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**Grazing in the Bulilima Mangwe
Natural Resource Management Area**

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INTRODUCTION

This paper examines patterns of cattle grazing and ownership in a district in western Zimbabwe. It discusses some issues surrounding efforts to organise grazing in conjunction with the Natural Resources Management Project, CAMPFIRE. (Communal Areas Management Programme for Indigenous Resources) A major issue raised in this discussion is the problem of defining a community when dealing with a resource held under a common property regime like grazing. We point out that a close look at cattle holdings within the community, shows that there are many institutional actors and interests at work which need to be taken into account

The project is the Natural Resources Management Project (NRMP) funded by USAID¹ as part of a regional initiative in wildlife conservation. In Zimbabwe, the regional project is linked with the CAMPFIRE² programme which is a national initiative which attempts to put the management of wildlife in the hands of the communities who live in proximity to wildlife. CAMPFIRE seeks to direct the income from wildlife into local communities and households.³ Four districts are included in the NRMP/CAMPFIRE programme. The project discussed in this paper is in Bulilima Mangwe district.

The project seeks to ensure that local people derive maximum benefit from the land that they occupy which has suitable habitat for wildlife, as well as for livestock and agriculture. Organisational and infrastructural projects have been undertaken intended to ensure that grazing, browse and water supplies are provided and are appropriately divided between domestic and wild animals. It is based on the premise that livestock rearing and wildlife are compatible and that potential conflict between them can be sorted out by community mobilisation and the judicious provision of water and fences.

A major infrastructural focus of the project is the rehabilitation of the derelict Matengwe Dam (see Map 1). The earliest plan was to use fences to establish territory to the west of the dam as a wildlife area to support hunting and photographic safaris. Simultaneously, the dam area was to be designated for dry season livestock grazing, also regulated by fencing. The project provided livestock watering points by deepening pans in the populated ward area to reduce the need to depend on the dam area. It was planned to send water from the dam, through a refurbished canal system, westward to the wildlife area in order to reduce the dependence of wildlife on water in the dam, protecting the fence from being breached, especially by elephants.

¹ United States Agency for International Development project number 690-0251

² Communal Areas Management Programme for Indigenous Resources

³ For a description of the programme, see R B Martin, Communal Areas Management Programme for Indigenous Resources (Harare Department of National Parks and Wildlife Management, rev April 1986). For a discussion of the theories on which the programme is based, see M W Murphree, Communities as Resource Management Institutions, Gatekeeper Series, No 36, (London IIED, 1993)

This paper describes the history of the area and the background of the project. It examines patterns of cattle ownership and grazing. It outlines and discusses some of the issues which have arisen in the course of the implementation of the NRMP/CAMPFIRE programme in Bulilima Mangwe district.

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THE PROJECT AREA

Seven contiguous wards in the Bulilima Mangwe District are included in the Natural Resources Management Project. The area is shown in Map 1. The ward boundaries are shown in Map 2. The part of the area west of the established wards is where most of the large wildlife is and is also the area used for the seasonal grazing of cattle. The entire area lies in an agro-ecological zone called Natural Region IV. This region experiences fairly low total rainfall (450-650mm) and is subject to periodic seasonal droughts and severe dry spells during the rainy season. The rainfall is too low and uncertain for cash cropping, except in certain favourable localities where limited drought resistant crops can afford a sideline⁴.

The land is also home to a diverse population of wildlife which is a potentially viable non-consumptive tourism attraction and currently supports a viable safari hunting business. The area shares a boundary with Tsholotsho district to the north which has a similar project.

The Zimbabwe census of 1992 reports that the seven wards are occupied by about six thousand households⁵. There is a strong economic link to the urban labour economy with dependence on migration to urban centres for employment. Most of the migrants are men and most of the jobs are in South Africa. Few crops are sold. Most agricultural products are consumed at home. The district administrative centre is in the town of Plumtree, about seventy kilometres south from the centre of the seven wards.

The project area is inhabited by the Kalanga, Ndebele and San people. The Kalanga are the dominant ethnic group, although the San are the original occupiers of the land. A system of traditional authority exists with the Chief Nduna, Mpini as the highest authority. Under the chief are headmen abalisa, who are in charge of the sections of the area. The lowest form of authority is the sabuku, the headman who is in charge of a small area under a headman. The authority of the traditional authorities has been eroded by the introduction of modern bureaucratic forms of local government introduced after Zimbabwe's independence.

⁴ Zimbabwe land is classified into five regions based on natural factors like soil, climate and rainfall. Region 1 is good for specialized and diversified farming, Region 2 is an intensive farming region, Region 3 is a semi-intensive farming region, Region 4 is a semi-extensive farming region and Region 5 is an extensive farming region. See, Zimbabwe 1.1 000 Natural Regions and Farming Areas. Government of Zimbabwe, 1984 2nd Edition.

⁵ Census 1992. Zimbabwe Preliminary Report (Harare Central Statistical Office) The actual count is 6068

BACKGROUND AND METHODS OF THE STUDY

The authors are members of a university research unit which has responsibility for generating socioeconomic information about the areas included in the NRMP. We also have a general mandate to evaluate the progress of the programme in these areas. We have collected the information used in this paper since 1991.

Initial baseline information was collected through the use of a sample survey of 969 households in the first quarter of 1991. The other information in the study area has been collected through unstructured interviews, observation and inspection of documents between 1991 and 1993.

For the three months of the survey, both of us were resident in the area and assumed direct responsibility for the supervision of a team of six student interviewers. Either one of us (and often both) have visited and attended interviews in each of the forty two villages in the area.

In late 1993, with another researcher, we both spent two weeks on a field trip to conduct interviews with community leaders, traditional leaders, large cattle owners, ordinary citizens, community game scouts and political officials. The trip included observation of the proposed wildlife area, the rehabilitated dam and many grazing cattle. Between those times, the senior author⁶ visited the area and the headquarters of the district several times in the course of researching many topics. The second author⁷ has done the same on a much more limited scale.

In the course of our work, we have examined various project documents and correspondence in the offices of the Zimbabwe Trust, the organisation charged with project implementation.

We hasten to point out that we are aware of the shortcomings of the survey method as a data gathering technique. These shortcomings are especially acute when asking about livestock holdings among rural populations. Rural people in Zimbabwe have been victims of government sponsored destocking exercises in the past. Hence, they have a justified suspicion of outsiders who seek to gather information about livestock. Furthermore, informal cattle lending systems exist within the area which are difficult to pick out through a survey. Consequently, the information on livestock populations presented might be an undercount of the actual numbers that were there at the time. However, we trust the numbers to reflect the patterns of cattle ownership even if we fail to represent the actual numbers.

Furthermore, the survey was done in 1991. The following year there was a severe drought which decimated the livestock population in the area. Perhaps, the numbers have not been replenished to the earlier level. Again, the actual numbers may not be representative of the current population but we believe that the general pattern can be trusted.

⁶ Elias Madzudzo

⁷ Roland Hawkes

THE PRACTICE OF LAGISA AND THE LAGISA AREA

When people in Bulilima Mangwe are asked casual questions about where cattle are grazed and about how locations vary with the seasons and about the relation of grazing to the agricultural activities of the community, an idealised grazing schedule is often forthcoming. The pattern is roughly as follows

November to April	Cattle graze around the homesteads and locally. This is the season when there are rains and grass is plentiful. It is also the season when crops are being grown.
May to July	Cattle are turned into the fields after the harvest to eat the crop residue. The rains will have stopped. However, there will be water in local pans and the water table in the dried up rivers and streams will be high enough so that digging will reach it.
August to October	Cattle are grazed in the lagisa area. This is an area, usually at some remove from home, where there will still be grass and water in spite of the extreme dryness.

This scheme is an idealised pattern and actual practice is different for several reasons. Some of the reasons are: the differences in cattle ownership, location of herd owners and the availability of grazing and water supplies, the speed with which the people finish harvesting in their fields, and labour or financial resources to pay cattle herders in the lagisa area.

Lagisa⁸ is a term for a form of transhumance practiced by communal area people of Matabeleland. It involves the seasonal movement of cattle from one area to another, in order to extend the grazing range⁹. This method has historically been practiced by communities in Southern Africa.¹⁰ It is motivated by the need for reliable sources of water, and inter alia for nutritious grasses. Prescott describes the existence of sourvelds and sweetvelds in

⁸ Lagisa is a term which describes the seasonal movement of cattle into a particular grazing area. The area is known as emlageni. The practice is also common in neighbouring Botswana and is known as muraka. Cattle owners or employees move into the area and make a temporary shelter umlaga which they abandon at the end of the season. In the Bulilima Mangwe lagisa area some of these shelters are almost permanent. Owners return to these shelters each year. In conversation, people refer to these shelters by the name of the owner. However in the ideal pattern no individual except the community owns any part of the lagisa area.

⁹ J R V Prescott, "Overpopulation and overstocking in the Native Reserves of Matabeleland," *Geographical Journal*, 127, (1961), pp 212-25

¹⁰ See P S Garlake, "Pastoralism and Zimbabwe," *Journal of African History*. XIX, (1978), p

Matabeleland which influenced the pattern of inter-seasonal cattle movement in the district.¹¹ Lagisa is a form of land use which demonstrates the existence of advanced indigenous environmental and technical knowledge among the people of Matabeleland ¹²

The ideal management system of the lagisa area, and its relationship with the local (Kalanga/Ndebele) social system, is as follows. During the November to March rainy season the soils in the area become water logged and it becomes impossible for human and livestock movement. At this time cattle are grazed near the homesteads. With the onset of the dry season in April the area becomes dry, and passable. However, access into the grazing area is prohibited by customary laws and norms, straddling between what Nhira and Fortmann (1992) call pragmatic controls and the civil contract. Pragmatic controls are 'both long standing and recently adopted norms of (resource) use designed to ensure a steady flow of a particular product'. The civil contract comprises 'norms of civility that govern daily conduct and which restrain excessively avaricious behaviour.'¹³

Access to grazing is initially prohibited in this season because women get their thatching grass from the area. The women must have first access to the area before the cattle destroy the grass by grazing or movement. Also, access is prohibited so that the thatching grass can mature, dry up, and disperse seeds before it is cut up by the women. This ensures another crop of thatching grass in the following season. Furthermore, access is prohibited at this time to allow the women ample time to harvest their crops from the fields in time for the cattle to feed on the crop residue. This regulation also allows for a fair distribution of the thatching grass to all the women. After the harvests and the collection of thatching grass, cattle are then allowed into the lagisa area until the onset of the rains.

¹¹ Prescott, J.R V op cit

¹² This system impressed the Natural Resource Board, Native Enquiry in 1942. See also Prescott (1961.216) op cit

¹³ C Nhira and L. Fortmann, Local management of trees and woodland resources in Zimbabwe: A tenurial niche. (Harare: Centre for Applied Social Sciences, Univ of Zimbabwe, 1992)

THE LAGISA AREA IN THE BULILIMA MANGWE NRMP AREA

The traditional lagisa area in Bulilima Mangwe North includes the area bound by Makhulela Ward,⁵ Bambadzi Ward, Hwange National Park boundary fence, Ward 7 in Tsholotsho across the Nata (Mánzamyama) river and the Botswana/Zimbabwe border. The household survey shows that the area is used by some households from each of the seven wards in the NRMP. In addition, it is said that in times of stress the area can be used by people from as far as Matjunge to the south and east of the project wards. Also, some people from Tsholotsho District can graze their cattle in this area.¹⁴ The Maitengwe Dam, built in the mid 1960s as part of an irrigation scheme, is also in this area. The dam receives water from the Thekwane river.

The lagisa area is also home to a number of wildlife species and also takes the spill over of animals from the nearby Hwange National Park. However, a complete natural resource inventory of the area has not been done.

The lagisa area has gone through various phases of ownership, in the pre-colonial, colonial, and post colonial eras. From the pre-colonial era to the early colonial era, this area was inhabited by the San, a hunting and gathering, nomadic people who did not practice sedentary agriculture nor livestock rearing. The lagisa area also falls in Natural Region IV¹⁵, where there is inadequate rainfall for reliable rainfed agriculture, but adequate grass and tree cover to support a diverse population of wildlife and birds, as well as edible fruits and roots. The San occupied this area and extended across the present border into Botswana where there are larger concentrations of the population. Most of the names of places in the lagisa area indicate a San ancestry.

The early colonial period saw the movement of the Kalanga speaking people into areas close to the lagisa area. These movements of people were a result of the implementation of the provisions of the 1930 Land Apportionment Act. Sedentary agriculture and livestock rearing are the major economic activities of the Kalanga people. The arrival of the Kalanga saw the displacement of the San people into the present lagisa area, in an effort to continue with their way of life. Wildlife populations are scarce in areas of large and concentrated human settlements, so the San might have found it difficult to continue hunting once the area had been turned to agriculture. Forms of exchange took place between the two tribes based on agricultural produce from the Kalanga and meat from the San. Furthermore, the San began to be employed by the Kalanga to herd cattle and to work on the fields, in return for food or money¹⁶. The Kalanga used the area as seasonal grazing, lagisa.

¹⁴ See Map 1

¹⁵ Government of Zimbabwe, Zimbabwe 1:1 000 Natural Regions and Farming Areas. 2nd Ed (map), (Harare: Government Printers, 1984).

¹⁶ There is a small population of people in Makhulela who identify themselves as San and who are so identified by their neighbors, often using the derogatory term bushman. However, they speak Kalanga and intermarry with their neighbors. For all practical purposes, they are the poorest households in the Kalanga community.

The colonial period marked a time of active government control in the area¹⁷. One of the major developments in the area was the building of the Maitengwe (Mabhongane) Dam in the mid 1960s. A rest camp for the District Commissioner was also established there. The District Commissioner set up an irrigation scheme, with water supplied from the Maitengwe Dam, worked by selected local people. Our informants indicated that the management selected experienced farmers to be plottolders. The plottolders grew wheat as the major crop. They apparently had no choice in the choice of this crop. They were provided inputs of seed and fertilizer, and land was ploughed by tractor. The District Commissioner's office transported and marketed the wheat. Each plottolder was paid an amount for his crop from which was deducted the costs of inputs. The choice of crop, the application of seed and fertilizer, and marketing were activities outside the control of the plottolders.

Informants report that farmers grew a few crops of their own around the edges of their irrigated fields. These were for their own consumption. It is also reported that the scheme was a fruitful source of employment for local people. Some were employed by the District Commissioner to maintain the dam, drive tractors, etc. and others were employed as labourers by the plottolders.

Canals were also dug up which fed water into pans in the lagisa area. Dip tanks were also erected in the area. In addition to wheat growing, the District Commissioner also ran a ranching scheme in the area and dip tanks were erected in places like Sihubu, and Bambadzi. Hunting safari operations also took place in the area. The lagisa area was divided up between the cattle of the local people and those of the District Commissioner. Access to the area by local herds was regulated by the District Commissioner, through the headmen of the area.

The furthest reaches to the west were used for safari hunting operations, apparently for the benefit of the District Commissioner. Apparently one motivation for sending water to the area was to sustain wildlife populations.

The whole area seems to have been held under a state management regime rather than a common property regime. *'In a state property regime, ownership and control over use rests in the hands of the state. Individuals and groups may be able to make use of the resources, but at the forbearance of the state.'*¹⁸ The major source of authority was the District Commissioner. The traditional authorities seem to have derived their authority from him, and simply to have passed on his regulations to the people who were regulated. In colonial times *'a putative system of indirect rule was in place and traditional leadership structures were supposed to play a role in land and resource management. But the ability of these traditional structures had been seriously eroded by its tenure status. They and their constituencies were on state land with usufructual rights only, they had no powers of exclusion and access to*

¹⁷ Conspicuously absent from our sources are the government records of the time. At this writing we have been unable to locate them. We rely on reports of informants we interviewed. We note that even the original plans for the Maitengwe dam were never located by the project implementers. They rebuilt the dam without them.

¹⁸ D W Bromley, "The Commons, Common Property, and Environmental Policy," *Environmental and Resource Economics*, 2, (1992), pp 1-17

*certain natural resources (e.g. wildlife) were denied to them.*¹⁹ In the course of our work, we interviewed five headmen. We asked each of them to recall cases that they had adjudicated that involved disputes about grazing in the area. Not one case was recalled. This leads us to hypothesise that the headmen were not really actively involved as regulating authorities in the colonial era.

At the height of the war of independence, local government in the area was paralysed. The District Commissioner abandoned the irrigation scheme, Maitengwe Dam and the rest camp. Without maintenance, the dam was soon breached. Regulation of access into the lagisa area fell away. Control and access into the lagisa area during, and immediately after, the war approximated open access res nullius. Open access is defined as a state where no property rights or duties exist over the use of the resource²⁰. The headmen were left with no means of effectively controlling the area because their power base had been the District Commissioner, whose authority they represented. The lagisa area was an area held under a state management regime by virtue of the support and control it received from the government.

In the 1980s, after independence, the District Council sought to revive the Maitengwe dam. The 1988 District Development Plan listed 'Maitengwe Irrigation' as one of its proposals²¹. These plans meshed with the establishment in 1989 of a CAMPFIRE programme in the area and, simultaneously, the availability of donor funds through the NRMP. It is not clear to us that there was ever a real consensus among all the actors about the purpose of the revival of the dam.

The stated objective upon which the project proceeded was a combination of reestablishing the sustainable use of the lagisa area, protecting households from crop damage and livestock predation and, at the same time, establishing a wildlife reserve that would bring income to the local community from photographic and hunting safaris.

To these ends, the seven wards were designated as participants in the CAMPFIRE programme. Community workers from district council, and from a non-governmental organisation, took up the process of organising communities, establishing an inter-ward wildlife committee and forming a plan for the area. These steps did not happen strictly in this logical order. The council had decided a few years earlier that they wanted to rebuild the dam for a possible irrigation scheme. The NRM Project came with money to build fences as well as for water projects. So, it seems that a project with dams and fences was preordained. That the NRMP was about wildlife, dictated that aspect should be included in the scheme. That the whole thing was under the aegis of CAMPFIRE required that the project be framed in terms of community participation and control.

¹⁹ M W. Murphree, *Communities as Institutions for Natural Resource Management*, Occasional Paper Series - NRM, (Harare Centre for Applied Social Sciences, Univ of Zimbabwe, 1991)

²⁰ D.W. Bromley, "The Commons, Common Property, and Environmental Policy," *Environmental and Resource Economics* 2, (1992), pp 1-17

²¹ Bulilimangwe District Council, *District Development Plan*, (1988), p 40

The plan that emerged was that the dam was to be rebuilt. Also planned were two fences. The first was to be a livestock fence to control the entry of cattle to the area of the dam. This was intended to be a reinstatement of the lagisa. Cattle were only to be allowed entry in the dry season and when the women had finished gathering grass. A second fence - electrified - was to have been built west of the dam. This was to have demarcated the wildlife area. The fence would keep wildlife out of the reconstituted lagisa and would keep cattle out of the wildlife area. To compensate for closing off the dam area, except in the dry season, pans in the seven ward area were deepened to hold more water for livestock. To cater for the water needs of wildlife, and to keep them away from the dam, the old canals were to be rehabilitated.

The rebuilding of the dam was completed in 1990. By the end of the rains in April 1991, it was full. At the same time, pans in the inhabited area were deepened. The cattle fence was erected in 1991 but it was soon cut, presumably by dissatisfied cattle grazers. The construction of the wildlife fence was postponed and there seems to be no current plans to complete it. The rehabilitation of canals turned out not to be cost effective and five boreholes have been sunk instead in the putative wildlife area. They are about to be fitted with diesel engine powered pumps.

Soon after the project's inception, opposition emerged. It centered around the owners of large cattle herds, primarily based in Bambadzi and Hingwe wards. They generally felt that their right to use the area was being taken from them. They argued that CAMPFIRE could not bring nearly as much to the community as cattle sales. They attended training meetings sponsored by Zimbabwe Trust and presented their point of view. They lobbied district council members and district officials. One report is that they explored the possibility of bringing legal action against the Zimbabwe Trust²².

In 1992, a safari operator was established in the wildlife area under lease with the council. In 1993 he left the area in spite of the lease agreement. His stated reason was that he could not bring his clients to an area where there were so many cattle to be seen. Although the reasons are probably more complex, the complaint about cattle is plausible on its face.

Casual observation of the area reveals that there are many cattle there²³. The district council has ordered that cattle be removed from the wildlife area. Interviews with district council members and officials reveal no immediate plans to remove them. As this is written, the future of the area is not clear. There are no plans for fencing off a wildlife area. However, there are suggestions for surrounding the dam with an electric fence and turning it into a small game preserve and a bird sanctuary. There are suggestions for building a small

²² Apparently they were advised that, since the area was communal land, the law about access was all on the side of the council and legal action would be futile.

²³ Not surprisingly, we were unable to interview the herders in the area. All the people - and even the dogs - quietly vanished into the bush upon our approach.

ethnic tourist compound by the dam and attracting Zimbabwe residents to it²⁴. It is unclear where the funding will come from.

Why have the plans gone awry? The answers involve the meanings of cattle and the patterns of their ownership in the project area. They involve the too facile use of the term community to promote and justify development schemes. They involve the failure to notice that there are many institutional actors and interests in any development project that need to be taken into account²⁵.

The rest of the paper will try to take some of these issues into account.

²⁴ However, the dam is 200 kilometres from Bulawayo. The second 100 Kilometres is unpaved. The last 30 kilometres is accessible in the rainy season, but only with four wheel drive. When we visited in the dry season, malaria was endemic among the personnel at the nearby work camp.

²⁵ We also note that there is a general failure of university intellectuals to provide timely advice at the beginning of projects, instead of speaking from hindsight. That will be the subject of another discourse.

LIVESTOCK OWNERSHIP IN THE NRMP AREA

The meaning of African cattle ownership has been debated extensively and interpreted in many ways. One of the interpretations is that there exists, or has existed, a 'cattle complex' among Africans. This interpretation is that cattle are a status symbol only and not viewed as economic wealth²⁶. Thus, from this reasoning, it was argued that the Africans were not interested in rearing cattle for the market nor for domestic consumption. Rather, they are a source of "cultural wealth", useful for comparing one man with another, for the ostentatious payment of bridewealth and for ritual obligations. Furthermore, this search for prestige (it was reasoned) would result in overstocking and, consequently, bring on Hardin's 'Tragedy of the Commons'²⁷.

A contrasting view on the ownership of cattle by Africans assumes an 'economic motives' view point. It assumes that the rural economy focusses on growing crops for subsistence, and for sale, and that the economic value of cattle stems from that. This viewpoint is informed by, among others, research done by Dankwerts (1974) in the Victoria (now Masvingo) province of Zimbabwe. This study looked at the way output from cattle was viewed by people in the communal area. The result was as follows:

ploughing and manure	49,2%
milk and meat for home consumption	33,2%
sales of livestock	17,6%

Dankwerts' findings have been used to argue that cattle, in the communal area, are needed for ploughing and manure primarily. The people in the communal areas are agro-pastoralists whose ecological and economic conditions force them to focus on agricultural production²⁸. Attempts aimed at encouraging people to keep cattle for sale will, therefore, fail - it is further argued - because their objective is to maximise on draught power and manure only.²⁹

This is a view that also leads to the conclusion that people are motivated to keep enough cattle for their agricultural needs, and that all households are about equal in their need to possess cattle.

²⁶ C Bullock, *The Shona and the Matabele*. (Cape Town Juta, 1950)

²⁷ G Hardin, "The Tragedy of the Commons," *Science*, 162(3859), (13 December 1968), pp 1243-1248

²⁸ D.L Barnes, "Problems and prospects of increased production in the Tribal Trust Lands," *Zambezia*, VI (1), (1978)

²⁹ I Scoones and K Wilson, "Households, Lineage Groups and Ecological Dynamics Issues for livestock development in Zimbabwe's Communal Lands," in B. Cousins (ed), *People, Land and Livestock*, (Harare Centre for Applied Social Sciences, Univ of Zimbabwe, 1989)

Table 1 can shed some light on these arguments. In the project area, households are nowhere near equal in their possession of cattle. Nor do they limit themselves to a number needed for draught power and manure.

Table 1: Cattle Ownership in the Bulilima Mangwe CAMPFIRE Wards

Number of Cattle Owned	percent of homes	percent of cattle
no cattle	22.9%	0.0%
1 to 5 cattle	27.8	11.8
6 to 10 cattle	23.5	25.1
11 or more cattle	25.8	63.1
TOTAL	100.0% (949)	100.0% (7021)

Mean number of cattle owned = 7.4

Median number of cattle owned = 5.0

The first line of the table shows that 22.9 percent of households - almost a quarter of them - report owning no cattle. The difference between those who own cattle and those who do not is a fundamental social and economic distinction. Those without do not have draught power to prepare their fields nor manure for fertilizer. They are without an important source of cash income. They are without an important store of wealth, economic and cultural.

The next line tabulates the percent of households that own one to five beasts. This will include those homes that have enough cattle to get ploughing done but are not ahead of the game in terms of accumulating wealth. This is a bit more than another quarter of the population, 27.8 percent.

Almost another quarter of the households, 23.5 percent, report owning six to ten cattle. These are homes that have begun to accumulate a surplus of cattle beyond the bare necessities of draught power.

The final category of ownership of more than ten cattle accounts for the remaining 25.8 of the households. These are households that have accumulated to the point that their herds represent a considerable amount of economic and cultural wealth. They have the potential

for income from the sale of cattle³⁰.

Although there are problems in the accuracy of our reports, we are comfortable with the generalisation that about a quarter of the homes in the Bulilima Mangwe area are without cattle. Another quarter have enough to get ploughing and pulling done. Still another quarter is a bit ahead of necessity. A final quarter are cattle wealthy.

However, a large portion of the cattle are in the largest herds. The second column of table 1 tabulates the percents of all the cattle which are owned by the four groups. Of course, those without cattle account for none of the cattle - the zero percent in the top line. Those who own one to five beasts own 11.8 percent of all the cattle. Those with five to ten account for 25.1 percent. Finally, 63.1 percent of the cattle are owned by the cattle wealthy quarter of the households. A fair description of the pattern is that almost ninety percent of the cattle (88.2 percent) are owned by half of the households (49.3 percent) in the Bulilima Mangwe CAMPFIRE area.

The pattern of cattle ownership presents a basic challenge to the CAMPFIRE programme in Bulilima Mangwe. The programme attempts to promote sustainable use of the environment for the benefit of the local community. There is a potential divergence of interest between those who own none, or a few cattle, and those with more. Cattle must be grazed, and the large herds of the few place the most stress on the environment and conflict most with wildlife for access to land.

Moreover, we would expect those with cattle, and more generally with wealth and leisure to be most active in politics and planning and in making representations to government, development agencies, and researchers about the needs of the community. It should not surprise us if they perceive the needs of the community in terms of grazing and water for cattle.

The above figures show the skewed nature of cattle ownership in Bulilima Mangwe project area. More than half of the cattle in the project area are owned by a quarter of the households. These households own more than 11 cattle each. These are households that have accumulated to the point that their herds represent a considerable amount of economic and cultural wealth. Eleven and above cattle is above the basic drought power needs of the households. These households have the potential for income from the sale of cattle.

Nineteen percent of the households that report owning cattle also report that some cattle were sold in the year preceding the survey. Typically one or two beasts were sold with a few reports of as many as five. The pattern of sales varied with the size of herds currently owned. Less than ten percent of households with one to five cattle reported any sales. On the

³⁰ We have been urged to disaggregate the numbers into more finely grained categories - especially the top group. This we do not do, as we do not trust the reporting of the large numbers. Also, the sampling variability that results from multiplying numbers of households by numbers of cattle is large and the resulting precision would, we fear, be specious. We are willing to go as far as saying that, in the sample, about ten percent of households own 18 or more beasts and that they account for about a third of all the cattle.

other hand almost a third of the households with more than ten cattle reported that some were sold Overall more than sixty percent of the cattle sold were by those reporting the ownership of more than ten.

In March, 1992, a group of seven cattle owners came to the Bulilima Mangwe District Council offices to protest against the positioning of the electric fence which would separate wildlife from cattle. In reply the council said that there was no need to worry because the cattle could still be allowed into the wildlife area if it was felt that there was a shortage of grass. However, the cattle owners argued that this was not a solution because at present their cattle fetched low returns at the market because they were regarded as coming from a 'red zone'. The area was a red zone because the livestock mixed with wildlife in an uncontrolled manner.³¹ This argument illustrates that some of the farmers are not worried about draught power and manure only, nor about owning cattle for prestige but about the market value of their cattle when they are sold.

The data shows that Scoones and Wilson's argument is difficult to apply entirely to Bulilima Mangwe.³² There is a significant proportion of the households which keep cattle for commercial purposes.

This imbalance has an effect on the nature of resource use in the project area There are people who are not using the common grazing resources because of a lack of cattle. The household's level of cattle ownership influences the people's attitude towards interventions in land use planning. The cattle owners may coalesce into interest groups bound to hijack or to resist the intervention.

This discussion points to the problems of defining the community which needs to benefit from some development effort It also points to the problems of common property resource management at the local level, and whose consensus needs to be sought if one plans to make interventions in such an area

³¹ An area can be declared a red zone by the department of Veterinary Services of the cattle in the area are deemed to be carrying or exposed to diseases

³² I Scoones and K. Wilson, 1989, op cit

PATTERNS OF GRAZING

The survey interviewers asked about actual grazing areas used in the rainy and dry seasons Table 2 summarises the reported grazing behaviour of the communities in the natural resource management area

Table 2. Percentage of Cattle Using Various Grazing Areas by Season

Grazing Area	Rainy Season	Dry Season
<i>Near Home</i>		
In the fields	-	36.7%
Nearby	76.6%	30.1
<i>Local Grazing Area</i>		
Thekwane River	9.6	4.8
Maitengwe River	2.7	0.4
Manzamnyama River	5.4	.7
Other	0.2	4.4
Mabhongane/Lagisa	4.9	18.7
Not Recorded	0.1	0.3
TOTAL	100.0%	100.0%

The table shows that there is a general movement of cattle in search of pasture between the dry and the wet seasons. The table also shows that the ideal pattern is not followed by each and every household in the project area. The availability of water in the rivers in the rainy season attracts a number of cattle to graze in these areas. The table also shows that in the dry season cattle continue to be grazed around the homes and feed on crop residues in the fields. In total 68 percent of the cattle continue to be grazed in the area and in the fields. Cross tabulations not shown indicate that nearly fifty-seven percent of all cattle are kept near to home for the entire year.

Maitengwe, the lagisa area that is the target of the CAMPFIRE programme, has 19 percent of the cattle from the Bulilima Mangwe project wards during the dry season. Other tabulations that we do not show, indicate that these cattle are from only 16 percent of the cattle owning households in the area. This means that the herds using the area are above average size.

Also to be noted is that nearly five percent of the cattle are reported to be in Maitengwe in the rainy season. This is a clear departure from the ideal pattern described above. Other tabulations show that these cattle are from less than three percent of the cattle owning

households. So a very small group of large herd owners report the use of the Matengwe lagisa area in the rainy season. Other tabulations also show that all these cattle use the area year round

Table 2 shows that only 19 percent of the cattle are grazed in the lagisa area during the dry season. The figure illustrates that there are other places in the local area used for grazing. However, this situation can be explained by other reasons. Transhumance is a semi-permanent movement into a grazing area. The lagisa is 20 kilometres, from the nearest settled area and almost 100 kilometres on the furthest point in the seven ward area. This means then that individuals from households have to go and stay in the area for a long time looking after the cattle because the area has a big hyena population. This means that a family member or several have to go and live in the lagisa area, with some food to subsist on. Some local people employ the San to look after the cattle in the lagisa area. Payment is in cash or kind. Therefore while the lagisa area provides grazing for cattle the method of getting there, and living there, has drawbacks which keep other people away from the area. Only those with the financial and material resources to justify the expense - in the case of employing the San - and herds large enough to risk predation by wildlife, use the area

Table 3. Origins of cattle using the lagisa area for grazing by season.

Ward of Origin	Rainy Season	Dry Season
Makhulela	-	23.3%
Ndolwane	-	14.2%
Huwana	5.6%	15.4%
Gala	-	2.4%
Bambadzi	43.0%	26.3%
Hingwe	45.1%	17.0%
Madlambudzi	6.3%	1.3%
TOTAL	100.0%	100.0%

The question of distance comes into play also. Table 3 shows that more than half of the cattle in the area in the dry season come from Hingwe, Makhulela and Bambadzi, the frontline wards.³³ Only 2 percent of the cattle in the lagisa area from Gala the furthest ward in the dry season. Madlambudzi ward has a large area of grazing along the Thekwane river and this

³³ See Hawkes op cit

seems to be adequate for local needs. While conducting the interviews for this study, one of Madlambudzi's sabukus, Tsukuru, informed us that were it not for water, the people in the ward would never go to the lagisa area. The lagisa area is used intensively by the people from Hingwe, Bambadzi and Makhulela. However, it may be the large herd owners who might be willing to risk and have the resources to use the area.

It is worth noting that in the wet season 90 percent of the cattle in the lagisa area are from Hingwe and Bambadzi. This has implications for the Natural Resource Management Project in terms of resource use.

DISCUSSION

The cattle holdings in the Bulima Mangwe natural resource management area indicate that there are large and small herd owners. This leads one to reject the hypothesis that farmers in the communal lands seek draught power and manure from cattle solely. The tables also indicate that almost a quarter of the households report owning six to ten cattle. These are homes that have begun to accumulate a surplus of cattle beyond the bare necessities of draught power. One may conclude that those who have just enough cattle for draught power are in that group not because they have no desire to have more cattle, but because they are the poor households of the community.

The above situation then begs the question of who do we define as the community? The local community can be defined in terms of geographical boundaries, like villages and wards. The data presented in this paper, however, indicates that there is more to the definition of a community than spatial boundaries, especially when it comes to natural resource use. There are communities which exist within the communities, the group of large herd owners is a case in point. Within the same spatial boundaries are different communities with heterogeneous interests regarding the use of natural resources.

The communal land tenure system in Zimbabwe accords full rights to every recognized member of that community to use the natural resources of the area. However, use of the natural resources in this grazing area is different depending on one's wealth. Therefore, the people who are benefiting from the use of the natural resources of the area, in this case grazing, are those who are already wealthy. The poor, who have excluded themselves by their lack of many cattle, might take their rightful position in resource use with CAMPFIRE. The definition of community is a composite of different economic sub-groups with competing interests.³⁴

Pro pos of the above, this is the problem which the natural resource management project will have to deal with. The rich have been able to have many cattle because there has been a frontier, the lagisa area which they can use for grazing. The natural resources management project seeks to ensure that the poor benefit from the use of the lagisa area by partitioning a wild life buffer in the lagisa area. If the project seeks to benefit the poor households, then the rich and the aspiring have to be deprived of the resource base which has been sustaining their status. This is so because there will not be unlimited grazing for that many cattle. Thus the poor and weak will demonstrate their willingness for the project, but the rich and powerful will resist. It becomes a contest in which those with power and influence will triumph.

The natural resource management programme, CAMPFIRE, seeks to establish a harmonious link between humans and natural resources and their use. In this process, local communities are assisted with managing their resource base. We have already indicated the problem of

³⁴ See B Cousins, Property and Power in Zimbabwe's Communal Lands (Harare: Centre for Applied Social Sciences, Univ of Zimbabwe, 1990)

finding the community in the Bulilima Mangwe NRM project area. However, the research so far does not find a management system of the lagisa in the traditional leadership's repertoire.³⁵

Forms of regulation existed, but it is difficult to draw up a history of livestock and grazing management from the traditional leaders. This may suggest that the lagisa-system functioned well because of the support the traditional leaders received from the District Commissioners during the colonial era. The threat of coercion from the District Commissioner, represented by the headman at the local level, might have ensured the cooperation and compliance the leaders received. Therefore, for one to argue that local control of natural resources can be carried out successfully through the use of local leadership as in the past, one must be aware of the need to have a 'unit of coercion' which is not usually found locally.

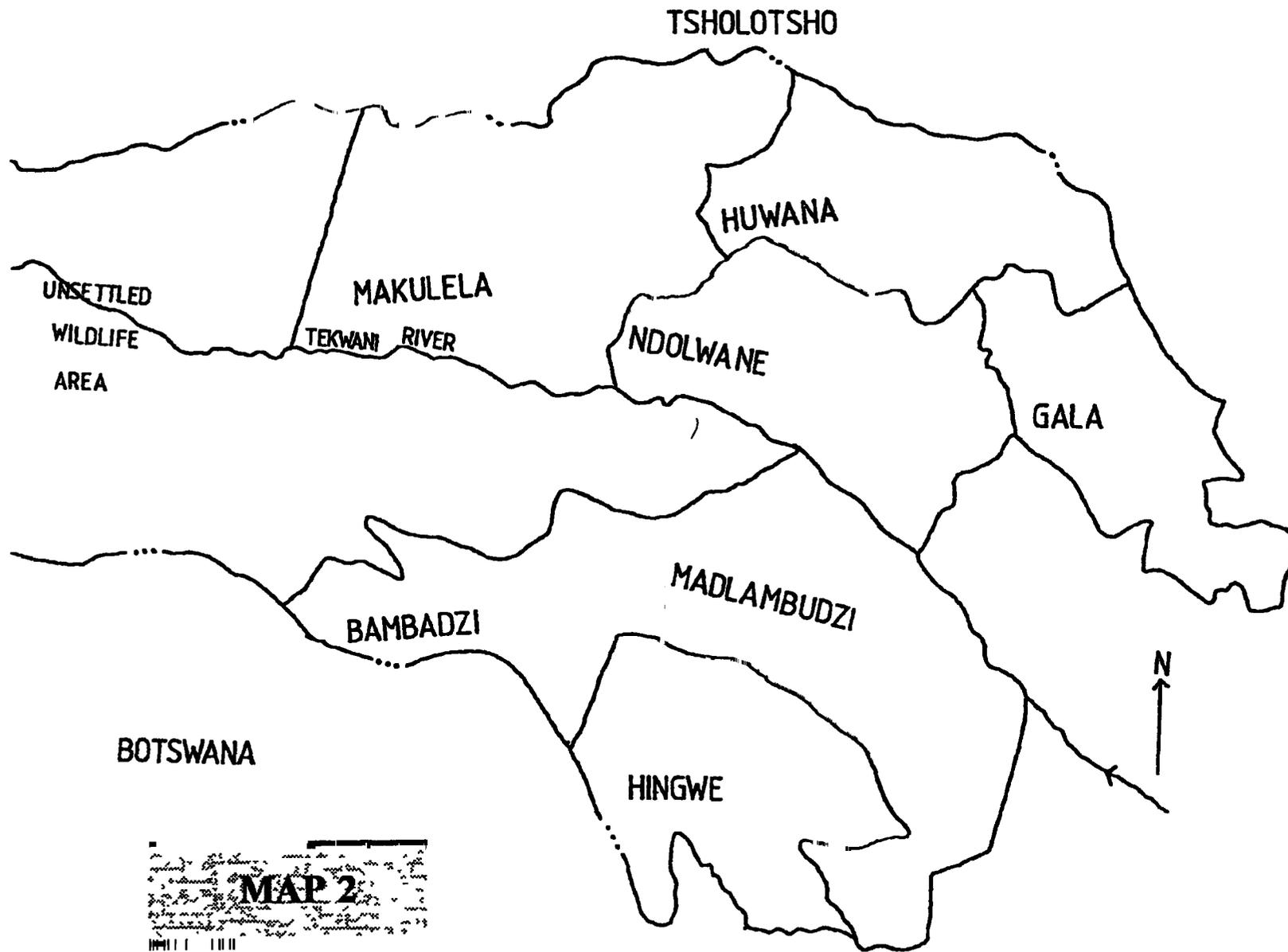
The San people are still resident in the NRMP area of Bulilima Mangwe. The San were a hunting and gathering community, whose style of living was disturbed by the arrival of, and looked down upon by, the Kalanga and the colonial administration. The Kalanga were agro-pastoralist whose cattle competed with wildlife for food and water in the area. Furthermore, the sedentary Kalanga cleared areas for settlement and this drove the wildlife away. The San also moved away following the movement of the wildlife. The colonial administration declared all game the King's game and prohibited the African people including the San from hunting. The Kalanga and Ndebele are migrants to the area who displaced the San. The San have been reduced to a group of cattle herders for these tribes, and wildlife trackers for the hunting safari operators. The NRM Project, CAMPFIRE, has a challenge to extend the benefits of the project to this disadvantaged group of society, the original owners of the land.

The data presented in this paper underlines the need for further study on how communities differ in their use of resources held under a common property regime.

³⁵ Sometimes it is even difficult to get the history of the community from the traditional leaders.

BULILIMANGWE NATURAL RESOURCES MANAGEMENT PROJECT

WARDS INCLUDED IN THE PROJECT



MAP 2