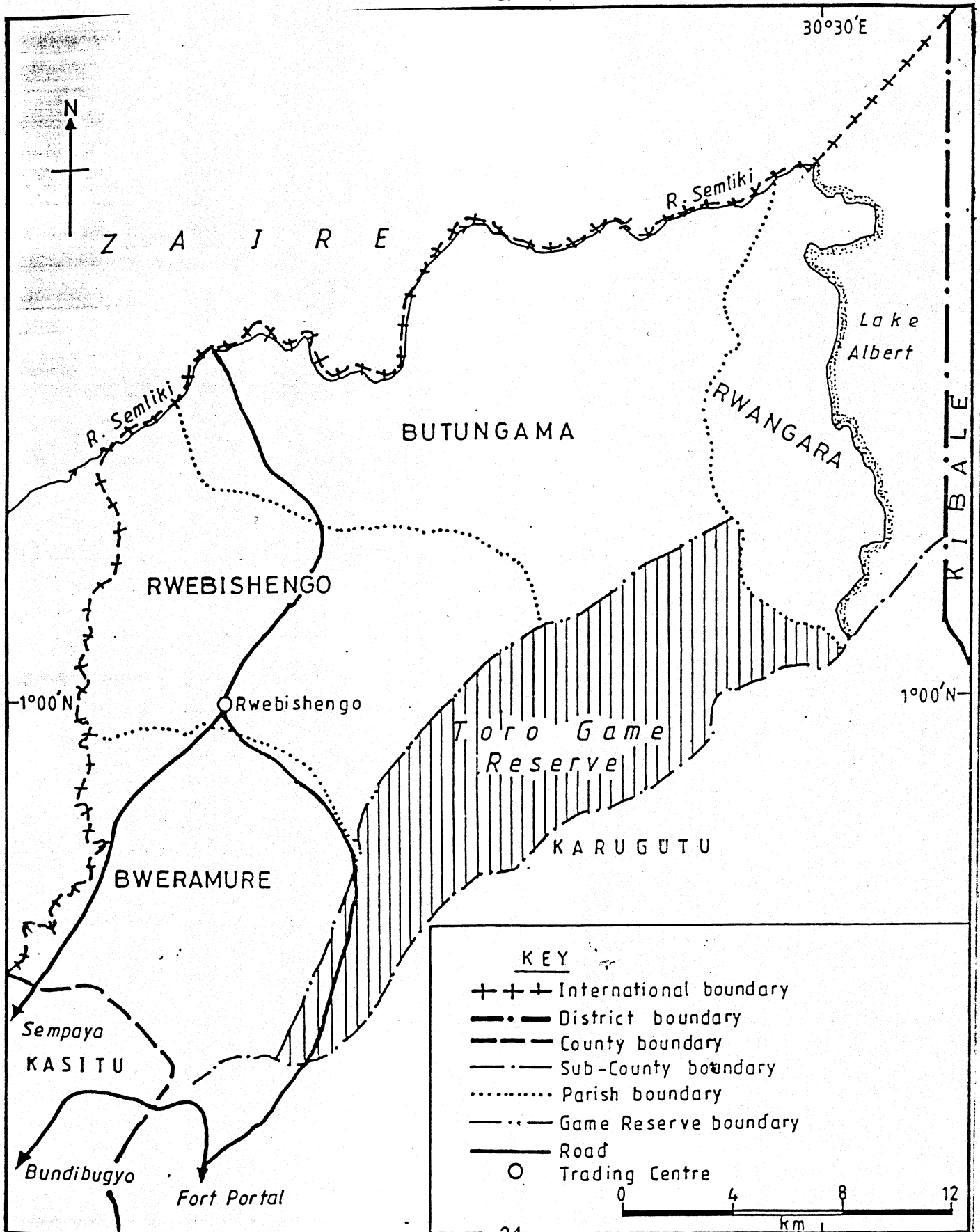
It is probable that the adoption of cattle keeping by these people is, *inter alia*, a result of the ecological factors and management practices in the sub-county, which are more conducive to cattle keeping than crop cultivation. For example:

- a) the water table is high, making it easy to dig shallow wells for watering animals;
- b) the high water table also results in the plain being flooded during the wet season, a situation that is not conducive to crop cultivation and/or plant survival;
- c) the underground water itself is salty, saving the farmers the cost of buying mineral salts for the animals; and,
- d) approximately 95% of the entire sub-county is a rift valley lowland plain covered with good palatable pastures. Consequently, local land use rules have designated this area strictly for communal grazing, leaving only 5% of the sub-county for crop cultivation and inevitably forcing tribes with a crop-cultivation background to adjust to cattle keeping.

All cattle keepers in the sub-county, even those who have a nomadic pastoral origin like the Bahima and Basongora, have sedentarized and built semi-permanent houses of mud and wattle with tin roofs.

This trend reflects some kind of development among the pastoral Batuku, in contrast to pastoral communities of Mpara Sub-county who remain semi-nomadic, living in temporary grass thatched houses.

Map 3: Rwebisengo Sub-county, Bundibugyo District



## **B. ECONOMIC ACTIVITIES**

Although cattle keeping is primarily for **subsistence** purposes, as is the case in Mpara Sub-county, it is also the major economic activity in the sub-county. According to a 1991 vaccination exercise, the cattle population is estimated to be 50,000, with an average monthly sale of 600 animals. The mining of gypsum from the Kibuku mountain slopes in Bweramure Parish ranks second in terms of income generation, while fishing along the Semliki River and Lake Albert is third in importance, followed by trading (shop keeping). Crop cultivation does not feature at all as a significant economic activity. Crop cultivation is purely for subsistence purposes, with cassava (the staple food crop), maize, and beans being the principal crops grown. In spite of this, the sub-county has a "food security" problem due to limited land identified for crop cultivation, and food supply comes all the way from Bundibugyo, Fort Portal, and Zaire.

## **C. ACCESS AND MANAGEMENT OF PASTORAL COMMON PROPERTY RESOURCES**

### **1. LAND**

All land in Rwebisengo Sub-county is public land, customarily settled and managed communally. With the exception of one private ranch (Semliki Ranching Company) established in 1970s and occupying about 900 acres, all land is communally owned as common property of the Batuku community. Hence, every member of the community has equal right of access to land.

Several attempts have been made by the Veterinary Department, the management of the Butuku Cattle Market Cooperative Society, and even by politicians to educate the community on the advantages accruing to the individualisation of landownership and stock control. However, the communities have resisted all attempts geared towards individualisation of landholdings. This resistance can be attributed to several factors.

- a) Education. The illiteracy rate appears to be very high among the population, though this assertion requires statistical investigation. There are only two full primary schools and no secondary school in the sub-county. However, it may be argued that even if the level of education was much higher, the individualisation of land would still be meaningless to the pastoralists as long as animals continue being kept for subsistence needs, prestige, and social functions like marriage, which requires about 20 cows for a dowry.
- b) Equity. Even if the community members were able to perceive the advantages accruing to individualisation of land, it may be probable that they would still prefer communal ownership of land lest the rich, elites, and politically well connected individuals take advantage of privatisation to grab all the land, leaving the poor to starve. This fear was cited as one of the factors for retaining communal ownership of land in Rwebisengo Sub-county, despite the pressure on land resulting from the increase in human and animal population.

With regard to management, there are **two distinct** local land use rules commonly observed by the entire community.

- a) As stated earlier, approximately **95%** of the entire sub-county was designated for communal grazing. Anyone planting **crops in this area** is required to safeguard them from animals, which have right of access to **any piece** of land and graze randomly without any herdsman; otherwise, there is no case to answer should animals stray into the crop fields. Therefore, it is only the rich who can afford fencing their crop fields that participate in crop cultivation in the communal grazing areas. This policy has been very prohibitive towards the adoption of crop cultivation by the poor.
- b) The remaining 5% of the land, located on the periphery, was identified for crop cultivation. This is land along the Semliki River in the west, along the Kibuku mountain slopes (Bweramure Parish) in the south, and along the border with the Toro Game Reserve. Anyone wishing to keep animals in these crop-cultivation areas is obliged to guard them against straying into the crop fields.

## **2. DIPS**

There are six communal dips in the sub-county constructed by the Butuku Cattle Market Cooperative Society with some external assistance. Five dips were partly constructed with a government subsidy, while the sixth was partly constructed with assistance from the European Development Fund (EDF). It is important to note that here, unlike in Mpara Sub-county, the "users," through their cooperative society, were involved in the inception and financing of the dips, thereby instilling a sense of ownership among the user communities, rather than the mentality that dips were Government or EDF property. This approach has played a crucial role towards the sustainability of the facilities, and, while not perfect, all of them are in a good working condition, financed by the cooperative society to which every cattle keeper has a right to become a member.

The Butuku Cattle Market Cooperative Society was formed in 1956. The research team was unable to identify the reasons for its creation because of a lack of records and the inability to trace any of the members of the original executive committee. Current executives were unaware of the details surrounding the society's creation. Geography appears to be a major consideration. Physically, Rwebisengo Sub-county is remote from Fort Portal, which is the main outlet for livestock sales and source of livestock inputs. This necessitated the organization of a cooperative society whose major functions are to:

- a) market cattle through a controlled, centralised market and levy a fee (cattle commission) on every animal transacted through the market;
- b) manage and maintain the dips on behalf of its members; and
- c) make available livestock inputs. Recently, the society constructed a permanent building in Rwebisengo trading centre to serve as a veterinary drug shop.

Currently, the society has 400 registered members. The membership fee is Shs 500, plus one share of Shs 2,000 each. An additional contribution to the society revenue comes from the

cattle commission, which is Shs 1,500 **per animals** sold and Shs 800 per animal bought, totalling Shs 2,300 for every animal **going through** the cattle market. The cattle market operates on a bi-weekly basis, with an **average** of 600 animals passing through every month. The income earned from the cattle market **is used to pay the dip attendants**, cover the cost of emptying and refilling the dips, carry out **any necessary dip repairs**, and assist in infrastructural development projects, such as construction of the veterinary drug shop.

Despite the fact that all the communal dips are functioning, most respondents interviewed preferred using cattle crushes to dips for exactly the same reasons as in Mpara Sub-county (see section II.G.3.). Nonetheless, every cattle keeper has the right of access to the dips, irrespective of his or her membership affiliation, as long as he or she brings the necessary chemical (acaricide) to be able to maintain the recommended level of chemical concentration before dipping.

### **3. WATERING POINTS**

The Semliki River and Lake Albert are the only natural sources of surface water in the sub-county. Nevertheless, dams and/or water tanks are not necessary in this part of the district since the water table is very high, making it easy for individuals to dig their own shallow wells, which, unlike in Mpara Sub-county, do not dry up during the dry season. Cattle keepers also prefer underground water over rain water collected in dams because the underground water contains mineral salts. This is a blessing to cattle keepers who would have to incur expenses to meet the mineral requirements for their animals.

Shallow wells, unlike communal dams, cannot be communally accessed unless prior permission has been obtained from the owner(s). Individuals have their own shallow wells, which, being small facilities, are easily maintained by family labour without incurring any cost.

### **4. PASTURE**

Access to pasture is open to all members of the community. Due to the local land use policy, there is no organized communal grazing pattern. Animals graze randomly in the plains without any herdsman.

Of all pastoral common property resources in the sub-county, pasture appeared to be the most badly managed resource. Looking at the size of the sub-county in relationship to the population of both humans and animals, the sub-county appeared to be too small to accommodate such large stock numbers. It was reported by the Veterinary Department that overgrazing had become a persistent problem in the sub-county since the severe drought of 1983. It is, therefore, no wonder that overgrazing, reflected in the form of short grass and bare ground, was observed to be a more serious problem in Rwebisengo than in Mpara Sub-county. What was surprising, however, was the fact that the animals looked very healthy despite the large stock numbers combined with an apparent overgrazing. The RRA was not able to establish the facts behind this contradictory observation.

Bush burning, a traditional pasture management technique, was observed to be a common practice, but its effect was reported to be more disastrous than helpful. It has led to creation of

patches of bare ground resulting from the **failure of rains** to come at the expected time. In fact, the sub-county is only saved from **excessive soil erosion** by its topographic nature (flat rift valley basement). Owing to the above **potential problem**, the local communities are being discouraged, through the RCs and Veterinary Staff, from any further bush burning.

Given that the water table is very high, it was reported that during the wet season there is always a lot of stagnant water all over the plain. This flooding affects the availability of pasture if water persists for a long time as it did in 1961 when animals had to be moved to Toro Game Reserve for pasture.

## **5. MANAGEMENT PROBLEMS OF PASTORAL COMMON PROPERTY RESOURCES**

Four major problems can be identified with regard to pastoral common property resource management in Rwebisengo sub-county.

- a) Overgrazing due to the overstocking of animals has led to the death of all good palatable pastures in the sub-county, as reported by the Animal Husbandry Officer in charge.
- b) Dips are very expensive to maintain. For example, the executives of the cooperative society reported that it costs roughly Ushs 2 million to empty and refill a dip. Hence, it is not uncommon to find dips that have not been serviced for long periods because of the lack of sufficient funds.
- c) Dips are difficult to manage. It was reported that some farmers bribe dip attendants to permit them to drive their animals through the dips without adding any more acaricide to maintain the recommended level of chemical concentration. This has a side effect in that ticks develop resistance to the chemical.
- d) Like all other organizations run on a cooperative basis in Uganda, it was alleged that the cooperative society suffers from mismanagement of funds. Otherwise, as some individuals argued, the income collected from the cattle market would, perhaps, be enough to maintain the dips in all aspects.

Several solutions to management problems can be suggested.

- a) Training. An extension programme should be developed to train cattle keepers in all aspects of animal husbandry practices, including management of dips, stock control, and pasture improvement. Visits to other developing cattle-keeping areas, such as Bushenyi District, where cattle keeping is based on the recommended management practices (though the ecological features might not be comparable), could be organized by the cooperative society for cattle keepers.
- b) Dip attendant salaries. The morale of dip attendants could be improved through better remuneration, which would avoid the corruption that is detrimental to the maintenance of dips.

- c) Financial management. Proper utilisation and accountability of society funds should be encouraged. While critics of the society management accused it of misusing the funds, the management itself asserted that the revenue earned from the cattle market was not enough to effectively maintain and manage the dips. It is, therefore, necessary to assess the financial position of the society with a view to finding a solution to sustainable funding of the society activities. One of the measures to improve the financial position of the society could be through increasing the cattle commission levied on animals transacted through the market. Dipping fees could also be charged to nonmembers in addition to the provision of dipping chemicals.

#### **D. SUMMARY**

- a) All land in Rwebisengo Sub-county is public land customarily settled, owned, and managed as a common property.
- b) There is no correlation between the mismanagement of pastoral resources and differences in ethnic or resource-use backgrounds. For example, the mismanagement of pasture due to overgrazing has its origin elsewhere, such as the local land use rules that sanction uncontrolled cattle movements and random grazing without a herdsman, human and animal population explosion, sociocultural constraints based on quantity rather than quality of animals, and illiteracy or lack of awareness. Also, mismanagement of communal dips has its origin in financial mismanagement of society funds and lack of motivation among dip attendants.
- c) The ecology, homogeneity of residents, and bottom-up approach appear to be the major pillars for some success of pastoral resource management in Rwebisengo Sub-county.



#### **IV. GENERAL DISCUSSION OF THE FINDINGS IN TERMS OF MANAGEMENT OF PASTORAL COMMON PROPERTY RESOURCES IN BOTH SUB-COUNTIES**

Overall, management of pastoral common property resources has been more successful in Rwebisengo than in Mpara Sub-county for the following reasons:

- a) Ecological factors favour Rwebisengo Sub-county in terms of pastoral resource management. For example, Rwebisengo has a high water table, making it easy to dig shallow wells which are usable all year round. In addition, the underground water has mineral salts in it, a condition that encourages the communities to care for their water points jealously. Alternatively, in Mpara Sub-county the water table is low, and shallow wells dry up very quickly when the dry season begins. Intensive care of these wells, therefore, ceases immediately when the dry season begins, and cattle keepers have to move their herds southwards to the Katonga River.
- b) In both sub-counties, the hypothetical view expressed in the background information to this report (section I) that differences in ethnic backgrounds may lead to conflicts and mismanagement of pastoral resources due to the lack of coordination, was not substantiated. However, the hypothetical view that management problems and conflicts may arise from differences in resource-use interests between residents with a crop-cultivation background and those with a pastoral background, proved correct in Mpara Sub-county but not correct in Rwebisengo Sub-county. This partly accounts for the success of Rwebisengo. Residents of Rwebisengo, though of different backgrounds, are not sectarian or discriminative among themselves. This co-existence has led to inter-marriage, resulting into a more or less homogeneous society. Pending further investigation, it is probable that this homogeneity facilitated the implementation of the local land use rules and management of the communal resources in the sub-county.
- c) The experience from both sub-counties reflects the need for a bottom-up as opposed to a top-down approach to development. The success story of Rwebisengo is partly attributed to the involvement of the grassroots, through their cooperative society, in the decision-making process affecting their socioeconomic welfare, unlike in Mpara Sub-county where there is a top-down approach.

Despite the above credits given to Rwebisengo Sub-county with regard to pastoral common property resource management, the sub-county appears to suffer very severe overgrazing due to over-stocking and exceeding that of Mpara Sub-county. Pasture management, therefore, might be an acute problem in a small sub-county like this one with so many animals, and yet with a community that has a very strong traditional attachment to communal ownership and management of pastoral resources. Overgrazing is made worse by the lack of herding, a traditional management practice, unlike in Mpara Sub-county. Sustainable use of communal pasture may not be viable in such a situation, where animals graze randomly without a herdsman directing them where and where not to graze.

In addition, Rwebisengo Sub-county has an **explosion** of human and animal population, despite its size. In such a situation, under the **view that increased population pressure brings forth a high degree of privatisation of land rights**, one would expect a breakdown of the communal management system, and its replacement **with privatisation** resulting from the pressure on the resources. Drawing from the **property rights analysis model** advanced by Behnke (1991), entrepreneurially-inclined individuals would be **tempted to defy customary pastoral tenure understandings** and, therefore, attempt to **acquire control over this scarce resource**, thereby excluding others. Surprisingly, there is an **inverse relationship** in Rwebisengo.

## **A. RESEARCH QUESTIONS**

Emanating from the findings, several research questions, which directly translate into research objectives, emerge for probing in the larger study on community management techniques of pastoral common property resources.

1. What factors led to the formation of the Butuku Cattle Market Cooperative Society? The RRA managed to identify only one factor (geographical location). There could be many others, not yet established, to explain why a society of this kind was established in Rwebisengo Sub-county but not elsewhere, such as in Mpara Sub-county, while both sub-counties were under the same local administration (Toro Kingdom) at the time the society was formed in Rwebisengo.
2. What coordination activities were adopted by the society, as a viable institution, to bring about cooperation and adherence to the rules among the resource users in Rwebisengo Sub-county? Although the RRA findings identified that this society facilitated a bottom-up approach to development, the RRA did not identify the means or mechanisms for decision-making, implementation, enforcement, nor for punishment of deviant behavior. Also, the RRA was not able to identify whether there were other viable traditional institutions, in addition to the cooperative society, involved in the management of pastoral resources. This is, therefore, a sub-component of this research question.
3. What is the level of inter-marriage between different ethnic groupings in Rwebisengo, and what factors facilitated this inter-marriage to bring about a homogeneous society? An answer to this question will, perhaps, shed light on why a homogeneous society was not able to evolve in Mpara Sub-county with more or less similar combination of tribes.
4. What is the level of adoption of cattle keeping among tribes with a crop-cultivation background, and what factors facilitated this adoption? Is this adoption a function of inter-marriage, ecological factors, local land use rules, sensitisation, or a combination of any of the above? An answer to these questions will help explain why there is no pastoral resource-use tension in Rwebisengo Sub-county, unlike in Mpara Sub-county.
5. Why is there a negative correlation between population pressure on the land and a sustained communal management system in Rwebisengo Sub-county? The RRA revealed that equity considerations among the pastoral communities was one of the factors for

retaining communal ownership of land despite the population pressure, but there could be other factors. For example, could it be due to illiteracy? Could it be due to lack of better alternative income-generating opportunities in the area that led to a sustained local management system, under which a large proportion of the community have their well-being dependent on communal grazing as a major economic activity? This research question will necessitate an investigation into the socioeconomic characteristics of the population.

6. What are the current problems (whether access, management, control, or environmental) facing the pastoral resources in the sub-county? An understanding of the problems will facilitate making policy recommendations for action.

As set out in the background information to the report (section I), the main purpose for carrying out this RRA was to gather general information to be used as a basis for the design of a more detailed study on the Management of Pastoral Common Property Resources. The above research questions, therefore, will be translated into research objectives for the larger study.



## REFERENCES

- Behnke, R.H. 1985. "Open-Range Management and Property Rights in Pastoral Africa: A Case of Spontaneous Range Enclosure in South Darfur, Sudan." *ODI Pastoral Development Network* 20f.
- . 1991. "Economic Models of Pastoral Land Tenure" Overseas Development Institute.
- Bromley, D.W. 1989. "Property Relations and Economic Development: The Other Land Reform." *World Development* 17, 6: 867-877.
- Bromley, D.W, and M. Cernea. 1989. "The Management of Common Property Natural Resources: Some Conceptual and Operational Fallacies." World Bank Discussion Paper No. 57.
- Ciriacy-Wantrup, and R. Bishop. 1975. "Common Property as a Concept in Natural Resources Policy." *Natural Resource Journal* 15: 713-715.
- Gulliver, P.H. 1955. *The Family Herds: A Study of the Two Pastoral Tribes in East Africa, The Jie and Turkana*. London: Routledge and Kegan Paul, Ltd.
- Hardin, G. 1968. "The Tragedy of the Commons." *Science* Vol. 162: 1234-1248.
- Kiapi, A. 1993. "The Legal Status of Refugees in Uganda: A Critical Study of Legislative Instruments." Paper Presented at a Workshop on *Uganda and Refugee Problems*, Makerere University, Kampala, Uganda.
- Kisamba-Mugerwa, W. 1991. *Rangeland Tenure and Resource Management: An Overview of Pastoralism in Uganda*. Kampala: Institute of Social Research, Makerere University.
- Lawry, S.W. 1990. "Tenure Policy Toward Common Property Natural Resources in Sub-saharan Africa." *Natural Resources Journal* 30: 403-422.
- Nabuguzi, E. 1993. "Refugees and Politics in Uganda." Paper Presented at a Workshop on *Uganda and Refugee Problems*, Makerere University, Kampala, Uganda.
- Netting, R. 1982. "Territory, and Property Tenure." In *Behavioral and Social Research. A National Resource*, edited by R.M. Adams, W.J. Smelser, and D.J. Treiman. Washington DC: National Academy Press.
- Niamir, M. 1991. "Traditional African Range Management Techniques: Implications for Rangeland Management." *ODI Pastoral Development Network* 31d.
- Reisman, P. 1978. "The Fulani in a Development Context: The Relevance of Cultural Traditions for Coping with Change and Crisis." Report written under USAID contract No REDSO/WA 78-138, Agency for International Development, Washington DC.
- Runge, C.F. 1981. "Common Property Externalities: Isolation, Assurance and Resource Depletion in a Traditional Grazing Context." *American Journal of Agricultural Economics* 62: 595-606.
- Uganda Government, Control of Aliens Act, 1964. Government Printer, Entebbe, Uganda.

