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Changing Perceptions on Agricultural Land Tenure under Commercialization among Small-scale Farmers : the Case of Chinaena Village in Chibombo District (Kabwe Rural), Central Zambia

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Key words : Land Tenure, Commercialization, Small-scale Farmers, Dambo, Central Zambia

1 Introduction

The purpose for undertaking this research was to find out whether in Chinaena village, where there is a high level of commercial production especially of maize and vegetables, there are any changes in how the small scale farmers perceive their relationship to the traditional land which they presently cultivate. It is generally assumed that with increasing commercial agricultural production, farmers' attitudes to their land begin to change as they place more value on their land. Such changes in perception tend to result from the fact that the farmers use their land more intensively and therefore recognise land to be an important resource unlike the case under less intensive land use systems.

The paper has therefore attempted to show that there is sufficient evidence to suggest that agricultural commercialization is taking place in the study area, and that already land scarcity is being experienced. Furthermore, land use practices have begun to suggest tendencies towards individualization of tenure.

The paper is therefore organised in four sections. Section 1 summarises the background and literature review—drawing from the work already published on the background. Section 2 gives some evidence of agricultural commercialization; A discussion on land scarcity and disputes is undertaken in section 3; while section 4 explores the tendencies towards individualization of tenure.

2 The background and literature review

The field work was started in mid August 1992 with a team of Japanese Researchers led by Prof. Shuhei Shimada of the Institute of Geography, Faculty of Science, Tohoku University. Most of the data for this paper was however, collected between 3rd to 10th September 1994 in the company of Profs. Kazuo Hanzawa and Shiro Kodamaya, as part of the on going co-research with the Japanese team and the author. This study on changing perceptions on agricultural land tenure was a follow up and a contribution to the research on Agricultural land use and Environmental Change of Dambo, with particular reference to Chinena Village in Chibombo District, Central Zambia (Shimada 1993).

According to Shimada *et al.* (1993, p. 29) Chinena village where the utilization of dambo land was intensively studied, is about 90 km north of Lusaka on the Great North Road. A dirt road leading to the dambo stretches from the main road for about 6 Km east of the tared road. The village is in Chibombo ward of Chibombo District or what was known up to 1992 as Kabwe Rural, among the Lenje speaking peoples of Senior Chief Mukuai (Liteta).

The village which was founded in 1974 has about 90 households (Shimada *et al.* 1993 p. 29), and had an estimated total population of between 199 to 205 men, women and children by September 1994. The villagers who are scattered in homesteads on the interfluvial upland have been attracted to the area by the six headwater dambos which provide upland for maize fields and dambo land for irrigated tomato and vegetable production throughout the year.

Hanzawa (1993) observed that small scale farmers in Chinena village were able to intensively cultivate the dambo land for commercial maize and vegetable production, despite the fact that it is traditional land in an area categorized as Trust Land (Fig. 1), and is therefore under customary tenure.

Vegetable production began in 1976 when some immigrants from Zimbabwe settled in the village. Although soil fertility around the dambo tends to be low, the villagers are using modern methods of applying cattle manure as well as chemical fertilizers, improved varieties of seeds and pesticides (Hanzawa 1993, p. 44 and p. 48).

The two crops of vegetables per year are marketed in three ways: firstly, some merchants from Lusaka and the Copperbelt come to the village to purchase the items; secondly, some entrepreneurs within the village such as one very successful farmer (Mr X) with two trucks and a combe, use their own transport with which they deliver the vegetables—mostly tomatoes, Chinese rape, water melons, green peppers and cucumbers to Lusaka, charging K500 per box of tomatoes and a pocket of rape, and K1,200 per 90 kg bag of water melons; and thirdly, the farmers themselves use oxen drawn carts to transport the produce to the principal road and sell to merchants from the

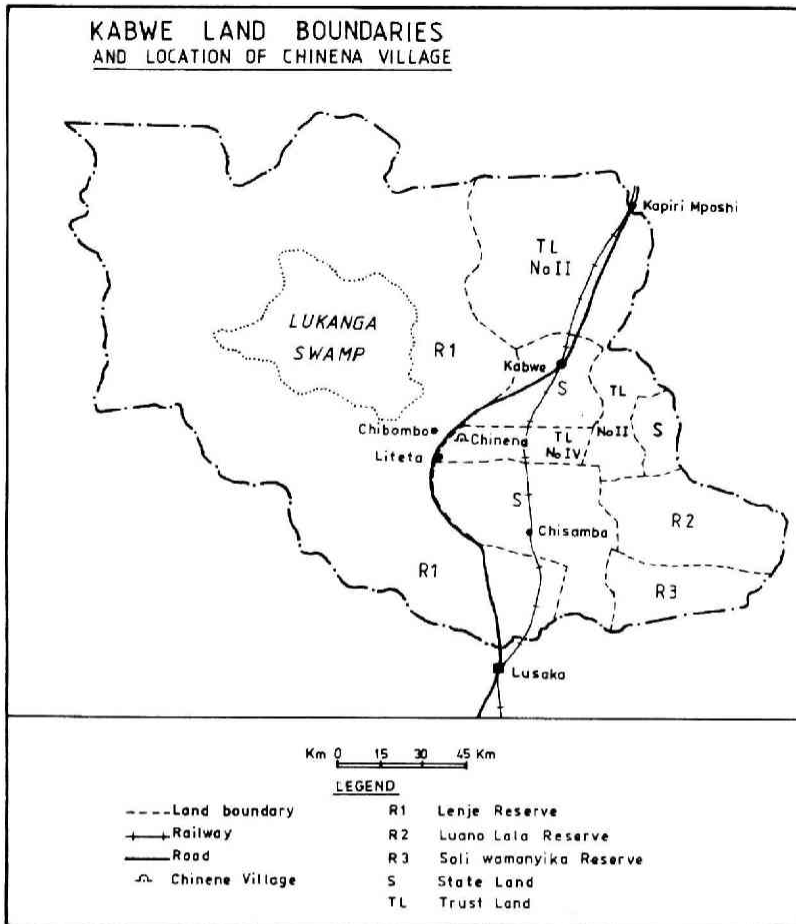


Fig. 1 (Based on Munteмба S.M. 1977, p. 204)

Copperbelt there (Hanzawa 1993, p. 48).

Hanzawa further observed that there was a high tempo of economic activity in Chinena village. He states that there is increased and vibrant economic activity in the village “due to multi-ethnic society. Traditional and monoethnic society generally has various social customs. And with regard to economic aspect, such a society has a system which refuse for specific individuals to accumulate wealth. However, it seems that there is no such system in Chinena village. It is probably possible for a specific person to accumulate wealth” (Hanzawa 1993, p. 48)

With respect to agricultural land tenure which White (1959) defines as “the rights of individuals or groups over arables, grazing and residential land, how such rights are

acquired, at they consist of, how they operate in the holding, transfer and inheritance of land and how they may be extinguished" (White 1959 p.172). Bulenje and the Central Province of Zambia (where Chinena village is located), gradually began to experience changes in attitudes towards land as was the case in the Southern Province (especially in Mazabuka district) among the sister matrilineal Tonga peoples, after the imposition of colonial rule in the 1890s. During the pre-colonial period, Muntemba (1977a) points out that apart from participating in long distance trade with the Portuguese, and in interregional trade with the Soli, Ila and Sala from whom they obtained cattle, salt, copper and ivory in return for iron ore, the Lenje people also cultivated crops such as sorghum (the staple food), millet and local maize under hoe cultivation for subsistence (Muntemba 1977a p. 347).

Generally, pre-colonial African land tenure under conditions of production for subsistence and Chitemene mode of non permanent cultivation, was organised in such a way that each cultivator enjoyed the usufructory or user rights on the land (Kay 1964). There was no private ownership of land, although the chief acted as custodian for his people (July 1975, p. 89) and every individual within the community had security of tenure (Yudelman 1964, p. 14). For those who raised cattle, grazing was done on communal grazing land. According to Muntemba, although the Lenje at this time accumulated cattle for trading, for consumption and for conspicuous wealth, they could not be used as draught animals before the introduction of the plough, and "there is no evidence that manure was ever used for agricultural purposes" (Muntemba 1977, p. 349)

Among the Tonga in the Southern Province, where transformations had been underway for some time during the colonial period and where former subsistence farmers had rapidly adopted from European settler farmers, modern methods of farming to produce maize for the market, a small group of small holder farmers constituting about 14% of the families had emerged; together with another small group of those who could be called farmers-constituting only 1% of families (Allan *et al.* 1945, p. 1). It is quite probable that it was among these two groups that attitudes towards individualization of agricultural land tenure were most apparent.

During this period and prior to such changes, an individual could acquire a piece of land for cultivation in the following ways:

- (a) by clearing for cultivation or by working or signifying his intention or clearing virgin or regenerated and unclaimed land;
- (b) by transference of rights from one individual to another, temporarily or permanently;
- (c) by inheritance (through the matrilineal system in which the children belonged to and inherited property through the women's clan/lineage-especially from their uncles); and

(d) by taking into cultivation his own vacated hut sites and their surrounds (Conroy 1945, p. 82).

Conroy further states that once an individual had acquired land by any of the means listed above, "his right to it is absolute so long as he continues to cultivate. He may not sell the land nor apparently may he bequeath it but... he may during his life time transfer his rights in all or part of the land to any member of the chisi or, with the consent of (the) chief and headman, to a stranger. If he leaves the village and does not intend to return he can and usually first transfer his land rights to a relative or a friend" (Conroy 1945, p. 96).

The commission of Inquiry which was led by Justice E.L. Sakala and was appointed in 1980 by the Kaunda government to examine land matters in the Southern Province, seems to reaffirm these principles of land holding among the Tonga. The Sakala Land Commission (GRZ 1982) states that "the characteristic feature of the Tonga land holding is the distinct existence of well defined individual rights in land. Any specific parcel of land is identified by being owned by a particular individual. Once so owned as individual rights cannot be interfered with or extinguished by anybody. Neither the chief nor the headman can dispossess an individual of his land. The only way the chief and headman could indirectly interfere with an individuals title was by expelling such a land holder from the area on account of having committed a heinous offence. Otherwise security of tenure is still assured for as long as one resides in the area within which his land is situated" (GRZ 1983, p. 9).

In addition, there were also communal rights. Cattle were/are allowed to graze in communal land. Grazing rights extend to fields individually owned after harvesting. Furthermore, there was also the recognition of the concept of Katongo-under which original family members in the village could claim group title to the land over which they had originally established villages, and some land could not be made available to any non-family members (GRZ 1982, p. 1).

With the imposition of colonial rule in the 1890s and the introduction of commercial maize production after the turn of the century and especially after the first world war, certain radical transformations began to take place. The introduction of commercial European Settler agriculture in areas which had been demarcated as crown land (now state land) in the 1920s, and which were adjacent to Native Reserves (now Reserves) (Siddle 1971, p. 49), created pressures among those Africans that had adopted the new technology and methods of cultivation, for the individualization of agricultural land tenure so that market production of maize and other cash crops like cotton and tobacco could further be promoted.

According to Muntemba (1977a) to the local people of Bulenje (in what is known as Kabwe rural) the establishment of towns such as Kabwe (1906), Lusaka and the Copperbelt, settler farmers "provided a market for their agricultural produce and their

fish" (Muntemba 1977a, p. 345), although the development of the area was hampered by lack of effective communications.

During the colonial period, people of Bulenje were affected by land alienation which led to the creation of "Native Reserves", especially the Lenje Reserve (Fig. 1) in the 1920s. This led to the relocation of people away from the towns and main lines of communication, and caused congestion and land shortage (Muntemba 1977, p. 359). Although in Kabwe the colonial government and the Mine Management introduced the '5 acre plot' scheme, under which people could buy or rent plots on the outskirts of the town on which they grew vegetables and raised poultry, the scheme undercut the selling power of the rural people despite being advantageous to urban workers.

Muntemba (1977a) points out that the period 1902-1920 witnessed the diffusion of technological and technical innovations which saw an increase in agricultural output. The Lenje people raised cash through agricultural sales and resisted wage labour after the imposition of hut tax in 1902. As early as 1910, Bulenje cultivators or peasants were reported as taking advantage of the market and selling milk, eggs, poultry, vegetables and grain to the growing towns.

As the people of Bulenje seized the opportunity to produce for the growing urban market, there was triggered a process of agricultural change in terms of crops, the means of production as land tenure. Whereas in the nineteenth century sorghum was the staple grain, the twentieth century saw a shift to maize which became more profitable to grow commercially. In terms of land tenure, transformations in the perception of those emerging peasant farmers towards land began to take place just as we will state later happened among the Tonga who also began to produce for the market.

After the second world war, the colonial state undertook to promote African agriculture along the line of rail including Bulenje in order that African farmers could make a greater contribution to the provision of rations for the Copperbelt miners and also arrest the deteriorating ecological situation in crowded reserves. African Improvement Farming schemes and peasant farming schemes and Cooperative Marketing were thus promoted to create what Kajoba (1988) has termed a 'small holder agrarian model'.

Under this model farming involved crop rotation and commercial cultivation of maize, cotton, groundnuts and tobacco was encouraged. The Department of Agriculture provided free financial and technical assistance to some 'improved farmers'—for stumping, water supplies, purchase of oxen, inputs etc. Bonuses were also allocated on the basis of the size of holdings. This programme was extended to farmers on traditional Trust and Reserve lands along the line of rail (Kajoba 1988, p. 94).

Thus, by 1956 there were 371 Improved Farmers in Central Province (including Bulenje) and 1,077 farmers in Southern Province, giving a total of 1,448 farmers. Of

these, 20% were classified as Grade I and these were paid higher bonuses compared to the other 22% who were classified as Grade II who were paid less (Kajoba 1988, p. 97). As a result of this general trend to award differential maize bonuses, plus government intervention in providing financial and technical assistance to selected farmers, the emerging African small holder farmers accumulated surpluses differentially, and peasant differentiation became a major spin-off effect of this policy.

In this regard Muntamba (1980) has argued that the introduction of market production among the Lenje of central province contributed not only to regional differentiation, but also created social differentiation in that a few rich and a large group of middle class peasant farmers emerged while many others remained poor (Muntamba 1980, p. 263).

Muntamba has also pointed out that increased maize production in Central Province and Kabwe Rural District is sometimes attributed to the arrival of Shona and Ndebele farmers from Zimbabwe. But since these immigrants entered the country after 1953, and by which time increase in production was already marked (the province marketed 38,000 bags in 1950 and 75,000 in 1951), Muntamba is of the view that "we need to look to changes in the means of production for a more adequate explanation" (Muntamba 1977a p. 353 and 354).

The introduction of the ox-drawn plough in the 1920s, enabled the people to cultivate large hacterages which also gave them increased yields. By 1953, there were a total of 1,777 ploughs in the district. Apart from being used by owners, there implements could be hired for a fee to other neighbouring farmers, and this became a incrative business. Peoples' attitudes to cattle also began to change, as these were now used as drought animals and were now seen as an investment.

By the late 1950s, only a few people in Bulenje had tractors, but developments before and after the attainment of political independence in 1964 such as the provision of loans to buy farm equipment seem to have altered this situation. Muntamba states that "We do not know the numbers of tractors bought and used in the district, but at the time of independence, some 95 percent of the 257 African owned tractors in the country were concentrated in the Southern and Central provinces" (Muntamba 1977a p. 354).

In addition she indicates elsewhere that Kabwe Rural District had a total of 1,253 ox-drawn ploughs in 1948. This rose to 1,406 in 1950 and stood at 3,530 in 1961 ; and by 1964 "95 percent of the cultivators used the plough cultivation" (Muntamba 1977, p. 266).

Improvements in agricultural technology in Bulenje also included the diffusion of advanced agricultural techniques involving crop rotation and use of chemical fertilizers thus replacing shifting cultivation or chitemene with permanent crop cultivation. It is argued that the Shona and Ndebele immigrants made important contributions to

this transition to improved farming since they came in the 1950s "equipped with the technological knowledge they had acquired in Southern Rhodesia", now Zimbabwe (Muntemba 1977a, p. 355).

Because of advanced technology and improved methods of cultivation, maize production in Central Province and Kabwe Rural District experience a steady increase. Whereas the district produced 5,000 bags in 1946, production reached 19,000 bags in 1948. In the province marketed production which stood at 75,000 bags in 1951, rose to 132,000 in 1953 and to 241,000 bags in 1959. By 1960 Marketed production stood at 382,000 and rose to 485,000 bags by 1961 (Muntemba 1977, p. 258).

With the attainment of political independence, rural producers in Kabwe Rural responded enthusiastically to government initiatives at promoting agricultural development. Some of the people who had reverted to subsistence in the 1930s because they had been relocated into reserves "were hopeful of their ability to participate more fully in the market and thus raise the standards of their life through the sale of produce" (Muntemba 1977, p. 312-313). They applied for loans to buy agricultural implements including inputs, cattle and ox-drawn ploughs. Apart from producing maize the major staple and cash crop, other crops included cotton, groundnuts, Irish and Sweet potatoes; plus the raising of poultry and piggery.

Due to the native reserves policy and later increased commercialization of agricultural production which required bringing more land under cultivation because of improvement in technology, there was shortage of land in Bulenje. This shortage of land "was further reflected in the enhanced value land had acquired by 1970, by which time there was a shift from territorial to local (ie, individual) land disputes" (Muntemba 1977a p. 359). She adds that "it is possible too that land has become a commodity to be rented or sold under the pretext of 'improvement' sales. While this development might well lead to increases in output, it also means that some people who have always had access to land will find themselves landless or assigned to less productive land (Muntemba 1977a, p. 359).

In this regard North *et al.* (1961) contended that powerful socio-economic forces were operative in geographical core regions of the Southern, Central and Eastern Provinces, which were affecting peoples attitudes or perceptions towards traditional land tenure, and African farmers were beginning to experience a "greater sense of personal ownership" (North *et al.* 1961, p. 211). These changing traditional attitudes were due to "the realization that land is for production as well as for subsistence, to the specialization of occupation and to the influence of European ways of life" (North *et al.* 1961, p. 211).

North *et al.* called for the introduction of freehold and leasehold land tenure, arguing that such changes should be backed up by law. While indicating that it would be extremely difficult to consolidate and register Chitemene, they were of the view that

such changes could be undertaken in the three provinces indicated above where commercial agriculture was more advanced. It was noted that in these areas “agriculture is already on the road to permanence and shifting cultivation is on the way out”; land scarcity was being experienced and “a small but growing number of people are beginning to ask for it” (*ie*, title to land)–(North *et al.* 1961, p. 212).

- (a) Fragmentation of holdings was already apparent since there were about 4-5 gardens per family. Whereas in some cases the holdings were scattered due to ecological and social factors, in other instances fragmentation was the case. But it was felt that in both instances, the effects of scattered holdings and fragmentation was the same from the practical farming point of view.
- (b) many hundreds of kilometres of farm land had already been fenced with barbed wire, especially in Mazabuka District, since people had begun to make investments in land. In some cases, grazing land had also been fenced, suggesting spontaneous individualization of land.
- (c) Land was being sold (contrary to customary law), although some people tried to disguise the sale of land as only being as sale of ‘improvements’ on land. It was disclosed that many people in Mazabuka were openly admitting to and advocating the sale of both improvements and the land itself.
- (d) People were making permanent and immovable improvements on land such as fences, boreholes and brick houses. Further-more, large sums of money were being spent on purchasing farm implements and fertilizers. A survey had shown that in the Ngwezi area of Mazabuka District alone, and area with 6,075 ha (15,000 acres) under cultivation and with 6,000 inhabitants, there were 10 tractors, 900 ploughs, numerous cultivators and some 240 Scotch carts (North *et al.* 1961, p. 213).
- (e) Sons were inheriting farms through wills from their fathers instead of inheritance taking place matrilineally (White 1960, p. 3).

In the light of the transformation that were taking place in the perceptions and practices with respect to land tenure, due to increased commercialization of maize production, North *et al.* were of the view that African farmers in the Ngwezi area and the rest of Mazabuka (and by extension in other maize producing areas of the country), be given title deeds to the land that they were cultivating so that it could be a basis for obtaining short term credit.

In other words, although the Tonga people had been shifting/subsistence cultivators before colonial rule, whose system of customary land tenure has been reviewed earlier, and was similar to that of other people including the Lenje whose mode of land usage was previously based on hoe cultivation for subsistence, they underwent a radical change resulting from increased agricultural commercialization.

Similar changes in perceptions towards the system of customary land holding have

been observed else where in Zambia. Ng'andwe (1976) found out that among the Kunda of Eastern Province, whereas previously Chitemene (with its association land tenure principles) was practiced under conditions of plentiful supplies of land, a development fever to grow cotton has taken place resulting in greater demand for land, and "any land which is left idle for over five years may be taken by anybody else" (Ng'andwe 1976, p. 61).

This trend signifies the need to use land more intensively for marketed production. Ng'andwe observed a case in which an absentee pioneer land holder, lost his land to an encumbent who had established permanent residence, and he correctly concluded that "this is revolutionary change in rules governing termination of tenure" (Ng'andwe 1976, p. 61).

It has been noted by Peters (1992) that perceptions in land rights with regards to water and pasture, have been changing in Botswana especially in the Kgatleng District where the introduction of power driven deep wells which provide water for cattle grazing, have contributed to a process of transformation in land tenure. From the 1920s to the present, it has been observed that there is increasing pressure to introduce private property in water supplies and somewhat more opaquely land.

A new grazing land policy which was introduced in the 1970s provides for leases or title deeds to owners of boreholes, and this has led to private claims on land which in theory remains 'communal'. This transformation has resulted in many disputes and court cases over competing claims to pastures and water. However, fencing has not yet taken place to divide the range and cattle holders still contend that they are free to move their herds across the open range should need arise (Peters 1992, p. 413-416).

Thus professor Myunga (1980) remarked that "land tenure systems are not static, they respond to changes in society. They are modified, redefined or restructured in response to many factors such as population growth and density, conflicts of interests or changes in the political and economic organisation of society" (Myunga 1980, p. 1).

In the same vein, Birgegard (1993) has stated with respect to natural resource tenure in Sub-Saharan Africa (SSA) that "one important characteristic of indigenous tenure systems in SSA is their dynamism. Under the pressure of population growth and commercialization of agricultural production in particular, these systems tend to change towards increase individualization of tenure. Other rules such as the traditional constraint on sales of land are gradually being bent. Taken together those and other characteristics explain the diversity and the complexity of tenure systems" (Birgegard 1993, p. 1).

It is therefore against this background of changes in land tenure over time, that this research intended to discover if there were similar changes the perceptions or attitudes and practices of the small scale farmers in Chinena Village, towards the traditional dambo and upland which they presently cultivate for marketed maize and

vegetable production. It is important to attempt to establish if perceptions are changing since most of these farmers have migrated to Chinena Village from the rest of Kabwe Rural in the Central Province, where commercial agricultural production has existed for many decades.

3 Some evidence of agricultural commercialization in Chinena village

During the field research, a total of 30 farmers were interviewed. Of these 22 or 73% were male while 8 or 27% were female. With respect to age, 14 or 47% of those interviewed were below 40 years, while those aged 41 years and above were 16 or 53% of the total.

As Hanzawa (1983) has stated, the increased tempo of activity in Chinena Villages points to the fact that a permanent mode of agricultural production for the market does exist; and farmers use improved methods of cultivation such as crop rotation in vegetable gardens and the application of both cattle manure and fertilizers in vegetable gardens, and chemical fertilizers in maize fields. He found that 92.5 percent of the 38 households he interviewed used chemical fertilizers. On average, 807.7 kg of fertilizers were used per household (Hanzawa 1993, p. 48).

We have seen that the possession of improved technology or agricultural implements has historically contributed to the advancement of agriculture in Bulenje. The same is true in Chinena village, where many farmers own modern implements as shown in Table 1.

Although 23.3% only possessed hoes, the great majority (66.7%) had at least an ox-drawn plough, while 10% had a tractor. The farmers also had other assorted implements which facilitate improved farming, and suggest a high level of capitalization in the village. The fact that 43.3% possess Scotch carts goes to suggest that many

Table 1 Ownership of farming implements among sampled farmers

Item	No	%
With a tractor	3	10.0
With ox-drawn plough	20	66.7
With ridge cultivator	12	40.0
With harrow	12	40.0
With planter	1	3.3
With Scotch-cart	13	43.3
With sprayer	3	10.0
With engine pump	3	10.0
With hoes only	7	23.3
No information	2	6.7

people in the village have the means with which to transport inputs such as manure, seeds and fertilizers, plus the produce to the main road where it can be marketed to traders from Lusaka and the Copperbelt.

Those without agricultural equipment are not completely disadvantaged since they are able to hire it from the owners. Hiring an ox-drawn plough cost about K200/yard, and one female farmer spent K12,000 for hiring equipment in the 1993/94 season. Another female farmer who settle in the village in 1993 stated that she used an arrangement where her younger boys cooperated by working in the fields of those with oxen, and in return those with oxen came to plough her maize and vegetable fields which she had also borrowed that season.

Production for the market is another important indicator of agricultural commercialization as shown in Table 2.

About 57% of all those farmers who were interviewed stated that they had produced and sold some maize in either season. Due to small sizes of their maize fields which range from 3 to 12 ha with an average of about 7 ha per person and due to the partial drought in the 1993/94 season, most farmers tended to produce and sell between 10 to 50 × 90 kg bags of maize, while reserving another 10-20 bags for consumption. Those who are relatively more successful were able to sell over 100 bags per season. However, 40% produced only between 10-20 bags for their own consumption and did not sell any maize in the 1993/94 season due to inadequate rains and fertilizers.

A notable exception was a successful commercial farmer and entrepreneur with 100 ha of maize field who harvested 2,100 bags in the 1991/92 season despite the severe drought ; 1,500 bags in 1992/93 and sold 1,400 as mealie meal since he has a grinding mill and harvested 1,200 bags in 1993/94. He intended to sell 1,100 bags while reserv-

Table 2 Maize and tomato sales in 1992/93 and 1993/94 Seasons

Quantity (90 kg bags)	No	%
0-10	2	6.7
11-50	7	23.3
51-100	3	10.0
Over 100	5	16.7
Produced maize for consumption	12	40.0
No information	1	3.3
Total	30	100.0
Sold tomatoes	22	73.3
No Information tomatoes	8	26.7
Total	30	100.0

ing 100 for his large polygamous family of four wives and 22 children.

Another enterprising young farmer Mr. MX aged 31 with a grade 10 education, cultivating two maize fields totalling 16 ha. (plus two vegetable gardens) harvested 198 bags in 1992/93; he sold 178 bags at different prices. He stored his maize in the kitchen and sold it during the rainy season when there is scarcity of food in order to fetch better prices. He ground 6 bags into mealie meal and sold it at K8,000 per bag fetching K48,000. Then he sold 100 bags of maize at K6,500 per bag and obtained K650,000. He further exchanged 20 bags of maize for 20 bags of fertilizer with a farmer within the village – 10×50 kg of D compound and 10×50 kg of Ammonium Nitrate. He estimated that he would harvest only 60 bags in 1993/94 due to late planting and the partial drought. He thus obtained K698,000 gross from maize in the 1992/93 season.

This same farmer also cultivated water melons, harvesting 5 Scotch carts equivalent to 50×90 kg bags in 1992/93 season. He sold 3 Scotch cart loads at K12,000 each, obtaining K36,000; the other 2 loads were sold at K6,000 each-making K12,000. This gave him a gross of K48,000. In the following season, he harvested 4 Scotch cart loads of the water melons equivalent to 32×90 kg bags and another 4 bags were picked from the garden. Thus a total of 36×90 kg bags were harvested that season. He sold 2 loads at K32,000 each and another 2 loads at K23,000 each-making a total of K48,000 gross.

In addition, he harvested about 83 boxes of tomatoes in the 1992/93 season which he sold at K250 per box, realising K20,750 gross. An additional 51 bags of rape were harvested which he sold at different prices. About K53,100 gross was realised after selling 14 bags at K800 per bag; 25 bags at K1,500 each and 12 bags at K500 each. The fluctuating prices were due to a market glut and the crop was bought by traders from Lusaka, and Ndola, and one was a local entrepreneur. In the 1993/94 season, he raised K84,900 gross from selling 51 bags of rape at different prices. Of these, 14 bags were sold at K1,300 each; 23 bags at K1,500 each and the remaining 14 bags at K2,300 per bag. Again the buyers included a local trader and these from Lusaka.

This young farmer acknowledged that it was more profitable to grow vegetables in Chinena village than to grow maize because expenditure on production was much higher for maize than for vegetables, and also because a farmer had only one maize harvest, while several cuts of vegetables can be done per season.

4 Land scarcity and disputes over land

Due to increased commercialization of agricultural production in Chinena village, many settlers have been attracted to come and try their luck at vegetable production. As a result of this, land in the village has become a scarce commodity. When farmers

Table 3 No. of Fields and gardens cultivated

Response	No	%
(a) One maize field and a garden	16	53.3
(b) One maize field and two gardens	2	6.7
(c) One maize field only	3	10.0
(d) Two maize fields and a garden	2	6.7
(e) Two maize fields and two gardens	1	3.3
(f) No maize field and on garden	6	20.0
Total	30	100.0

were asked to state how many fields they cultivated, the following picture emerged.

It was found that 20 per cent of those interviewed were without fields or land, and were technically landless, but are able to survive by borrowing fields from those who have land to spare. No payment or rent in cash or kind is demanded by those who lend out their land. Thus, although no rent in land has emerged, it was interesting to learn that one influential member of the village has a tendency to demand tribute labour from the farmers. This person has summoned in his gardens especially in February and April. This free labour is also mobilised during ploughing time. However, it was indicated that the younger brother to the influential man in question was against the idea of instituting tribute labour.

Those without a field or a garden of their own tend to be women who are monogamously married. They jointly cultivate fields and gardens with their husbands, who tend to think that there is no reason why wives should have separate gardens. This could be due to the fact that women are required to provide the necessary labour in the households. One woman who is in a polygamous marriage indicated however, that she had her own maize field and vegetable garden, since her husband was expected to provide a field for each of his two wives. Where a man had more than two wives, the wives and their grown up children are given separate portions of the large family field and garden which belong to the man. In a sense, these separate portions could become a basis for subdivision of the large fields in future as land is scarce in the village.

To find out more about peoples' perceptions on the issue of land scarcity those who were interviewed were asked the question: Do you have enough land to cultivate and is there enough land in the village? The responses were as follows:

It is quite clear that the majority of the respondents (70%) perceive that they do not have enough land to cultivate and that there is not enough land in the village especially for their children. However, the more successful farmers tend to have relatively larger holdings compared to those of the average small scale farmer. For

Table 4 Land availability

Responses	No	%
Yes	8	26.7
No	21	70.0
Not Sure	1	3.3
Total	30	100.0

instance, the successful commercial farmer and entrepreneur referred to earlier cultivated about 100 ha. for maize and 3 ha for the vegetable garden.

It was also interesting to note that those closest to the seat of traditional authority in the village did not seem to be aware of any land scarcity in the village (probably because they do have sufficient land themselves), except for one man who commented that their late father had left sufficient land for their use but the headman had allowed too many outsiders to come and settle in the village and thus take up all the family land.

Because of insufficient land in the village, there are at least three cases in which it is alleged that the village headman and other people grabbed land from individuals. One such farmer of Zimbabwean origin claimed that the maize field which he had cultivated since 1988 was grabbed in 1994, without justifiable cause and was subsequently given to the relatives of the headman's first wife. At first, the headman had erected some structures on the victim's land without the latter's consent, which he demolished. This action infuriated the headman. The victim stated that he complained in writing to senior chief Mukuni through the headman, but the letter was not forwarded to the chief.

In addition, a vegetable garden which the victim had cultivated since 1985 was also grabbed by the same person in 1994, and was subsequently given to the vice-headman then. The complainant felt that the headman had a grudge against him as he had not given any apparent reason for his actions.

When the complainant was asked if he wished to take this land dispute to the senior chief, he answered in a rather resigned way that according to African custom, one must Surrender". He added that there were veiled threats of serious consequences if any thing happened to the headman. Thus, the victim's relatives and friends have advised him to forget everything and let live and cultivate the portion which his late father had left when he died in 1987.

This case was cross-checked when a married woman in another section of the village was interviewed. She stated that initially, her and the husband cultivated two maize fields, one field was taken away by the headman and given to a Zimbabwean settler (referred to above)-but later this same field was grabbed and was reallocated

to a new settler and brother in law to the first wife of the headman. This situation where one field had to change hands three times would seem to emphasise the issue of land scarcity in the village, where one elderly woman who has been borrowing fields since 1989, was now planning to out migrate to Mwachisompola where her only son resides in search land.

This divorced elderly women in her 60s, complained about food insecurity due to lack of land and family labour. Although she had cultivated a dambo garden, the crop failed because she did not have chemicals for spraying and also because she did not have a young man to help her spray the vegetables. Her brother's sons were unwilling to help.

The woman stated that although new settlers keep coming into the village, the headman gives them only a site for building a house, but not where to farm; others were being given land after those with larger fields had made some subdivisions. She was of the view that only the lucky ones were allocated land for a house and for farming.

She further added that when she came into the village in 1989, a male relative gave her a piece of land to cultivate, but this was grabbed away by people she accused of being jealousy of her. Her own younger brother, the village chairman, could not give her land because he had already subdivided his field and had given portions to two of his nephews, the sons of his deceased brother.

She stated that she would have loved to stay in the village if she had land, and she was forced to contemplate out migration because of hunger. Presently, she was surviving by supplementing the little grain that she harvested around her hut and the three bags given to her by the brother, by ingeniously making 'pan cakes' and sweet fruit porridge from a wild fruit called Mumpundu (*Parinari curatellifolia*) Planch. ex Benth. (Family: Chrysobalanaceae). She pounds and then sun dries the fruits for preservation.

Apart from these individual land disputes which suggest land scarcity in the village, there is also a territorial land boundary dispute between headman Chinena and headmand Chikankata. According to the village committee minutes of October 6, 1992, Senior Chief Mukuni was invited to come to Chinena village to settle the boundary dispute. A total of seven headmen were in attendance.

According to the minutes, headman Chinena had written a letter to his counterpart, headman Chikankata, stating that one of the latter's subjects Eliko Kunda should stop cultivating his present field because it fell in Chinena's land and not Chikankata's. On the other hand Chikankata made a counter claim that one of Chinena's subjects, Dominic Katungu, was clearing land for a field in the former's area. The two headmen had previously been invited to a meeting at the senior chief's palace to settle the dispute, but apparently headman Chinena was not satisfied-hence, the October

meeting.

It would appear that the boundary dispute dates to 1986 when the Senior chief came and indicated that the boundary between the two villages were the hills to the north of Chinena village. However, Chikankata was reportedly not impressed by this decision. Thus in 1987 the senior chief was invited again by headman Chikankata. This time a committee of headmen drew another boundary in the absence of headman Chinena who was represented by his deceased deputy.

During the October 1992 meeting, headman Chinena recalled that the dispute seems to have started when Chikankata (not headman then) bought a caterpillar stamped field from Isaac Longa who had in turn bought it from headman Wilson Kanyumbu in 1974. This field encroached on the land which the original founder of Chinena village, was given by headman Kambowe Nyembaula who had first settled in the vicinity. Thus Chinena summons Isaac Longa to the court of law in Kabwe and had won the dispute.

But when Chikankata became the headman in 1985, the dispute was resurrected. Upon being called to settle the dispute in 1986, the senior chief advised that the hill sides should be the boundary in the north, while the Forest Reserve was the boundary to the East.

Having listened to both sides, the senior chief is reported to have suggested as a compromise that all those farmers or villagers who had fields in Chinena territory but had houses in Chikankata could register as members of Chinena village. On the other hand, all those who had fields in Chikankata but had houses in Chinena were to register in Chikankata. It would appear that this new compromise proposal was not acceptable, as the village committee minutes of October 7, 1992 indicated that on the second day of the meeting, it was restated that the hills should be the boundary between the two villages, as ruled in 1986.

This on going land boundary dispute which concerns farmers from the two villages clearing or cultivating land in 'border' areas seems to suggest that land in this area is a scarce commodity which is being disputed. Land hunger seems to have forced villagers to encroach on land that belongs to another headman's territory. This state of affairs seems to have prompted the senior chief to suggest (as per the minutes of October 7, 1992) that the headmen should begin to limit the populations in their respective villages and that each headman should obtain group Title for the land under his jurisdiction.

The senior chief was also reported to have suggested that "each village member was free to ask for a title deeds as long as he is honest (humble)" (Village Committee Minutes, October 7, 1992).

5 Tendencies towards individualization of tenure

Because the farmers in Chinena village are cultivating their land more intensively, they attach great importance to it especially in view of the perceived scarcity of land. They are also engaged in land improvement. Apart from the application of cattle manure and fertilizers to improve the fertility of land, there is also a spontaneous tendency to fence their vegetable gardens. Although this process aims at protecting vegetables from cattle who graze on open range in the dambo and in maize fields, it also suggests a tendency towards a de facto individualization of village land, especially dambo gardens.

When farmers were asked to state whether they had fenced their gardens, the following picture emerges :

Table 5 Fenced and unfenced gardens

Responses	With Barbed Wire No	%	With Shrubs No	%	Total	%
Fenced	14	46.7	6	20.0	20	66.7
Not Fenced	—	—	—	—	4	13.3
No Garden	—	—	—	—	6	20.0
Total					30	100.0

The data in Table 5 show that by September 1994, a total of 20 or 67% of those interviewed had fenced their gardens. This is out of a total of 28 farmers in the entire village who had fenced their gardens with barbed wire. It is interesting to note that this process is fairly recent. Whereas it was learned that only two farmers had decided to fence their gardens with barbed wire in 1992 (partly to prevent cattle from eating the vegetables and also to ensure definite boundaries between adjoining gardens), the number increased to 28 by 1994. If those using shrubs are also added, who numbered eighteen, then a total of 46 farmers had fenced their gardens. Of these, four were women; one had fenced with barbed wire while three had done so with shrubs.

When the farmers were further asked if they would like to obtain title deeds to the land they cultivate, the responses were affirmative for the majority. A total of 25 farmers said Yes, representing 83 percent of all those interviewed. Only two farmers said No, representing only 7 percent of the total. The other three or 10 per cent of the sample were rather unsure or it was not applicable to them.

Different reasons were given for desiring title deeds. For many, it means greater security in the land which they were improving and cultivating intensively. The experiences of those whose land had been grabbed from them were cited as good

reasons why individuals should have title to land to prevent such actions. Others were of the view that title deeds would be a sure sign that they would hold on to their land permanently and secure a future for their children. A minority opinion was that title deeds would ensure that they are free from anybody's interference, including that from the village headman.

It was feared, however, by many farmers and especially those close to the village committee that it might prove difficult for individuals to obtain title to their land because such a development could undermine the authority of the village headman who is empowered to allocate village land. It was indicated further that since the village is also populated by non Lenje speaking settlers, the headman might be reluctant to sanction the granting of title to land due to the fear that land would be permanently held by foreigners rather than his relatives.

As a matter of fact the village headman did concur with these sentiments. He was of the view that although the senior chief had intimated that individuals could apply for such title after obtaining the go ahead from headmen, most headmen in the area were reluctant to give consent due to the fear that those who will be granted title will no longer respect and accept the authority of headmen. He added that local people are not properly educated about the meaning of title deeds to the land, suggesting that there was need to properly educate the farmers in order to overcome the fears by those in authority. In other words, it would seem as if it was being suggested that a public relations exercise was necessary to prepare the ground so that the long term effects of granting title deeds do not create a situation where traditional authority is undermined.

When the sampled farmers were asked to indicate whether they would contemplate selling their improvements together with the land itself if they had title to the land, 15 or 50% said they would sell 10 or 33% were of the view that traditional land should not be sold; 2 or 7% were unsure; and the question was not applicable to 3 farmers representing 10%.

Those who contemplated selling land were of the view that it would be fair for them to do so if they had to leave the village because they have invested in it. One married woman said that if she had her own fields and had title but was divorced, she would sell her fields to recoup her investments. But without title, she would only remove the barbed wire fencing and leave the village land, after selling the crop and sharing the money with her ex-husband.

With respect to inheritance and the writing of wills to ensure that their heirs succeeded the estate, the male farmers were unanimously of the view that their property should go to their children, and especially sons. It was emphasised that as long as the children inherited the property, their widows would automatically be cared for by their sons. Men were opposed to their daughters inheriting the estate because

it was feared that such heirs would fall under the control of their husbands.

It was also unanimously agreed that writing of wills was a very desirable thing in order to ensure that their property did not go to the relatives who did not contribute to the building of the estate. While farmers, were of the view that their relatives would respect such wills, and that the heirs should get protection from the government, a few were rather resigned about the reactions of surviving relatives. One male farmer said that if relatives interfere, there is really nothing I can do as "a deadman has no voice."

6 Conclusion

The paper has attempted to show that the Lenje people like their sister people, the Tonga, experienced radical transformations in agricultural techniques and production, despite the fact that they were subsistence/Chitemene cultivators in the pre-colonial period. The imposition of colonial rule in Northern Rhodesia (now Zambia) and the subsequent establishment of urban centres especially along the line of rail and the Eastern province, saw the birth of commercial production by Africans, as these urban centres provided markets for a variety of crops among which were maize, cotton, tobacco, groundnuts and vegetables.

The establishment of European settler market production further stimulated African efforts as the indigenous people in the Southern, Central and Eastern Provinces copied modern methods of cultivation including the adoption of advanced technology such as ox-drawn ploughs and later tractors. The new means of production facilitated increased production especially after the second world war when the colonial government deliberately promoted a small holder agrarian model through the African Improvement and Peasant Farming Schemes.

Because of these changes, Africans began to invest more in the land which they cultivated and realised greater yields especially of maize. Improved market production was accompanied by gradual changes in the perceptions of attitudes of the people including those of Bulenje in the Central Province, with respect to how traditional land should be held. These changes were more pronounced among the Tonga of Mazabuka. Some individuals began to advocate for the individualization of agricultural land tenure, so that they could enjoy greater security of tenure as commercial producers.

The paper has also shown that the attainment of political independence saw further agricultural commercialization in the major maize producing areas including Bulenje.

It is also shown in the paper that given this historical background of increasing agricultural commercialization in the Central Province, there is enough evidence to contend that significant agricultural commercialization does exist in the study area.

This increased market production in Chinena Village has attracted many settlers from the Province and beyond and has led to land shortage.

The field data also clearly demonstrates that because of increasing market production, especially that of vegetables and maize, the small scale farmers in Chinena village attach greater value to their traditional land. Despite the fact that the village is located in a Trustland, the people are investing in making improvements in the maize fields and vegetable gardens which they cultivate, by applying fertilizers and cattle manure to maintain the fertility of dambo land. Others have spontaneously embarked on fencing their vegetable gardens with barbed wire and brushes. Coupled with the desire by the farmers to obtain title deeds to their land if they were given the opportunity, and the desire to sell land and improvements, plus the wish to write wills so that their estates can be inherited by their children (especially sons), it can be concluded that in Chinena village, people's perceptions towards agricultural land tenure are changing towards individualization of tenure and further commercialization.

These findings concerning changes in attitudes in Chinena Village are in agreement with earlier studies referred to in the literature review which suggest that indigenous forms of land tenure in Zambia and elsewhere are dynamic and are able to evolve over time, and especially due to commercialization of agricultural production.

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