Zambezia (1996), XXIII (i).

GRAZING AND CATTLE AS CHALLENGES IN COMMUNITY BASED NATURAL RESOURCES MANAGEMENT IN BULILIMAMANGWE DISTRICT OF ZIMBABWE

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Abstract

CAMPFIRE is a community based natural resources management programme, designed to devolve natural resource management, especially wildlife, to local communities. The programme in Bulilimamangwe district seeks to enhance the community's wildlife base by partitioning a wildlife buffer in the grazing area. Benefits from managing the wildlife, mainly through hunting and photographic safaris, will accrue to the CAMPFIRE communities. Such community based programmes presuppose the existence of a community, which can manage, or is managing, natural resources. In this article, we examine the problems of introducing community based management of wildlife in Bulilimamangwe district of western Zimbabwe, by looking at issues regarding cattle ownership and grazing practice. We conclude that one of the challenges to CAMPFIRE as a community based programme is the fact that the structure of the Bulilimamangwe community is a composite of different economic sub-groups with competing interests.

INTRODUCTION

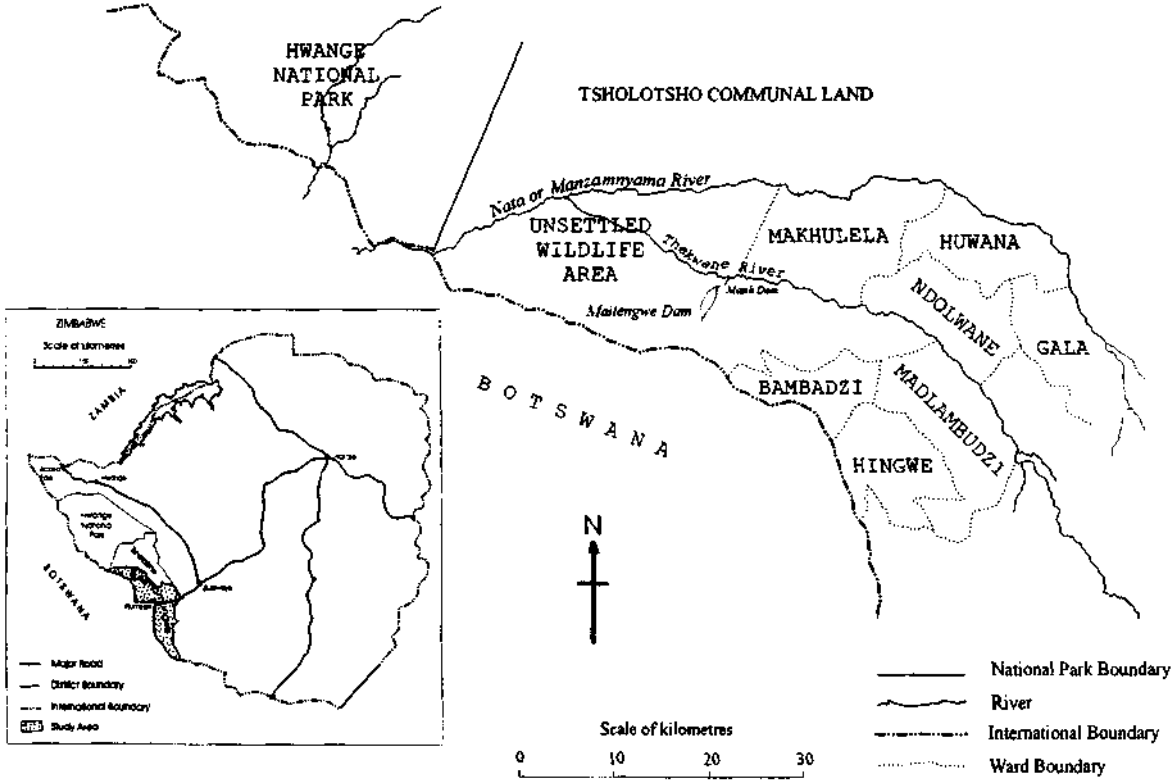
THIS ARTICLE EXAMINES patterns of cattle grazing and ownership in Bulilimamangwe district of western Zimbabwe. It discusses some issues surrounding efforts to organise grazing in conjunction with a Natural Resources Management Project (NRMP), the Communal Areas Management Programme for Indigenous Resources (CAMPFIRE). A major issue raised in this discussion is that the community is made up of different sub-groups that relate differently to the range. A close look at cattle holdings within the community shows that there are many institutional actors and interests at work that need to be taken into account.

The NRMP, which is funded by the United States Agency for International Development (USAID), is part of a regional initiative in wildlife conservation in Southern Africa. In Zimbabwe the regional project is linked with the CAMPFIRE programme, a national initiative that puts the

[1] We are grateful to our colleagues at CASS and to Professor Bourdillon for their comments on earlier drafts of this article.

LOCATION OF RESEARCH AREA

BULILIMAMANGWE NATURAL RESOURCES MANAGEMENT PROJECT



management of wildlife in the hands of those communities who live in proximity to wildlife. CAMPFIRE seeks to direct benefits from wildlife use, like hunting or photographic safaris, to local communities and households.[2] Four districts are included in the USAID-funded NRMP/CAMPFIRE programme in Matabeleland North and South provinces.

CAMPFIRE 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 to ensure that grazing, browse and water supplies are provided and are appropriately divided between livestock and wildlife. CAMPFIRE 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 was the rehabilitation of the derelict Maitengwe Dam[3] (see map). 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 area close to the dam was to be designated for dry season livestock grazing, also regulated by fencing. The project provided livestock watering points by deepening pans in the settled areas to reduce dependence on the dam. It was also planned to send water from the dam, through a refurbished canal system, westward to the wildlife area in order to reduce animal movement over the dam, and to protect the fence from being breached, especially by elephants.

This article describes the historical background of the area and the project. It examines patterns of cattle ownership and grazing. It outlines and discusses some of the issues that have arisen in the course of the implementation of CAMPFIRE as a community based programme in Bulilimamangwe district.

THE PROJECT AREA

Seven contiguous wards in the Bulilimamangwe district are included in the NRMP. The project area and the ward boundaries are shown on the map. Part of the area west of the established wards is where most of the large wildlife is. This area is also 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 per annum)

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[2] Department of National Parks and Wild Life Management (1986) *Communal Areas Management Programme for Indigenous Resources* (Harare, Branch of Terrestrial Ecology).

[3] A name used to refer to both the dam and the lake resulting from it.

and is subject to periodic seasonal droughts and severe dry spells during the rainy season. Rainfall is too low and uncertain for cash cropping except in certain favourable localities, where limited drought resistant crops can be grown.[4] 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 6 000 households.[5] There is a strong economic link with the urban labour economy through migration to urban centres for employment. Most of the migrants are men who work in South Africa. Sale of crops is insignificant. Most agricultural products are consumed at home. The district administrative centre is at Plumtree, about 70 kilometres south from the center of the seven wards.

The project area is inhabited by San, Kalanga and Ndebele ethnic groups. 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 that of the *sabuku*, the kraalhead, who is in charge of a small area under a headman. The authority of these traditional leaders has been eroded by the introduction of modern bureaucratic forms of local government after Zimbabwe's independence.

BACKGROUND AND METHODS OF THE STUDY

The authors are members of a university research unit which has responsibility of generating socio-economic 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 article 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 was 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

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[4] Land in Zimbabwe is classified into five regions based on natural factors like soil, climate and rainfall. Region I is good for specialised and diversified farming. Region II is an intensive farming region. Region III is a semi intensive farming area. Region IV is suitable for semi extensive farming and Region V is best for extensive farming [Government of Zimbabwe (1984) *Zimbabwe 1: 1 000, Natural Regions and Farming Areas* (Harare, Surveyor General, 2nd Edition].

[5] Central Statistical Office (1992) *Zimbabwe Preliminary Report, Matabeleland South* (Harare, C.S.O.), 104.

student interviewers. Both of us have visited and attended interviews in each of the 42 villages in the area.

Later in late 1993, with another researcher, we 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 cattle.

Between those times, the first author visited the area and the headquarters of the district several times in the course of researching on many topics. The second author has done the same on a much more limited scale.

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

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. Consequently, 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.

THE PRACTICE OF *LAGISA* AND THE *LAGISA* AREA

When people in Bulilimamangwe are asked casual questions about where cattle are grazed, 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 presented. 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 sometimes using the cattle for draught power.

May to July	Cattle are turned into the fields after the harvest to eat the crop residue. The rains will have stopped but there will be enough water for livestock in local pans. Also, the water table in the dried up rivers and streams will be high enough that digging will reach it.
August to October	Cattle are moved into the *lagisa* (described below). The *lagisa* area is usually some distance from home. At this time of the year, grass and water are still available in this area.

This scheme is an idealised pattern and 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 near the home or, availability of 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*.

Lagisa is a form of transhumance practised by people in the communal areas of Matabeleland. It involves the seasonal movement of cattle from one area to the other, in order to extend the grazing range.[6] Cattle owners or employees move into the *lagisa* and make a temporary shelter, *umlaga*, which they abandon at the end of the season. In the Bulilimamangwe *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 model, no individual owns any part of the *lagisa* area which belongs to the community as a whole. *Lagisa* has historically been practised by communities in Southern Africa.[7] It is motivated by the need for reliable sources of water, and *inter alia* for nutritious grasses. Prescott describes the existence of sour velds and sweet velds in Matabeleland, which influenced the pattern of interseasonal cattle movement in the district.[8] *Lagisa* is a form of land use which demonstrates the existence of advanced indigenous environmental and technical knowledge among the people of Matabeleland.[9] The practice is also common in neighbouring Botswana and is known as *muraka*.[10]

The ideal management system of the *lagisa* area and its relationship with the local (Kalanga/Ndebele) social system is as follows. During the

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[6] J. R. V. Prescott (1961) 'Overpopulation and overstocking in the native reserves of Matabeleland' *Geographical Journal*, CXXVII, 216.

[7] P. S. Garlake (1978) 'Pastoralism and Zimbabwe' *Journal of African History*, XIX, (iv), 479.

[8] Prescott, 'Overpopulation and overstocking in the native reserves of Matabeleland', 216.

[9] This system impressed the Natural Resources Board of Enquiry in 1942 [Natural Resources Board (1942) *Native Enquiry* (Salisbury, National Archives of Zimbabwe), 83–84].

[10] P. Peters, (1987) 'The grazing lands of Botswana' in B. J. McCay and J. M. Acheson (eds.), *The Question of the Commons* (Tucson, The University of Arizona Press), 184.

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 *lagisa* area becomes dry, and passable. However, access into the grazing area is prohibited by rules of access designed to ensure a steady flow of rangeland resources.

Rules of access to the *lagisa* can be understood by digressing a little to note the roles played by women in agriculture and house construction in Bulilimamangwe. Women do most of the agricultural work. Women are also responsible for thatching roofs (unlike in other parts of Zimbabwe where this is done by men). When the crops are ready for harvesting it is the time when the thatching grass is ready for collection too. Access to the *lagisa* is initially prohibited in the early dry season because women who are mainly responsible for collecting the thatching grass will still be busy harvesting crops in the fields. This regulation is designed to give women ample time to harvest their crops from the fields before the cattle are allowed to feed on the crop residue. Women must have first access to the *lagisa* area before the cattle destroy the grass by grazing or movement. Also, this access to thatching grass by the women is regulated so that the thatching grass first matures and dries for seed dispersal before it is cut up, to ensure another crop of thatching grass in the following season. It is assumed that these controls allow 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.

THE *LAGISA* AREA IN THE BULILIMAMANGWE NRMP AREA

Bulilimamangwe NRMP *lagisa* area includes the area bound by Makhulela Ward, Bambadzi Ward, Hwange National Park boundary fence, Nata (Manzamnyama) river and the Botswana/Zimbabwe border. The household survey shows that the area is used by some households in 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 to the south and east of Gala Ward. Some people from nearby Tsholotsho district graze their cattle in this area.

In this area is the Maitengwe dam, built in the mid-1960s as part of an irrigation scheme. The dam receives water from the Thekwane river.

In addition to a resident wildlife population, the *lagisa* area takes the spill-over of animals from the nearby Hwange National Park. There is, however, no complete natural resource inventory of the area.

The *lagisa* area has gone through various phases of control, 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 practise sedentary agriculture nor livestock rearing. The San occupied this area and extended across the present border into Botswana where they live in large numbers. Some place names in the *lagisa* area suggest a San ancestry.

In the early colonial period the Kalanga and later Ndebele-speaking people moved 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 found it difficult to continue hunting once the area had been turned to agriculture. Forms of exchange took place between the two ethnic groups based on agricultural produce from the Kalanga and wildlife meat from the San. The Kalanga employed the San to herd cattle and to work in the fields in return for food or money.[11] The Kalanga used the area as seasonal grazing, *lagisa*.

There was active government control of the *lagisa* area in the colonial era.[12] A major development was the construction of the Maitengwe dam in the mid-60s. 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 male farmers to be plotholders. The plotholders grew wheat as the major crop. They were provided with inputs of seed and fertilizer and land was ploughed by tractor. The District Commissioner's office transported and marketed the wheat. Each plotholder was paid for his crop an amount 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 plotholders.

Informants report that farmers grew a few crops for their own consumption around the edges of their irrigated fields. 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 plotholders.

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[11] E. Madzudzo and V. Dzingirai (1995) 'A comparative study of the implications of ethnicity on Campfire in Bulilimamangwe and Binga districts of Zimbabwe' *Zambezia*, XXII, (i), 28–33.

[12] Conspicuously absent from our sources are the government records of the time. We have been unable to locate them. We rely on reports of informants we interviewed. Even the original plans for the Maitengwe dam were never located by the project implementers.

In addition to wheat growing, the District Commissioner practised ranching in the area. Canals were dug which fed water for cattle into pans in the *lagisa* area. Dip tanks were built in the area. The *lagisa* area was divided between the cattle of the local people and those of the District Commissioner. Although local herds were allowed into the *lagisa* area, 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. Another 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.[13]

The major source of authority was the District Commissioner. The traditional authorities seem to have derived their authority from him and simply passed on his regulations to the people in the communal area. 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 certain natural resources (for example wildlife) were denied to them.[14]

In the course of our work, we asked five headmen 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 of the *lagisa* area during, and immediately after, the war approximated open access. Open access is defined as a state where no property rights or duties exist over the use of the resource.[15] The headmen

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[13] D. W. Bromley (1992) 'The commons, common property and environmental policy' *Environmental and Resource Economics*, II, 10.

[14] M. W. Murphree (1991) *Communities as Institutions for Natural Resource Management* (Harare, CASS Occasional Paper Series, University of Zimbabwe), 6.

[15] Bromley, 'The commons, common property and environmental policy', 13.

were left with no means of effectively controlling the area because their power base had been the District Commissioner.

In the 1980s, after independence, the Bulilimamangwe District Council sought to revive the Maitengwe dam. The 1988 District Development Plan listed 'Maitengwe Irrigation' as one of its proposals.[16] These plans meshed with the establishment in 1989 of a CAMPFIRE programme in the area and the availability of donor funds. 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 re-establishing 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 this end, the seven wards were designated as participants in the CAMPFIRE programme. Community workers from the District Council and Zimbabwe Trust 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 NRMP came with money to build fences as well as for water projects. So, it seems that a project with dams and fences was preordained. Since the NRMP was about wildlife, this aspect had to be included in the scheme. The project was under the aegis of CAMPFIRE and so it had to be framed in terms of community participation and control.

The plan that emerged included the rebuilding of the dam and the erection of two fences. The first was to be a livestock fence to control the entry of cattle to the area near the dam. This was intended to be a reinstitution of the *lagisa*. Cattle were only to be allowed entry in the dry season and when the women had finished gathering grass. A second electrified fence 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 wards 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

[16] Bulilimamangwe District Council (1988) 'District Development Plan' (Unpubl., n.d.), 40.

fence was postponed and there are current plans to erect 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 were fitted with pumps powered by diesel engines.

Soon after the inception of the project, opposition emerged. It centred 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 the Zimbabwe Trust and presented their point of view. They lobbied District Council members and officials. One report is that they explored the possibility of bringing legal action against the District Council.[17]

In 1992, a safari operator was established in the wildlife area under lease with the District 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.

Casual observation of the area reveals that there are many cattle there.[18] The District Council has ordered that cattle be removed from the wildlife area. Game scouts employed by the Council have been ordered to keep cattle grazers out of the area. The electric fence has been sited to an area near the homes, to protect arable lands from wildlife. There is no demarcation of the *lagisa* area into wildlife and livestock areas. There are suggestions for building a small ethnic tourist compound by the dam and attracting Zimbabwe residents to it.[19] 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 factors and interests in any development project that need to be taken into account.[20] The rest of the article will take some of these issues into account.

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

[18] 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.

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

[20] 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 comprise a status symbol and are not viewed as economic wealth.[21] From this reasoning it was argued that Africans were not interested in rearing cattle for the market nor for domestic consumption. Rather, cattle are a source of 'cultural wealth', useful for comparing one man with another, for the ostentatious payment of bridewealth and for ritual obligations. Furthermore, it was reasoned that this search for prestige would result in overstocking and, consequently, bring about degradation of the environment.

A contrasting view on ownership of cattle by Africans suggests economic motives. 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 Danckwerts in Victoria (now Masvingo) Province of Zimbabwe.[22] 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%

Danckwerts' findings have been used to argue that in the communal area, cattle are primarily needed for ploughing and manure. Communal area people are agro-pastoralists whose ecological and economic conditions force them to focus on agricultural production.[23] Efforts to encourage people to keep cattle for sale will therefore fail, because their objective is to maximise on draught power and manure only.[24]

This view suggests that people are motivated to keep enough cattle for their agricultural needs and it assumes that all households are about equal in their need to possess cattle.

Table 1 can shed some light on these arguments. In the Bulilimamangwe NRMP 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.

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

[22] J. P. Danckwerts (1974) *A Socio-economic Study of Veld Management in the Tribal Areas of the Victoria Province* (Salisbury, Tribal Areas Research Foundation of Rhodesia).

[23] D. L. Barnes (1978) 'Problems and prospects of increased production in the tribal trust lands' *Zambezia*, VI, (i).

[24] I. Scoones and K. Wilson (1989) 'Households, lineage groups and ecological dynamics: Issues for livestock development in Zimbabwe's communal lands' in B. Cousins (ed.) *People, Land and Livestock* (Harare, CASS, University of Zimbabwe).

Table 1
CATTLE OWNERSHIP IN THE BULILIMAMANGWE CAMPFIRE WARDS

Number of Cattle Owned	Percent of Homes	Percent of Cattle
0 head	22,9	0
1 to 5 head	27,8	11,8
6 to 10 head	23,5	25,1
11 or more head	25,8	63,1
TOTAL	100	100
N	(949)	(7021)
Mean head of cattle owned = 7,4		
Median head of cattle owned = 5,0		

Table 1 shows the distribution of cattle in the seven wards of Bulilimamangwe. 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.[25] They are without an important source of cash income. They are without an important store of wealth, economic and cultural.

Those who own up to five beasts have enough cattle to get ploughing done but have not advanced in terms of accumulating wealth. Those owning six to ten head of cattle 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 quarter 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 cattle[26].

We are comfortable with the generalisation that, about a quarter of the homes in the Bulilimamangwe area are without cattle.[27] Another quarter

[25] Informal lending arrangements regarding draught power exist in Bulilimamangwe. It is known that clients are served after the patron has finished ploughing his or her fields [see E. Madzudzo (1996) 'Drought, draught power, and wildlife in Bulilimamangwe and Tsholotsho' (Harare, CASS Inhouse Seminar Series)].

[26] 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 10% of households own 18 or more beasts and that they account for about a third of all the cattle.

[27] Scoones also observed that in Masvingo province 25% of the households did not own any cattle — I. Scoones (1996) *Hazards and Opportunities, Farming and Livelihoods in Dryland Africa: Lessons From Zimbabwe* (London, Zed Books), 207.

have enough to get ploughing and pulling done. Still another quarter is a bit ahead of necessity. A final quarter are cattle wealthy. A large portion of the cattle are in the largest herds. A fair description of the pattern is that almost 90% of the cattle are owned by half of the households in the Bulilimamangwe CAMPFIRE area.

The pattern of cattle ownership shown above presents a basic challenge to the 'community' basis of the Bulilimamangwe CAMPFIRE programme. There are people who are not using the common grazing resources because of lack of cattle. There is a potential divergence of interests between those who own none or a few cattle and those with more. A household's level of cattle ownership influences its attitude towards interventions in land use planning. The cattle owners may coalesce into interest groups bound to hijack or to resist such interventions.

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.

Nineteen per cent 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 10% of households with one to five cattle reported any sales. On the other hand, almost a third of the households with more than ten cattle reported that some were sold. Overall more than 60% 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 Bulilimamangwe 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 for concern because the cattle could still be allowed into the wildlife area if it was felt that the cattle faced 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.[28] 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.

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[28] An area can be declared a red zone by the Department of Veterinary Services if the cattle in the area are deemed to be carrying or exposed to diseases.

The data shows that Scoones and Wilson's[29] argument that communal area people maximise on draught power and manure only is difficult to apply entirely to Bulilimamangwe. There is a significant proportion of the households that keep cattle for commercial purposes.

This discussion points to the problems posed by the structure of a community in introducing community-based development. It also points out the problems of common property resource management at the local level, and of whose consensus needs to be sought if one intends to make interventions in such an area.

PATTERNS OF GRAZING

We asked about grazing areas used in the rainy and dry seasons. Table 2 indicates where members of the communities in NRMP wards say their cattle graze.

Table 2
PERCENTAGE OF CATTLE USING VARIOUS GRAZING AREAS BY SEASON

Grazing Area	Rainy Season	Dry Season
Near Home		
In the fields	—	36,7
Nearby	76,6	30,1
Local Grazing Area		
Thekwane River	9,6	5,7
Maitengwe River	2,7	0,4
Manzamnyama River	5,4	3,7
Other	0,7	4,4
Maitengwe *lagisa*	4,9	18,7
Not Recorded	0,1	0,3
Total	100%	100%
N = 7021		

The table shows that there is a movement of cattle in search of pasture between the dry and wet seasons. The table also shows that the ideal practice of *lagisa* is followed by a small minority of households in the project wards. The availability of water in the rivers, and lush vegetation

[29] Scoones and Wilson (1989) 'Households, lineage groups and ecological dynamics'.

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. Cross tabulations not shown indicate that nearly 57% of all cattle are kept near to home for the entire year.

The *lagisa* area has almost a fifth of the cattle from the Bulilimamangwe project wards during the dry season. These cattle are from 16% of the cattle-owning households in the area. This means that herds using the area are above average size. This is supported by the following facts. The *lagisa* is 20 kilometres from the nearest settled area and almost 100 kilometres on the furthest point in the seven wards. Individuals from households have to go and stay in the area for a long time looking after the cattle because of the threat from carnivores. A family member or several have to go and live in the *lagisa* area. These have to be provided with food, a cost to the household. Some local people employ people to look after the cattle in the *lagisa* area. Although the *lagisa* area provides grazing for cattle, the implications of getting and living there have drawbacks that discourage some people away from the area. Only those with sufficient financial and material resources to justify the expense, in the case of employing people, and herds large enough to risk predation by wildlife, use the area.

Nearly five per cent of the cattle are reported to be in the *lagisa* 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 per cent of the cattle-owning households. A very small group of large herd owners report the use of the *lagisa* area in the rainy season. Other tabulations also show that all these cattle use the area all year round.

Table 3 shows that more than half of the cattle in the area in the dry season come from Hingwe, Makhulela and Bambadzi, the wards closest to the *lagisa* area. The least number of cattle in the *lagisa* area are from Gala, the furthest ward from the *lagisa*. Madlambudzi ward has a large grazing area along the Thekwane river and this 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 at the dam, 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. This has implications on the NRMP in terms of resource use.

DISCUSSION

The above situation begs the question of whose interests are the community interests? A community can be defined in terms of geographical boundaries, like villages and wards. Data presented in this article, however, indicates that there is more to a community than spatial boundaries, especially

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
N 7021		

when it comes to use of natural resources. There are communities that 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 recognised 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 are those who are already wealthy. The poor are excluded from the use of grazing by their lack of cattle, and so might become interested in CAMPFIRE. The community is a composite of different economic sub-groups with competing interests.[30]

Apropos of the above, this is the problem which the NRMP 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. If the project seeks to benefit the poor households, then the rich and those aspiring to be rich have to be deprived of the resource base which has been sustaining their status. 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 are likely to triumph.

[30] See B. Cousins (1990) *Property and Power in Zimbabwe's Communal Lands* (Harare, CASS, University of Zimbabwe).

The research so far does not find a management system of the *lagisa* in the community leadership's repertoire.[31] Forms of regulation existed, but it is difficult to draw up a history of livestock and grazing management from the traditional leaders. 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. This has to be borne in mind when one argues for community control of natural resources through the use of local leadership as in the past.[32]

The San are still resident in the NRMP area of Bulilimamangwe. 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 ethnic groups 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.[33]

The data presented in this article show that there are differences within communities in their use of natural resources. Such differences affect the outcomes of efforts aimed at community-based natural resources management.

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[31] Sometimes it is even difficult to get the history of the community from the traditional leaders.

[32] S. Lawry (1990) 'Tenure policy toward common property natural resources in Sub-Saharan Africa' *Natural Resources Journal*, XXX, 415–419.

[33] Madzudzo and Dzingirai, 'A comparative study of the implications of ethnicity on Campfire in Bulilimamangwe and Binga districts of Zimbabwe', 25–33.