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CHANGES IN SETTLEMENT AND LAND USE PATTERNS IN A SUBSISTENCE AGRICULTURAL ECONOMY

A Zimbabwe case study, 1956-1984

With 5 figures and 2 tables

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Zusammenfassung: Entwicklung von Siedlung und Landnutzung in einer agrarischen Subsistenzwirtschaft. Eine Fallstudie aus Zimbabwe, 1956-1984

Die Arbeit untersucht die Veränderungen im Siedlungsmuster und in der Bodennutzung in den durch die landwirtschaftliche Subsistenzwirtschaft geprägten Gebieten von Zimbabwe. Es wird ausgeführt, daß die Veränderungen seit der Kolonisation zu Ende des 19. Jahrhunderts auf das Zusammenspiel zweier Faktorengruppen zurückzuführen sind. Zum einen sind dies das Bevölkerungswachstum und die sich verschlechternde man-land ratio und zum anderen die Durchführung einer Reihe von politischen und gesetzlichen Maßnahmen zur Kontrolle der Landnutzung und Bodenerosion in den betreffenden Gebieten. Anhand einer systematischen Auswertung von Luftbildern eines kleinen Ausschnitts aus dem Raum Save North wurden Daten gewonnen, die den Einfluß der genannten Faktoren auf die Entwicklung von Siedlung und Bodennutzung belegen können.

1. Introduction

Two sets of factors have left an almost indelible mark on rural settlement and land use patterns in Zimbabwe. The first group of factors comprises a series of government policies which, before the attainment of political independence in 1980, discriminated against the majority black population and

set the framework for settlement patterns within those areas that were set aside for occupation by Africans. The second factor that has influenced settlement and land use patterns in the African farming areas is the high rate of population growth of the past few decades. The aim of this paper is to examine how these two sets of factors have influenced the magnitude and direction of change in settlement and land use patterns within the subsistence farming areas, commonly known as the communal farming areas in reference to the prevailing system of land tenure. Detailed analysis of land use changes within a small part of one of the communal areas over a 28-year period, 1956 to 1984, serves to illustrate the influence of these two sets of factors. By taking such a micro-scale approach, the paper also aims to complement recent national or macro-scale surveys of rural land use changes. The first part of the paper discusses the growth of population and its impact on patterns of rural land use in Zimbabwe. Key legislation and other state measures that have influenced settlement and land use in the communal farming areas since colonization are discussed in the second section. The third part describes the main geographical features of the study area. The fourth part of the paper outlines the methodology used to map and analyse the changes in land use in the study area. Results of the analysis are discussed in the fifth section of the paper.

2. Population growth and land use changes

Until the early part of this century, land was generally abundant and population densities were low over much of tropical Africa. The indigenous population usually practised either shifting cultivation or bush fallowing which, given the limited technology and tools at their disposal, left few permanent scars on the landscape. The imposition of colonial rule at the end of the nineteenth century not only involved the demarcation of new territorial boundaries that were used to control the movement of people and their use of land resources, but, in cases like Kenya and Zimbabwe, colonization was also accompanied by the large-scale alienation of land for white settlement. Consequently, the amount of land available for agricultural use by the indigenous population was greatly reduced. In the decades that followed, population has increased and much larger numbers of people now have to be supported on this reduced land area. In Zimbabwe, the African population, which has comprised not less than 95% of the total population since colonization, increased from an estimated 700 000 in 1901 to 3 million in 1954 and 7,4 million in 1982. At present, nearly 60% of the African population live in the communal farming areas where an estimated 30–35 000 new households are being added annually. KAY (1975) estimated that by 1969, 57% of the communal farming areas were already overpopulated or grossly overpopulated. Yet they still absorbed 59% of the 3,8 million increase in population between 1962 and 1982, compared with 30% who were absorbed in the urban areas and a mere 11% in the formerly white-owned large-scale commercial farming areas (ZINYAMA a. WHITLOW 1986). The average amount of land per capita in the communal farming areas decreased from 19 ha. in 1931 to a mere 4 ha. in 1982.

The deteriorating man-land ratio, combined with the implementation of government policies, forced the black population to change to a more permanent system of agriculture during the first two or so decades of this century. Unfortunately, the change has not been accompanied by a compensating increase in agricultural productivity, mainly because before independence African farmers were discriminated against by the colonial administration which sought to protect the agricultural commodities markets for the exclusive benefit of white settler farmers (NDLELA 1981). The adoption of a permanent system of agriculture and the resultant loss of fallow led to a decline in soil fertility and a reduction in crop yields. Faced with a deteriorating man-land ratio,

impoverished soils and a rapidly growing population, many communal area farmers have responded to the impending crisis by bringing more land under cultivation, including agriculturally marginal land such as on steep slopes and along watercourses. The clearance of the land has been exacerbated by the growing shortage of woodfuel in the rural areas.

The problems of land degradation in the subsistence farming sector have received considerable attention especially in recent years as the new independence government grapples with the task of developing these previously neglected areas (ZINYAMA 1986). A major conference with participants from all sectors of the economy was held in November 1985 to map out a National Conservation Strategy within the framework of the United Nations Environment Programme's World Conservation Strategy (*Ministry of Natural Resources and Tourism* 1985). A number of macro-scale or national and meso-scale surveys on rural land use changes and land degradation have also been conducted during the last few years (MAZAMBANI 1980; MUNZWA 1979; WHITLOW 1979, 1980, 1987). Using data from a nationwide sample of aerial photographs, WHITLOW (1980) found that the area under cultivation throughout the country increased by +0,8% per year between the early 1960's and the early 1970's. Dense woody vegetation decreased as a result of tree-felling, principally for cultivation and woodfuel, by between -0,4% and -1,6% annually while the area of sparse woody vegetation increased by +1,2% during the same period. He also found from an analysis of photographs for the period 1972–77 that the proportion of the total land in the communal farming areas under cultivation each year, including fallow, was 24,7% (or 13,6% excluding fallow), compared with 16,4% nationally and only 12,2% in the large-scale commercial farming areas alone (WHITLOW 1979). For communal farming areas within Agro-ecological Region III, the proportion under cultivation, including fallow, rose to 33,1% of their total area, or 18,2% when fallow land was excluded (see later for explanation of agro-ecological regions).

3. Legislation and policies affecting rural land uses

The apportionment of land by race, which started with the establishment of the first two African reserves in western Zimbabwe in 1894, was institutionalised by the Land Apportionment Act of 1930 and culminated in the Land Tenure Act of 1969. Under the latter Act, land was divided equally

Table 1: Chronology of legislative and political landmarks in the evolution of settlement and land use patterns in the communal farming areas of Zimbabwe

Gesetzliche und politische Marksteine für die Entwicklung des Siedlungsmusters und der Bodennutzung in den „communal farming“-Gebieten von Zimbabwe	
1890	- Colonization by the British South Africa Company
1894	- First African reserves established
1926	- D.E. Alvord appointed director of native agriculture
1929	- Programme of 'centralization' launched
1930	- Land Apportionment Act
1951	- Native Land Husbandry Act
1955	- Implementation of the Land Husbandry Act accelerated
1964	- Implementation of the Land Husbandry Act abandoned
1967	- Tribal Trust Land Act
1969	- Land Tenure Act
1972	- War for independence begins to intensify
1980	- Attainment of political independence
1980	- District Councils Amendment Act
1982	- Communal Land Act

between the two races, with whites (including Asians) having exclusive right to 46,6%, blacks occupying another 46,6% and the remaining 6,8% designated as national parks and forest lands. But the influence of government has not been confined to the broad allocation of land between the two racial groups. A variety of laws and policies have, over several decades, influenced the changing patterns of settlement and land use within the African communal farming areas (Table 1). These policies and their impact are discussed in the following paragraphs.

The alienation of land for white settlement and the eviction of blacks from the alienated lands precipitated rapid land degradation within the African reservations. The impending crisis did not go unnoticed by the authorities. However, the official position was that land degradation was the result, not of increasing population pressure, but of backward farming practices on the part of the Africans. In 1926, an American missionary-agriculturist, D. E. ALVORD, was appointed the first director of the newly established Department of Native Agriculture. The primary task of the department was to get African farmers to adopt prescribed soil conservation methods, with extension staff (supported by district administrators) often resorting to compulsion to achieve their objectives. A continuing legacy of ALVORD's work to this day was the launching in 1929

of a programme to rationalise land uses in the African farming areas in order to put a stop in the practice of shifting cultivation. The effect of the rationalization programme, or 'centralization' as it was called, was to produce a pattern of linear settlements that separated large consolidated blocks of arable and grazing lands on either side. The long lines of villages usually ran parallel to the rivers and watercourses, with the dry arable land above and the wet grazing areas below the settlements. This way, crops would be more protected from stray livestock during the growing season; in the dry season the animals were allowed to roam freely grazing on the crop residues in the croplands.

The re-organization of settlement and land uses within the communal farming areas along the lines started by ALVORD was embodied into law with the passing of the Native Land Husbandry Act in 1951. Among other things, land in these areas was to be re-allocated by the staff of the Department of Native Agriculture only to those families who were cultivating at the time of applying the Act to any area. People absent from the area at the time would cease to have any right to land thereafter. Communal area farmers had traditionally cultivated alluvial flats and wetlands under dry season crops (eg. green mealies and rice), vegetable gardens as well as ridge cultivation of an artichoke-like edible tuber called *Coleus esculentus* (vernacular: tsenza), thereby adding to the overall quantity and variety of household food supplies. Henceforth, wetland cultivation was to be prohibited because it was argued that tillage of these lowlying areas was one of the major causes of soil erosion. The Act also proposed to change the system of tenure from communal to individual ownership, whereby land could be sold and bought, but could not be subdivided below a minimum size prescribed for each area. Implementation of the Act began in earnest in 1955 and continued until 1964 when the government was compelled to abandon the programme because of mounting political opposition from the African population (*Rhodesia* 1964).

In the years following the unilateral declaration of independence (UDI) by the white minority government in 1965, an attempt was made to introduce a modified version of the policy of apartheid under the guise of implementing a community development approach to rural development, with traditional African leaders acceptable to the government delegated to run their local areas (BRATTON 1978, MUTIZWA-MANGIZA 1985). A number of administrative functions as well as the provision of services and infrastructure were devolved to chiefs and inade-

quately funded local councils in the communal farming areas (ZINYAMA 1987). One such responsibility was the allocation of land in the communal farming areas which, although informally devolved in 1964, was legally transferred under the Tribal Trust Land Act of 1967 from the district commissioners and agricultural extension staff to the chiefs acting through their Tribal Land Authorities. In practice, land allocation by the chiefs was not always based on sound ecological and conservation principles. Chiefs and members of the Tribal Land Authorities were also often accused of taking bribes and practising favouritism in the allocation of land. A few of them, not wishing to be associated with the implementation of politically unpopular land policies, made little attempt to prevent the extension of cultivation onto land that had previously been designated for grazing within their areas.

The mid-1960's were therefore a turning point in the evolution of settlement and land use patterns in the communal farming areas of Zimbabwe. The period marks the beginning of the breakdown of, and departure from, the strictly controlled and planned land use distribution patterns that had been implemented since the time of ALVORD. Unauthorized cultivation of land became more marked during the 1970's as the war for political independence intensified in the rural areas. Both the traditional chiefs (many of whom were regarded as collaborators by the nationalist guerrillas) and the civilian district administrators found it increasingly difficult to maintain control over the clearance of land within the communal areas. Given a deteriorating man-land ratio, a local administrative structure that was increasingly pre-occupied with the anti-guerrilla campaign rather than civil administration, and overworked and impoverished soils in the officially zoned arable lands, many families chose to extend their lands and to clear grazing areas for cultivation and settlement.

For some time after independence in 1980, it was not clear who was responsible for land allocation, and hence the resultant land use patterns, in the communal farming areas between the chiefs and tribal land authorities as prescribed under the Tribal Trust Land Act (1967, 1979) on one hand or the newly established democratic local government structures on the other. New legislation, the District Councils Amendment Act (1980), providing for the establishment of the new system of local administration in the communal farming areas, only prescribed that district councils could be given powers to act as conservation committees and be responsible for natural resources conservation within their areas. Legally,

responsibility for land allocation was still in the hands of, by now, ineffectual and largely discredited traditional chiefs. The Tribal Trust Land Act was finally repealed in 1982 following the enactment of the Communal Land Act (1982). The new Act transferred responsibility for the occupation and use of communal land for agricultural and residential purposes to the new district councils.

4. The study area and its district

An overview of the two forces – population growth and state policies – and their influence on the direction and magnitude of change in settlement and land use patterns has been given in the preceding sections. It is now necessary to examine these changes in some detail. A small area was selected for detailed micro-scale study of land use changes. The study area, which lies within Save North communal area, is situated 170 km southeast of Harare, the capital city (Fig. 1). Save North covers an area of 1290 sq. km. Administratively, it is part of the Chikomba district which includes Nharira and Manyene communal areas. The district administrative centre is Sadza, which is located within the study area. Since 1980, the government has decentralized many social, administrative and economic services into the rural areas in order to make these facilities more accessible to the majority of the population. Sadza, as one of the designated rural service centres, has experienced considerable expansion during the last few years.

Zimbabwe is divided for agricultural purposes into five *agroecological regions*, with rainfall becoming less in both amount and reliability from Region I to Region V (after VINCENT a. THOMAS 1962). Save North communal area falls with Region III, which is ideally suitable for semi-intensive farming based on both livestock ranching and crop production under good management. Although rainfall is moderate (650–800 mm per year), much of it occurs in infrequent heavy downpours which, coupled with high temperatures and widespread granitic sandy soils, reduce its effectiveness for rainfed crop production. Region III is also subject to fairly severe mid-season dry spells which can reduce crop yields. The climax vegetation of the area would be open savanna (or miombo) woodland dominated by *Brachystegia spiciformis* (vernacular: musasa) and *Julbernardia globiflora* (munhondo) in the undulating areas and by *Brachystegia glaucescens* (muunze) and *Uapaca kirkiana* (muzhanje) on rocky sites and hills. Lower lying areas liable to seasonal waterlogging would carry open

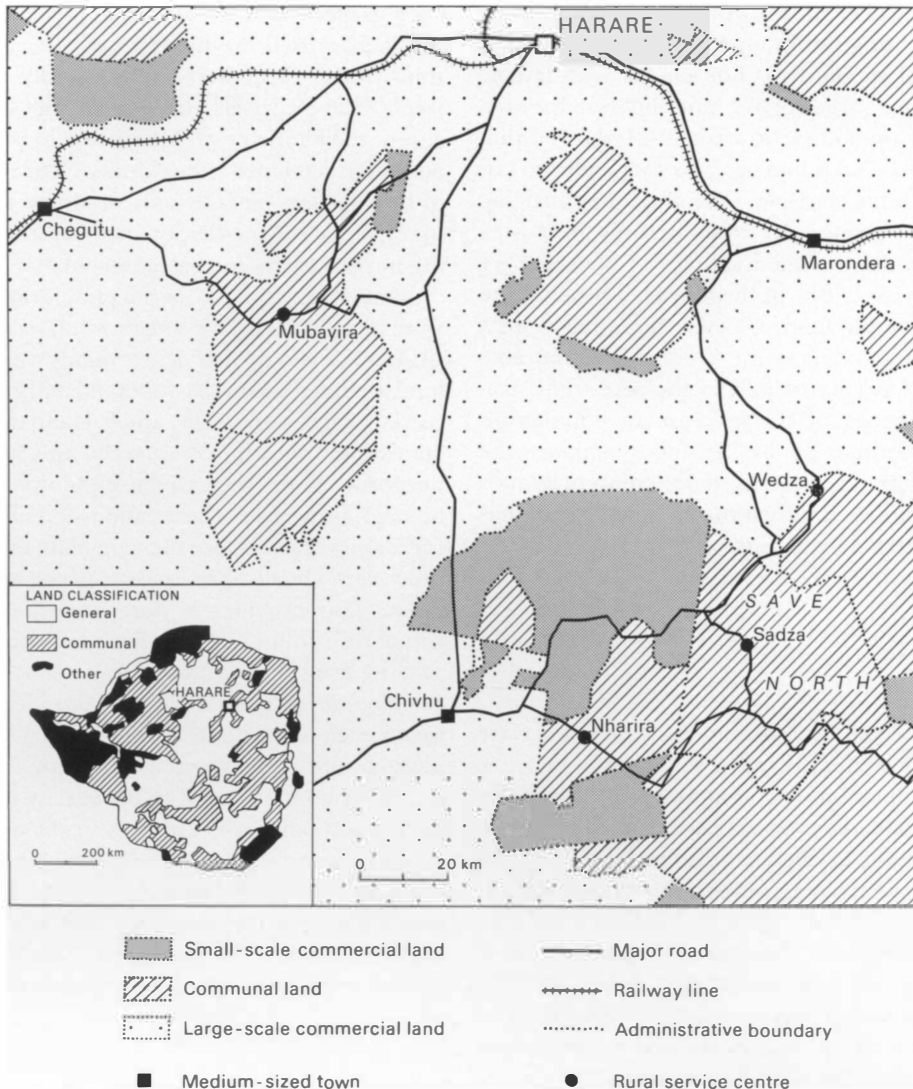


Fig. 1: Location of Save North communal farming area
Lage des „communal farming“-Gebietes Save North

grassland, often dotted with bushes of the waterberry *Syzygium spp.* (mukute). Much of the study area itself comprises of undulating relief with altitude varying between 1340 m and 1380 m above sea level, becoming dissected and lower (to 1300 m) in the southwest. It rises in the northeast to a range of hills that reach 1480 m.

The population of Save North communal area has increased by 66% from 37 800 in 1962 to 62 900 in 1982 (census figures). Average density has increased from an estimated 19 persons per sq. km in the mid-1950's to 38 per sq. km in 1969 and 49 per sq. km in 1982. At the 1982 census, the study area itself was

split between five enumeration areas, three of them recording densities greater than 40 persons per sq. km, including one that had just over 200 per sq. km. 'Centralization' or the rationalization of land uses was started in Save North in 1940. By the time the re-allocation of land in terms of the Native Land Husbandry Act was implemented in the area between 1959 and 1961, the inhabitants were already living in linear villages. Estimates compiled by a resource assessment committee made up of district officials in preparation for the re-allocation of land showed that landholders had an average of 4 ha of arable land in the mid-1950's (*S. Rhodesia* 1955-59). The committee

set the standard allocation of arable land to be granted to each cultivating family in Save North at 3,2 ha, with a smaller amount for households with female heads. A sample survey of 371 households in the area conducted by the author in early 1984 showed that 60% of the households had usufructuary rights to less than 2 ha of arable land each. Another one-third had what might be termed, by communal farming area standards, medium-sized holdings of between 2,1 and 4 ha each; only 2% of the households had more than 4 ha of arable land. Clearly, there has been a considerable reduction in the average size of arable land available per household in the area. This is a direct consequence of the increase in population. Increasing shortage of arable land explains the encroachment that has occurred onto marginal lands and grazing areas. Cultivation on steep slopes has caused considerable gulying as well.

5. Methodology

An area of 28 sq. km around Sadza rural service centre was selected for detailed mapping in order to examine the direction and magnitude of change in settlement and land use over a period of twenty-eight years, 1956 to 1984. The analysis was based on data obtained after systematic comparative mapping from panchromatic aerial photographs taken in 1956 (the first ever photographic coverage of the area), 1964, 1971 and 1984. Although aerial photography for 1976 is available as well, it was considered unnecessary to include it in this study. Each of the four selected dates more or less coincides with major government policy directions outlined above, while the 1956 photography also provides a baseline for analysing subsequent changes. By 1956, 'centralization' had been completed in the area, but the Native Land Husbandry Act was still to be implemented. Therefore, comparison of the 1956 and 1964 photographs illustrates the changes in settlement and land use that occurred as a result of the implementation of the Act in the area. The latter date also coincides with the government's decision to abandon implementation of the Act. The years 1964-1971 mark a transitional period during which government was relinquishing direct control over the allocation and utilization of land within the communal areas, but there was still some modicum of authority in the form of traditional chiefs and the Tribal Land Authorities to influence land use patterns. From the mid-1970's to 1984, there was no clearly defined and effective local authority to control

land usage, firstly because the intensification of the war had caused the breakdown of normal civil administrative structures and secondly because between 1980 and 1984 the new district councils were still in their infancy and their role in respect of land allocation remained to be clarified. The impact of each of these phases on land uses would be superimposed upon, as well as modify, the patterns that were evolving in response to increasing population pressure.

In mapping from the aerial photographs, land uses were classified into five categories: (i) cultivated land, (ii) land covered with dense woody vegetation, (iii) land occupied by sparse woodland and grass, (iv) land used for farm settlement, and (v) land that is used for educational, health, commercial and administrative purposes. Three points relating to this classification of land uses need clarification. Firstly, cultivated areas showing evidence of having lain fallow for some time were classified as under sparse woodland and grass. This provides a more accurate reflection of actual utilization since such land is usually used for grazing even during the rainy season. Secondly, in calculating the amount of land used for farm settlement, each of the homesteads identified on the aerial photographs was assumed to occupy 0,25 ha. This average amount is based on the author's observations during the course of fieldwork in the area. Thirdly, many households cultivate small vegetable gardens, often no more than 100 sq. m in extent, along rivers and streams, using the water for hand irrigation during dry periods. It was not always possible to include these tiny pockets within the category of arable land.

6. Results and discussion

The direction and magnitude of changes in settlement and land use patterns within the study area are shown in Figs. 2-5 and summarised in Table 2. The effects of ALVORD's 'centralization' programme are clearly visible on the land use map for 1956, with linear settlement separating large blocks of arable and grazing land on either side (Fig. 2). Areas of broken relief, particularly in the extreme northeast and southwest, were devoid of cultivation in conformity with the rigid soil conservation and land use control measures in force at the time. By 1964, the only intrusion of settlement and cultivation into land designated as grazing had occurred to the east of Sadza service centre where a religious sect had been permitted to establish a church and a small settlement (Fig. 3). Unlike the Native Land Husbandry Act,

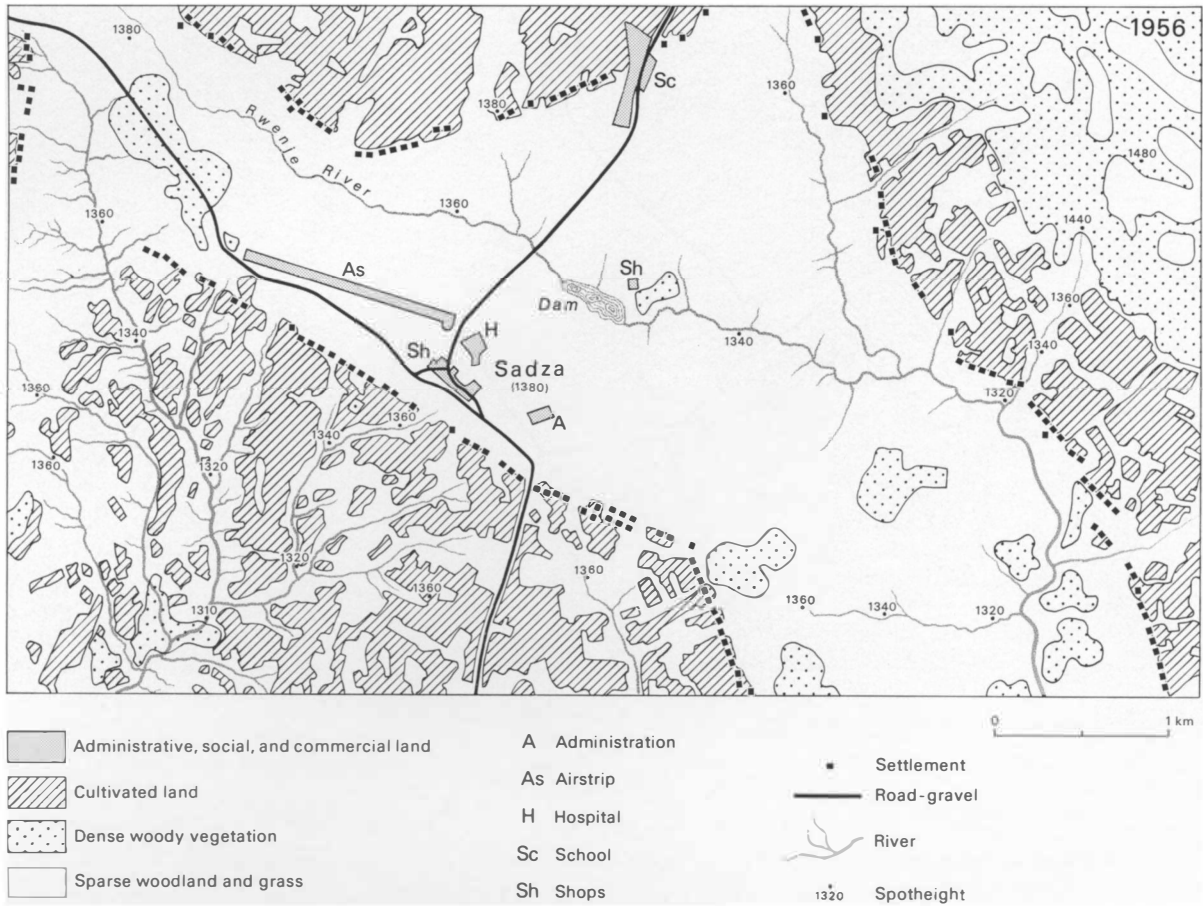


Fig. 2: Settlement and land use patterns within the study area, 1956
Siedlungen und Bodennutzung im Untersuchungsgebiet 1956

‘centralization’ did not involve substantial re-allocation of land. The difference between the two policies is manifest in the changes in land use between 1956 and 1964. Before the implementation of the Land Husbandry Act, farmers were relatively free,

after receiving the consent of the community elders, to cultivate whatever land was available within the zones designated as arable land. Extensive farming, involving the cultivation of almost all the available land within the prescribed arable zones, was therefore

Table 2: Changes in land use in the study area, 1956 to 1984

Entwicklung der Bodennutzung im Untersuchungsgebiet 1956 bis 1984

	% of area occupied				annual % change		
	1956	1964	1971	1984	1956-64	1964-71	1971-84
Cultivated land	20.7	17.0	22.0	29.7	- 2.1	+ 4.4	+ 2.7
Dense woody vegetation	9.9	9.5	6.2	3.3	- 0.3	- 4.9	- 3.6
Sparse woodland and grass	67.0	70.5	68.9	61.6	+ 0.8	- 0.2	- 0.8
Settlement	1.8	1.9	2.1	2.9	+ 0.6	+ 1.4	+ 3.4
Administration, social & commercial land	0.6	1.1	0.8	2.5	+ 8.5	- 3.1	+ 15.3
Total	100.0	100.0	100.0	100.0			

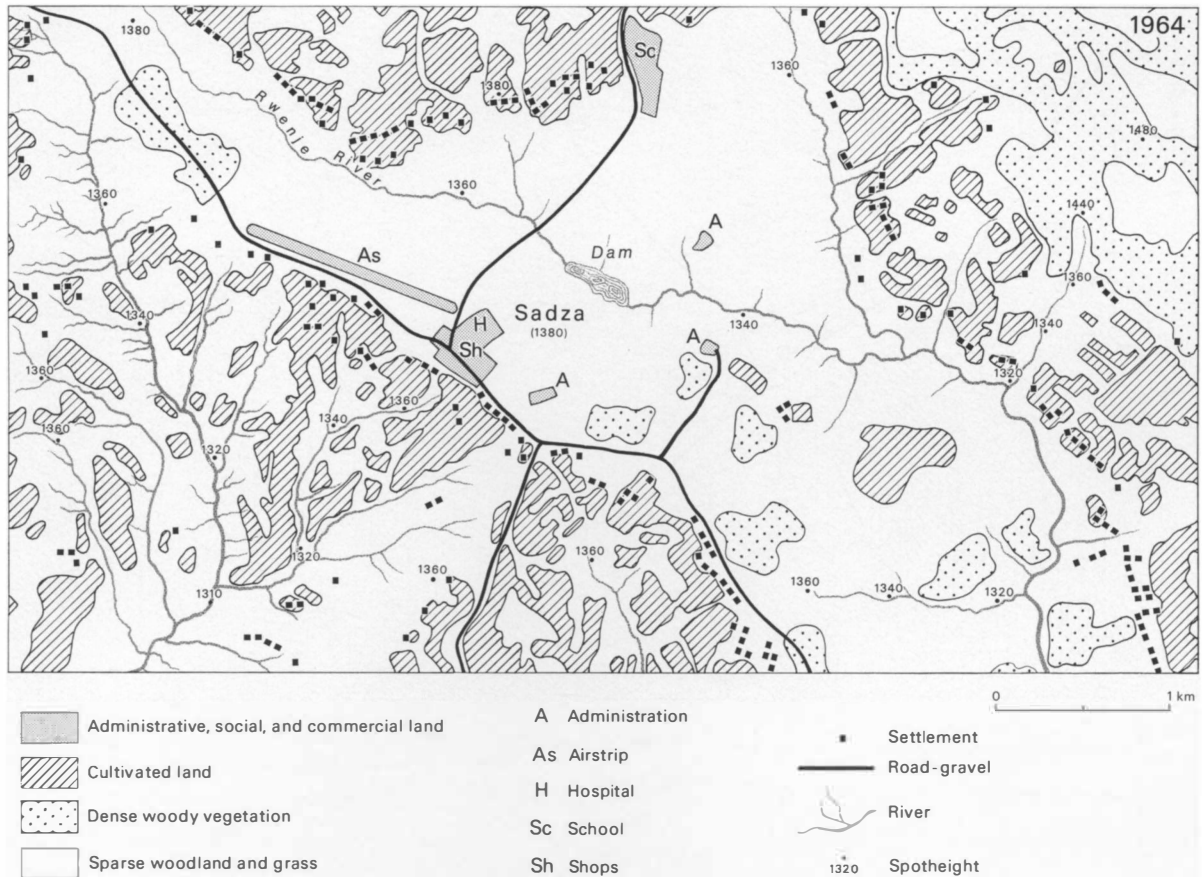


Fig. 3: Settlement and land use patterns within the study area, 1964
Siedlungen und Bodennutzung im Untersuchungsgebiet 1964

used to maintain food supplies to feed an expanding population. Implementation of the Act in the late 1950's, including the setting of a standard size of arable land per cultivator, led to a reduction in the area under cultivation from 20,7% of the total area in 1956 to 17,0% in 1964 (Table 2). This represents an annual rate of change in the amount of arable land of -2,1%. The land thus excised from cultivation was utilized for grazing, resulting in a corresponding increase in the proportion of the area under sparse woodland and grass from 67,0% in 1956 to 70,5% in 1964. Much of the land that was transferred from arable to grazing was situated along rivers and in seasonally waterlogged vleis, as required in terms of the Land Husbandry Act, particularly in the area south and southwest of Sadza where numerous streams occur.

Although district administration staff were already complaining in the late 1950's about the rapid rate of

disappearance of woodland in Save North (*S. Rhodesia* 1955-59), dense woody vegetation still covered almost 10% of the total study area even in 1964. The rate of decrease in the area under dense forest vegetation was only -0,3% per year between 1956 and 1964. Land used for administrative and commercial activities, although occupying the smallest area, had the fastest annual rate of change of + 8,5% between 1956 and 1964. The high rate was due to the development of more trading shops at Sadza as well as the construction of government premises nearby, notably a rest camp and sub-office for the district commissioner and his staff and accommodation plus a demonstration plot for a new agricultural extension worker for the area.

Considerable changes in land use and settlement patterns occurred between 1964 and 1971, following the withdrawal of tight government controls in the mid-1960's. By 1971, cultivation and settlement had

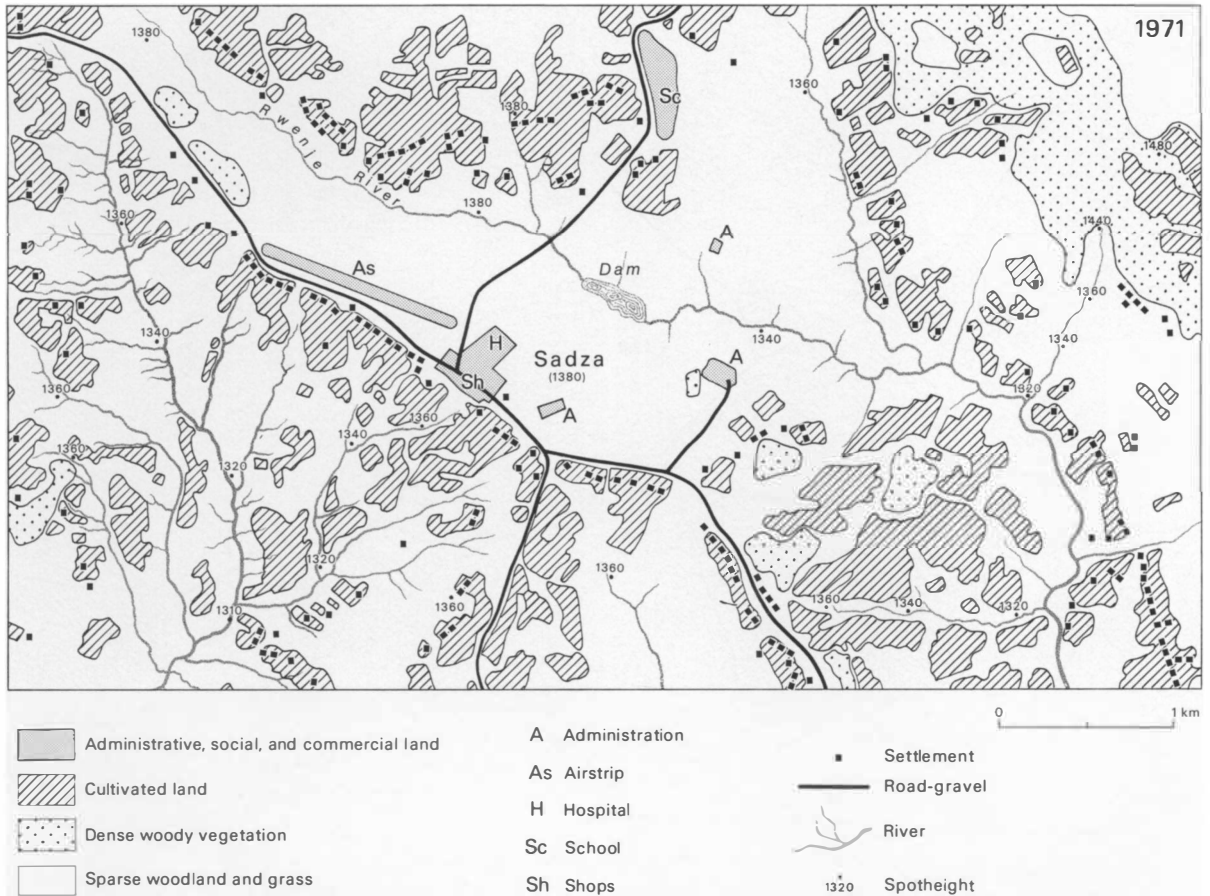


Fig. 4: Settlement and land use patterns within the study area, 1971
 Siedlungen und Bodennutzung im Untersuchungsgebiet 1971

extended quite substantially into areas previously designated for grazing (Fig. 4). The most affected area was to the east where many households had abandoned their former arable lands on the grounds that the soils had become impoverished because of prolonged permanent cultivation. They had now opened new land for cultivation between the road and the River Rwenje as well as on flat hill summits in the extreme northeast. For most households, this entailed only a relocation of arable lands, with their homesteads remaining in the linear villages. However, throughout the study area, there was also a progressive extension of cultivation and settlement on the edges of the arable lands into the grazing areas. Much of this process of conversion of land uses was initiated by newly established families who could not be provided with land within the arable zones. A more dispersed settlement pattern was therefore being superimposed onto the original linear pattern. Clearly,

the tribal authorities who had been delegated by government the responsibility for land allocation were ineffective in controlling the extension of cultivation within the grazing areas. However, the presence of the main road and the airstrip (though largely disused from the mid-1960's until recently) west of Sadza service centre remained an effective barrier against the extension of cultivation northwards towards the River Rwenje.

As a result of these changes in land uses, the proportion of cultivated land increased from 17,0% in 1964 to 22,0% in 1971, with an annual rate of change of +4,4%. Dense woody vegetation experienced the fastest annual rate of change of -4,9% and the proportion of the area it covered decreased to 6,2% by 1971. Much of this decrease in forest vegetation was due to clearance for cultivation in both the lowlying areas and on hill summits in the east of the study area. The proportion of land under sparse woodland and

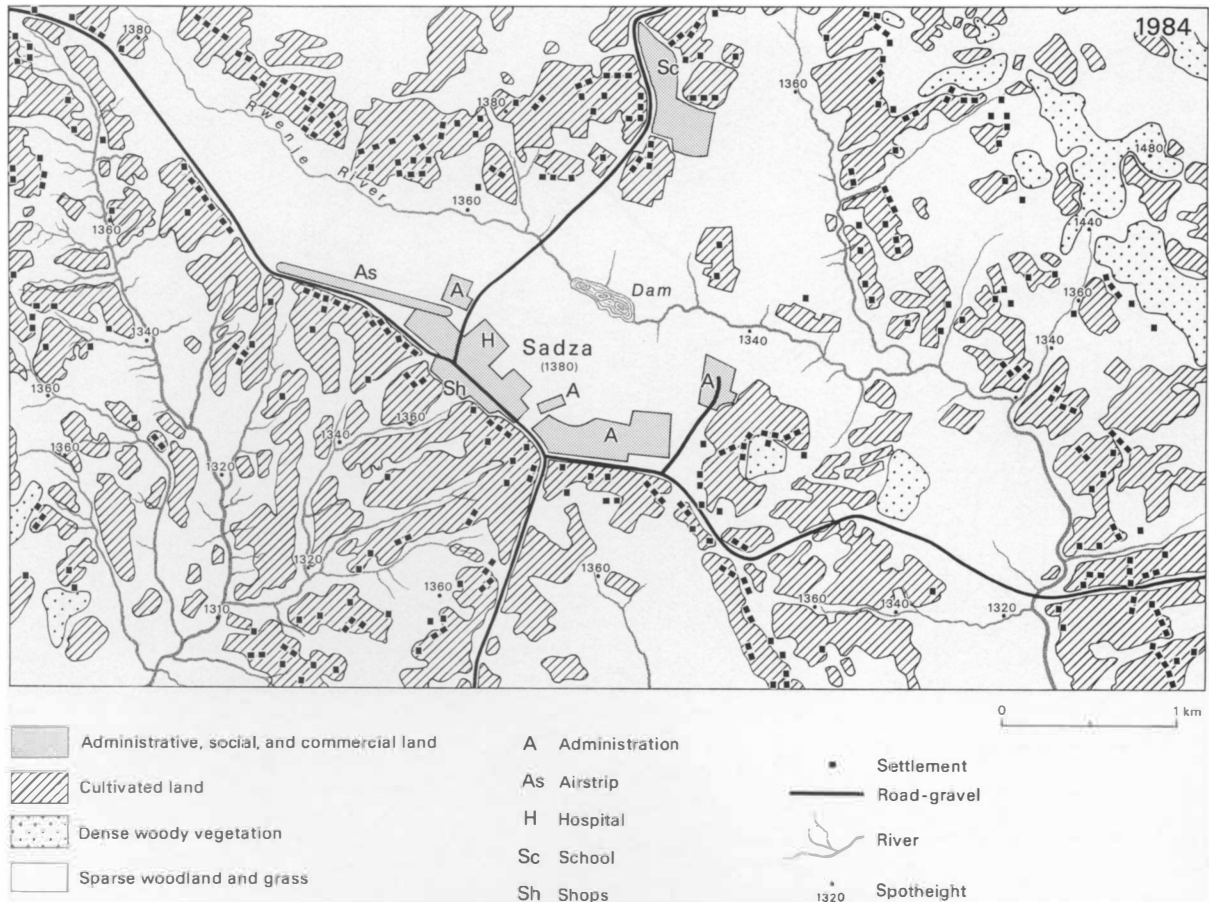


Fig. 5: Settlement and land use patterns within the study area, 1984
 Siedlungen und Bodennutzung im Untersuchungsgebiet 1984

grass remained relatively unchanged, from 70,5% in 1964 to 68,9% in 1971, mainly because of abandoned arable land reverting to grassland to replace whatever land with woody vegetation was being cleared for cultivation and settlement.

During the last phase, 1971 to 1984, the most significant changes occurred in the proportion of land used for administrative and social purposes. The post-independence expansion and decentralization of government functions and services to rural centres, including Sadza, and the establishment of a secondary school adjacent to the old primary school, account for the increase in the proportion of the area in this category, from 0,8% in 1971 to 2,5% in 1984. The area under cultivation continued to increase as well to 29,7% of the total area by 1984. Two features characterise the changes in the distribution of arable land between 1971 and 1984 (Fig. 5). First, some of the land that had been cleared for cultivation during the previous period, including the hill summits in the

northeast, has been abandoned in recent years and the cultivators returned to their former lands. Second, the process of accretion at the edges of the arable lands towards the rivers and vleis has continued, with considerably more cultivation and settlement now taking place in these areas. Attempts by the newly established local government structures to control the incidence of cultivation in vleis and grazing areas have not proved effective so far. As the area of cultivation has increased, that under sparse woodland and grass has decreased, from 68,9% of the total area in 1971 to 61,6% in 1984. Dense woody vegetation now covers a mere 3% of the total area and is now confined to a few small areas on steep slopes.

The reduction in the amount of unoccupied land for use as grazing, from four-fifths to two-thirds of the total area between 1964 and 1984, has implications on livestock farming and environmental degradation. Since the early 1960's when government destocking programmes in the communal farming areas were

stopped, the number of livestock, mainly cattle and goats, in the area has steadily increased while the grazing land has diminished in both size and quality. The result of this deterioration in the animal/land ratio has been progressive overgrazing and widespread sheet and gully erosion.

7. Concluding remarks

The paper has attempted to explain the evolution of settlement and land uses in the subsistence farming areas of Zimbabwe. It has been argued that the changes that have occurred over the last 90 years or so are the result of the interplay of two groups of factors: population growth and the implementation of government policies. The communal farming areas present the most intractable problems of development facing the new black majority government. Immediately after independence, a programme was launched to resettle some of the population from the overcrowded communal farming areas on former commercial farmland in order to relieve population pressure in the former areas. The programme has not progressed as quickly as was originally envisaged, partly because of the lack of money for land purchase and development by government. It is evident that the communal farming areas will continue to support the majority of the national population for the foreseeable future. As the government seeks to develop these areas and improve the quality of life of their inhabitants, it has become increasingly obvious that this cannot be achieved without considerable spatial re-organization of settlement and land use patterns again. The existing linear and dispersed settlement patterns do not always facilitate the provision of basic facilities such as safe drinking water. Efforts are therefore being made to regroup the rural population into nucleated villages so that costs of service provision can be minimised. Pilot schemes have already been launched in parts of the country to re-consolidate arable and grazing lands in order to bring about a more efficient utilization of land resources. A major difference between past and present strategies for the spatial re-organization of rural settlement and land use patterns is that, today, the inhabitants are being encouraged rather than coerced to accept settlement regrouping and land consolidation through their village and ward development committees. The paper further suggests that an appreciation of the significance of the changing political environment, particularly in former colonies, is essential for a proper

understanding of the evolution of land uses, whether in urban or rural areas. Changes in rural land uses cannot be explained in terms of the impact of increasing population pressure on land resources alone.

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