

MIGRATION, POPULATION GROWTH AND ETHNIC DIVERSITY OF A VILLAGE IN CENTRAL ZAMBIA

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Introduction

This paper attempts an analysis of migration, population growth and ethnic diversity on the micro level by taking a village in central Zambia as a case study. The village of the study has interesting characteristics in terms of farming, population changes and ethnic composition. The analysis will contribute to understanding dynamics of migration and ethnic relations in changing socio-economic environments in Zambia. Mobility has played a critical role in the adaptation of people in sub-Saharan Africa to their changing environment (OECD, Club de Sahel, 1995:8). Migration and population change have significant impacts on rural economy and society as well as on environment. However, population changes are usually analyzed at Provincial and District levels and there are not many studies at the village level.

Socio-economic environments surrounding population distribution and migration in sub-Saharan Africa have changed drastically since the mid-1970s. The decade of 1980s has brought dramatic shifts in the distribution of income in sub-Saharan Africa, particularly between town and countryside. Sub-Saharan Africa is no longer characterized by wide income differentials between town and countryside or between urban worker and rural peasant. However, several studies have demonstrated that in many African countries migration from rural to urban areas has not abated, notwithstanding the fall in real wages of urban workers (Weeks 1995). The paper seeks to have better insights into the impacts of the shifts in rural-urban income differentials through the study of a village in Zambia.

While massive rural-urban migration in developing countries has attracted scholars' and policy planners' attention, there has also been substantial movement of people within rural areas. One factor that affects migration of rural people in sub-Saharan Africa has been changes of natural environments such as climatic changes and degradation of lands. Shortages of rainfall are one of such ecological factors causing people to move. From the early 1980s southern Africa region suffered recurrent hits of drought. Our study of a village will show how drought affected migration in rural areas.

Another factor influencing rural migration is market opportunities for farm products (OECD, Club de Sahel, 1995:8). As farming has become part of the market economy, market opportunities for farm products have had a great impact on rural settlement patterns. The development of the food market linked farmers to the market economy. The nearer a farmer lives to a town, the greater his or her incentive to produce. In countries such as Zambia where crops for domestic market including food crops (especially maize), rather than cash crops for export, dominate marketed production, access and low transport costs to urban

markets influence profitability of commercial farming. This is of an increased importance under the current liberalization of agricultural marketing. A case of the village we studied will indicate the influence of its favorable geographical position on the population growth of the village..

Increased mobility of people and changing patterns of migration in sub-Saharan Africa have had significant implications for settlement patterns of different ethnic groups. While a multiethnic society has emerged in urban areas where people of different ethnic origins migrated to, most rural communities in sub-Saharan Africa are envisaged to remain composed of a single ethnic group. However, migration of people might have also changed ethnic composition of rural communities. The village we studied will show an instance of a rural community with a diverse ethnic composition.

Rural-Urban Income Gap and Migration in Zambia

While the first decade after independence in 1964 was characterized by widening income differentials between town and countryside of Zambia, the last decade has seen the narrowing gap between them. Barter terms of trade of the small farmers deteriorated 30 percent during the first decade of the independence, while real wages of African formal sector workers increased more than 60 percent between 1964 and 1970 (Dodge 1977: 60, 133-5).

Drastic falls in living standards have occurred since the mid-1970s as a result of the decline in copper earnings. In the 1980s economic crisis and the World Bank/IMF--sponsored structural adjustment programs hit urban population very hard. Average earnings in the formal sector fell by about 70 percent between 1975 and 1990. The fall in real wages was accompanied by a reduction in formal employment of some 32,000 workers between 1975 and 1987 while the labor force increased by 50 percent (Loxley 1995: 137, 147). On the other hand, structural adjustment policies since 1985 have had the effect of doubling of income terms of trade of the farmers. Agriculture's barter terms of trade improved by 25 percent between 1983 and 1987 while farmers' income terms of trade doubled (Loxley, 1995:149-150).¹ Compared to this, the average urban wage was decimated and hence rural-urban differentials narrowed considerably.

During the first decade after independence when the rural-urban income gap widened, urban population increased rapidly due to migration from rural areas. Urban population increased at an annual rate of 8.9 percent and 6.0 percent for the periods 1963-69 and 1969-80 respectively (Zambia, CSO 1985: 13). The capital city of Lusaka's population increased 13.4 percent annually during the period between 1963 and 1969, and 9.9 percent between 1969 and 1974. The post-1974 recession has had a dramatic impact on the growth of copper-dependent cities as well as on the government-dependent capital. The average growth rate of towns was virtually halved in the late 1970s in comparison with earlier periods (Becker and Morrison 1995). An annual growth rate of urban population declined from 6 percent for the period of 1969 and 1980 to 3.7 percent for 1980 and 1990, while that of the rural population increased from 1.6 percent to 2.8 percent for the same periods (Zambia CSO 1990: 7).

¹ During the period between 1987 and 1990 when Zambian government was at odds with IMF and the World Bank on structural adjustment policies, producer prices did not keep pace with inflation and barter terms of trade halved.

While rural-urban migration slowed down in the 1980s, there were increasing cases of return migration from urban to rural areas and rural-rural migration. Many of rural-urban migrants in African cities are alleged to maintain socio-economic ties with their rural home villages and they return to their home villages when they go back to rural areas. However, some recent studies in northern Zambia have shown that the real picture is not straightforward and that returning migrants do not return to a specific village. Pottier's study on Mambwe has shown that circulatory rural-urban migration has come to an end among the Mambwe by the 1980s and has been replaced by rural-rural migration (Pottier 1988). Pottier has also suggested that the Mambwe, whose men had a fixed allegiance to their natal villages at the time of Watson's study in the 1950s, no longer hold fixed allegiances to specific villages, and that they return to a general location, making their final residence choice according to a number of considerations, including affinity and links of friendship. Moore and Vaughan's study on Bemba has shown that the notion of home area of returning migrants can be very broadly defined and that most migrants return to a home area rather than a specific village. For some home area means anywhere within a particular chief's area, while for others it can mean anywhere within the district (Moore and Vaughan 1994:173). Our study will also suggest that residential choices of migrants are very fluid and there are many cases of rural-rural migration in Zambia.

Rainfall and Agricultural Production

Marketed production of maize as well as its producer prices have been the most important factors that affect Zambian farmers' income terms of trade because maize is the most important cash crop for the majority of farmers in Zambia. While the marketed production of maize has been affected by the level of producer prices, it has also been influenced by climatic changes such as shortages of rainfall. This has been especially the case in the southern half of the country where annual rainfall is lower than in the northern part of the country. For example in Southern Province marketed production of maize fluctuated drastically from year to year depending on the weather. Sakaida's study shows that in Southern Province there is a clear positive correlation between rainfall and marketed production of maize for the years between 1973 and 1988 with the correlation coefficient 0.712 (Sakaida 1993).

The extent of the effects of rainfall on maize production (hence cash income) has been great enough to make some farmers migrate from one area to another. Some peasants in drought-prone areas tended to migrate to towns and commercial farms in search of wage work in the early 1980s (Chipungu 1988 :218). There has been a north-bound migration of the Tonga people from Southern Province to Central Province. The Tonga migration to the north was caused by a combination of several factors such as shortages of land in Southern Province. One of the factors causing the migration is that they moved to areas such as Central Province that are less likely to be affected by shortages of rainfall than Southern Province.

A combination of upland maize farming and vegetable production in *dambo*² in Chinena

² Dambo is a vernacular word of Cicewa which is rather widely used to mean various kinds of land, but usually indicates low and wet lands, the bottom of which is very shallow.

village makes farming in the area less vulnerable to shortages of rainfall. Under the condition of persistent drought in the last decade, farming in dambo has become a factor attracting migrants from other areas where there are no dambos. Accordingly, even in Central Province profitable and drought resistant dambo farming in Chinena has attracted farmers in other areas of the Province.

Kabwe Rural District

Chinena village, the village we studied, is in Chibombo District in Central Province. Chibombo District is equivalent to the southern half of the former Kabwe Rural District.³ There are four Chiefs in Chibombo District: Senior Chief Mukui (Chief Liteta), and Chiefs Chamuka, Chitanda and Mungule. Chiefs Chipepo, Ngawe and Mukuwe are in Kapiri Mposhi District. There are 18 Wards in the District. The Chinena village is in Chibombo Ward and falls under Chief Liteta, a Lenje chief.

There are three main ecosystems in the Kabwe Rural District (Muntemba 1977a: 13-17). Ecosystem 1 comprises the Lukanga Swamps. Ecosystem 2 covers the greater part of the district and is identified by ironstone and light sandveldt soils with corresponding *Miombo* Woodland. The soil's productivity is low, and the soils are poor for maize growing. The crops hold better in dambos that are found in some parts of the district, but cultivation is impossible when the rains are heavy. Ecosystem 3 extends over the south-central portion of Kabwe Rural District. The soils have higher productivity than those of Ecosystem 2.

During the colonial period land use and settlement patterns of African people in Kabwe Rural District were affected by European settlement. To make way for an influx of European settlers, land was alienated and native reserves designated in 1928-9 along the line of rail. From 1930, people were ordered to move out of Crown Lands (Muntemba, 1977a: 237-240). By 1932, movement into the reserves was complete. All of Chief Liteta's people, a large proportion of Chief Chipepo's and Mungule's were moved. Some of Liteta's people went to live along the Keembe stream, or by the edges of the Swamps, where soils were of low productivity. Chief Chipepo's were directed towards the Swamps.

The upward population trends since the 1930s in the Kabwe Rural District (then Broken Hill District) were due to high birth rates. But migrants from other parts of the country and from outside Northern Rhodesia, notably Southern Rhodesia, Malawi and Tanzania contributed to the population growth (Muntemba, 1977a: 34). Of the latter, immigrants from Southern Rhodesia, represented by the Shona and Ndebele, formed the largest groups. Whereas Shona and Ndebele movement out of Southern Rhodesia dates back to the 1940s, migrations in greater numbers occurred from the 1950s. The choice of Kabwe Rural District by immigrants was influenced by the District's geographical position, situated as it is closer to the urban centers and markets. In 1969, there were 6,137 Southern Rhodesians, 932 Malawians and 311 Tanzanians in the District (R. J. Matsau cited in Muntemba 1977a: 41). The population growth notwithstanding, the numbers of those who moved out of the District, particularly from the poorer parts, into the urban centers were also high, causing

³ Although Kabwe Rural District was divided into two new districts, namely Chibombo and Kapiri Mposhi, in 1992, I use the old name and boundary of Kabwe Rural District for the sake of convenience in this paper.

problems of labor supplies for local production (Muntemba, 1977a: 35).

African people in Kabwe Rural District responded to economic change of colonial period and seized the opportunity to produce for the growing urban market. Following the 1936 Maize Control Act African producers in the District increased the maize production for the market. After World War II colonial government introduced the 'Peasant' and 'Improved' Farmers' Schemes to give some African farmers in Southern and Central Provinces technical information, loans, bonuses and improved marketing facilities. There was also an upward trend in crops such as cotton and legumes in the 1960s. Cotton was introduced as a cash crop to the Central Province after 1961 (Muntemba 1977b, 1978). By independence in 1964, cash production among African cultivators was more developed and widespread in Southern and Central Provinces than in other provinces.

Rural areas of Central Province including Kabwe Rural District have recorded marked increase in population growth rate in the 1980s. Population of Kabwe Rural District increased from 122,570 in 1969 to 146,295 in 1980 and 219,339 in 1990. Average annual population growth rate of the district increased from 1.6 percent during the inter-censal period of 1969-1980 to 4.1 percent during 1980-1990 (Zambia CSO, 1994a:24). While all districts of Central Province with the exception of Kabwe Urban District⁴ recorded increases in annual growth rate during the two inter-censal periods, increases in Kabwe Rural District was most significant. A report of the 1990 population census has suggested that "this rural district with rich soils may have been a focal point of in-migration." (Zambia CSO, 1994a:25)

Many of the villages in the district are a mixture of 'local' farmers and farmers who are immigrants to the district. These immigrants were attracted to the area by the combination of a relative abundance of land, a more reliable pattern of rainfall than their previous place of farming, and a quite well developed transport and marketing infrastructure (see Sutherland 1984:5 for the case of Chamuka block of the Kabwe Rural District).

One of the factors behind the accelerating population growth in rural districts of Central Province was relatively lower population densities (hence the greater availability of land) of the Province which have attracted in-migrants from other areas of Zambia. Whereas rural districts of Central Province have good lands for agriculture, their population densities were still lower than that of districts in Southern and Eastern Provinces. While population densities of Chadiza, Chipata and Katete districts in Eastern Province and Monze, Choma, and Mazabuka districts in Southern Province were more than 20 persons per square kilometer in 1990, that of Kabwe Rural District, which was the highest in the rural districts of Central Province, was 8.5 persons per square kilometer (Zambia CSO 1994b:3-4).

Data Collection

A team of Japanese and Zambian researchers conducted field surveys in Chinena village in August 1992, August 1993 and September 1994 to analyze land use and environmental

⁴ Trends in population growth of the Kabwe Urban District were in marked contrast with those of other districts in Central Province. While population growth rates increased in the 1980s in other districts, that of Kabwe Urban District declined.

changes of dambos.⁵ As a member of the team I carried out interviews of the household heads and/or wives using a questionnaire with the aid of a research assistant who is a member of the village. Information on such items as year of birth, place of birth, place of last residence was collected for all members of the households interviewed. In August 1992, 82 households of the village were interviewed while the total number of households at the time was estimated to be 90. In August 1993, 100 households out of an estimated total of 108 households were interviewed. Forty-one households were interviewed in September 1994. Through the three surveys a total of 120 households was interviewed.

Chinena Village

The village Chinena is located about five kilometers eastward from the tarmac road connecting Lusaka and Kabwe. By the tarmac road, there is a small market of agricultural produce where some villagers and traders sell tomatoes, watermelons and other vegetables harvested in nearby villages including the Chinena village. The market itself is known to many drivers of commercial vehicles by the name of Chinena. The market has a favorable geographical position in terms of access to urban markets as it is located between the two largest urban centers, Lusaka and the Copperbelt towns, as well as it is very close to Kabwe town. It is about 90 kilometers from Lusaka, 40 kilometers from Kabwe town and 260 kilometers from the Copperbelt towns.

Luwamabwe River runs the eastern side of the village and the National Forest Reserve is in the east of the village. North of the village is a Tonga village, while there are some Lenje and Tonga villages in the south. North-west of the village lie large farms that were occupied by European settlers in the colonial period. The altitude of the area is between 1160 and 1200 meters above sea level. The village has several dambos.⁶ In the middle of the village there are two dambos, one called Kanchoncho that means 'always wet' and another, 'Headman's dambo'. In the east along the Luwamabwe River there is Luwamabwe dambo and in the south there is Lubulanski dambo.

The Chinena village is divided into eight sections of Section A to Section G. The number of households of each section varies. While sections A and B were composed of more than 20 households each, sections E, F, G each comprised less than 10 households.

There were 13 female-headed households out of 120 households interviewed in three surveys.⁷ Seventeen male heads out of 107 male heads had more than one wife at the time of the 1994 survey.⁸ There were many cases of polygamy (polygyny) among the Shona and the Tonga. Out of the 17 polygamous household heads, seven were the Shona and 5 were the Tonga (including one Ila and one mixture of Shona and Bemba). Some polygamist farmers were wealthiest farmers in the village. Two wealthiest farmers, both the Shona, had four

⁵ For the findings of the research project, see Shimada 1993 and 1995.

⁶ Dambo is called *cinyika* (plural *shinyika*) in Cilenje.

⁷ Out of the 13 female heads, one died in 1992 after the survey of 1992, while another one became female head after the death of her husband after the survey of 1992. One female head is the second wife of the headman, although I classified her household as independent one.

⁸ Some other male heads had more than one wife before the 1994 survey but some of their wives had either died or been divorced.

wives each, while the headman had two wives.

Agriculture of the Village

The farming of Chinena village has some new elements compared to agriculture of the majority of Zambian small farmers. Maize has been the most important cash crop as well as food crop for the majority of small farmers in Zambia. While maize is also an important crop for farmers in Chinena, one of the main farming activities in the village is vegetable production. Although cotton and sunflower have become popular cash crops for many small farmers in Central, Southern and Eastern Provinces, both of these crops are not so popular among farmers in Chinena. Whereas production of vegetables and fruits (gardening) was in many rural areas not considered part of mainstream agriculture, for many farmers in Chinena vegetables are the most important cash crops. The area around Chinena is well known for its vegetable production. Mukalashi where Chinena village is located and Chankumba are two prominent areas of vegetable production in Chibombo District. Vegetable markets where small farmers sell their tomatoes, rape and watermelons by the Kabwe-Lusaka tarmac road concentrated in the areas of 20 kilometers between Chinena market and Liteta Hospital.⁹ Hanzawa's survey of 76 households in 1993 shows the magnitude of vegetable production in the village. In the 1992/93 season 52 households marketed tomato harvests from upland and 41 households tomato from dambo. Each household on average received 177,000 kwacha¹⁰ and 153,000 kwacha respectively from the sales of tomatoes (Hanzawa 1994). These were equivalent to sales of 35 and 30 bags of maize.

Another characteristic of the farming in Chinena is the utilization of dambo. Farming in dambo gives farmers security against damages of drought. Whereas dependence of many small farmers of Zambia on rain-fed maize cultivation makes them susceptible to fluctuations of rainfall, farming in Chinena is less vulnerable to shortages of rainfall because one foundation of its farming, dambo cultivation, utilizes underground water in the dry season. Furthermore, the growing of vegetables in dambo is a dry season business that does not dislocate usual crop production. In Chibombo District, Chinena including some other villages around and Chankumba are the areas where small farmers utilize dambo extensively for commercial production, while in areas such as Keembe farmers utilize dambo for the production of vegetables like okra.

Vegetable production in the village has been expanding and prospering in recent years. Location of the village gives it an advantage to vegetable production for urban markets. It is located near the main tarmac road that connects the Lusaka and the Copperbelt. The two largest urban centers of Zambia provide large markets for vegetable produce. The distance to markets are important for vegetable production because vegetables are perishable and are marketed by private traders without transport subsidies and government guaranteed prices. Although areas such as Ipõngo and Chiyuni that are located further west of Chibombo District have good dambo lands, those are not utilized extensively for marketed production

⁹ Information from the interview with Mr. Chisamba, Assistant District Agricultural Officer of Chibombo, September 12, 1994.

¹⁰ Exchange rate of Zambian kwacha was about 550 kwacha to one US dollar in the mid-1993.

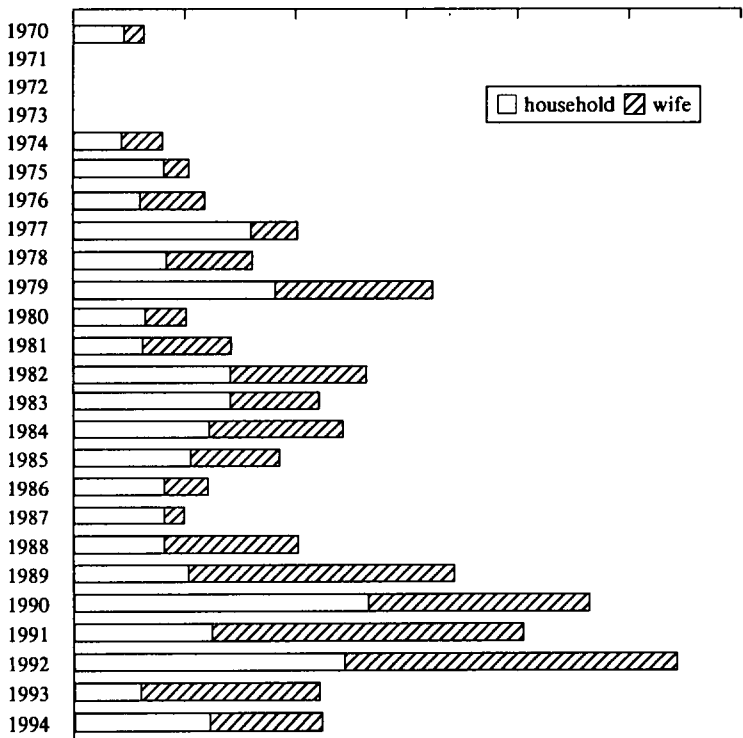
of vegetables because the development has been constrained by long distances from the main tarmac road and poor conditions of the roads to the main road.¹¹

Significance of profitable and drought resistant farming in Chinena should be understood against the background of recent economic declines and persistent drought in Zambia. As indicated earlier, rural-urban income differentials narrowed considerably during the 1980s due to drastic falls in living standards of urban dwellers and improvement in farmers' income terms of trade. Because farming in Chinena is more profitable and less risky in comparison with farming based on rain-fed maize cultivation, expected income levels of farmers in Chinena are compared much favorably with urban income levels.

Migration and the Village

Chinena village was established in the mid-1970s. The land of the village was granted from Chief Liteta to Mr. Melek Chinena, father of the present headman, Mr. John Chinena. At the beginning Melek lived by the tarmac road, while he sent a charcoal maker of Tanzanian origin (Malila or Nyika) to clear the land. The charcoal maker, who is one of the original members of the village and still lived in the village at the time of our field surveys, cleared

FIGURE 1. YEARS HAVING COME TO THE VILLAGE



¹¹ Information from the interview with Mr. Chisamba, September 12, 1994

the woodland and made charcoal from the wood he cut. Around 1977 Melek, John and some of their family members and relatives settled in the present areas of the village. Some Tonga and Lenje families also settled around the same time. Mr. C.S., a Shona man, who is one of the wealthiest farmers in the village came to the area in 1976. He first affiliated to a neighboring village, then in 1977 after the demarcation of the boundary between the two villages he became a villager of Chinena. Accordingly, villagers of Chinena were composed of different ethnic groups from the early days of the establishment of the village. Around 1980 some Shona people shifted from the Forest Reserve when government ordered them to stay out of the Reserve. The boundary between Chinena and the neighboring village in the north was demarcated before 1983.

Because the village was established recently, all the household heads and their wives were born outside of the village. Fig. 1 shows the distribution of years when household heads and their wives reported to have come to the village. Reliability of the years reported are limited because it depends on how well the respondents remembered the years they had come. Furthermore, the Figure does not reflect a whole of the history of in-migration to the village because those migrants who came to the village but have died or migrated out of the village

TABLE 1. PLACES OF BIRTH OF HOUSEHOLD HEADS AND WIVES

Province/District	Head	Wife	Total
CENTRAL	54	53	107
Kabwe Rural	40	34	74
Kabwe Urban	7	8	15
Mkushi	1	1	2
Mumbwa	5	9	14
Serenje	1	1	2
LUSAKA	15	19	34
Lusaka Urban	8	14	22
other	7	5	12
SOUTHERN	13	17	30
Monze	8	12	20
Choma	2	3	5
other	3	2	5
EASTERN	11	8	19
Chipata	6	5	11
Katete	3	1	4
other	2	2	4
COPPERBELT	5	9	14
Kitwe	2	1	3
Luanshya	1	3	4
Ndola Urban	1	3	4
Mufulira	1	2	3
NORTHERN	4	3	7
Isoka	2	2	4
other	2	1	3
WESTERN	2	0	2
Zimbabwe	14	10	24
Tanzania	1	2	3
Malawi	1	0	1
TOTAL	120	121	241

by the time of our surveys were not accounted for. However, Figure 1 does indicate a rough pattern of past in-migration to the village. The figure indicates an upward trend of in-migration after the late 1980s. Of 120 household heads and their 121 wives interviewed 45 household heads and 64 wives reported to have come to the village after 1989, while more than half (62) of the all household heads and 64 percent (77) of the wives have come after 1985. Since 1988 larger number of wives have migrated to the village in comparison with household heads. This might partly be attributable to a high incidence of some prosperous farmers to marry more wives.

As is shown in Table 1 the places of birth of the household heads and their wives are scattered all over the country except North-Western and Luapula Provinces. Furthermore, more than ten percent of them were born outside Zambia, mainly in Zimbabwe. Although a third of the household heads and more than a quarter of the wives were born within Kabwe Rural District, those born in Lusaka and Southern Provinces were also many.

Table 2 shows the distribution of the last residence where household heads and their wives lived before moving to Chinena. While the places of birth of the household heads and their wives are rather widely distributed all over the country with some from outside the country, the places of the last residence are much more concentrated with Kabwe Rural

TABLE 2. PLACES FROM WHERE TO HAVE MIGRATED TO THE VILLAGE

Province/District	Head	Wife	Total
CENTRAL	77	81	158
Kabwe Rural	57	58	115
Kabwe Urban	7	9	16
Mkushi	4	5	9
Mumbwa	8	8	16
Serenje	1	1	2
LUSAKA	23	12	35
Lusaka Urban	22	12	34
other	1	0	1
SOUTHERN	5	10	15
Monze	5	10	15
Choma	0	0	0
other	0	0	0
EASTERN	2	0	2
Chipata	1	0	1
Katete	1	0	1
other	0	0	0
COPPERBELT	9	6	15
Kitwe	4	2	6
Luanshya	3	2	5
Ndola Urban	0	0	0
Mufulira	1	1	2
Chingola	1	1	2
NORTHERN	0	3	3
Isoka	0	2	2
other	0	1	1
Zimbabwe	0	1	1
not available	4	8	12
TOTAL	120	121	241

District accounting for 47.7 percent and Lusaka (Urban District) 14.1 percent. While 100 out of the 120 household heads (83 percent) migrated from Central and Lusaka Provinces, nobody migrated directly from Northern and Western Provinces, or outside the country. The pattern indicates that there were many people who moved to somewhere in Central Province or Kabwe Rural District before migrating to Chinena. It implies that a sort of step migration is common and there are many cases of rural-rural migration.

While only 20 (17 percent) out of 120 household heads were born in urban areas, 38 (31.7 percent) of them moved from urban areas to the village.¹² This is an indication of urban-rural migration. Some of those respondents who migrated from urban areas stated that plight in towns such as increased prices of commodities and limited job opportunities caused them to go to rural areas. The picture is different for wives. While 31 of them were born in urban areas, only 27 migrated from urban areas to Chinena.

Population Increase between 1992 and 1993

An estimated number of the households in the village increased from 90 to 108 between August 1992 and August 1993. During the one year 13 households migrated into the village and 8 households were established as sons became independent from their fathers, while 3 households migrated out of the village or dispersed after the death of the household heads.

We estimated an annual population growth rate of the village between 1992 and 1993. Those households interviewed both in 1992 and 1993 amounted to 77, while 8 households in 1992 and another 8 households in 1993 were not interviewed respectively. As is observed in Table 3, population of the households interviewed both in 1992 and 1993 increased from 590 in August 1992 to 621 in August next year at an annual growth rate of 5.3 percent. If we assume that those households interviewed either in 1992 only or 1993 only also increased at the same rate of 5.3 percent per year, the population of these households (columns II and III in table 3) is estimated to have grown from 78 or 79 to 82 or 83 during the one year. The population of those households that migrated into the village between August 1992 and August 1993 (column IV of table 3) stood at 70 in August 1993. Accordingly, it can be estimated

TABLE 3. POPULATION GROWTH IN CHINENA VILLAGE

	Population in 1992	population in 1993	social increase	natural increase	other increase
I	590	621	+15	+14	+2
II	32	(33 or 34)	+1	0 or +1	
III	(46 or 47)	49	+1 or +2	+1	
IV	0	70	+67	+3	
total	668/9	773/4	+84/5	+18/9	+2

* I = households interviewed both in 1992 and 1993; II = households interviewed in 1992 but not in 1993; III = households interviewed in 1993 but not in 1993; IV = households that came in the village after August 1992.

** Figures in parentheses are estimates.

*** Other increase is increase not identified whether social or natural.

¹² Urban areas here are defined as Lusaka Urban and Kabwe Urban Districts and Copperbelt towns.

that the total population of the village increased from 668 or 669 in August 1992 to 773 or 774 in August 1993. Annual growth rate of the village population is thus estimated to have been as high as 15 to 16 percent. This rate is much higher than the average annual growth rate for Kabwe Rural District in the 1980s, that is 4.1 percent.

Social increase (net in-migration) accounted for large part of the population increase between 1992 and 1993. Whereas the rate of natural increase was around 2.8 percent a year, that of social increase was as high as 12.6 percent.

Ethnic Composition of the Village

Chinena village is inhabited by a variety of ethnic groups including Zimbabwean immigrants. None of the districts in Central Province is homogenous with respect to the ethnic composition of the population or the predominant language spoken. According to the 1990 Census, over 22 languages are represented in Central Province, with Bemba being the most spoken language followed by Lala, Lenje and Tonga (Zambia CSO 1994a:34-35).¹³ There are a number of non-Lenje in the Kabwe Rural District although the district falls under the Lenje chiefs. Muntemba in her study of economic change in the district has specified non-Lenje in the area to include Tonga, Kaonde, Ila, Mbwera, Shona, Ndebele and some people from Tanzania (Muntemba 1977b: 361). One of the findings of the 1990 Census (Zambia CSO 1994a:35) shows that in terms of the predominant language of communication Kabwe Rural District is quite heterogenous with Lenje being mostly spoken (35.9 percent) followed by Tonga (15.5 percent) and Bemba (13.9 percent). Chinena village shares the common feature of ethnic heterogeneity of the population in Kabwe Rural District.

Fig. 2 shows the ethnic composition of household heads and their wives. We asked household heads and wives about their father's and mother's ethnic groups. If a respondent's father's ethnic group and mother's ethnic group are different, we count each as 0.5 point. We categorized some ethnic groups into a group and this is also shown in the Fig. 2. For instance the Ila and the Tonga speak very similar languages. Together with the Lenje the three ethnic groups are related to each other (Momba 1989: 349). So we classified them into the Tonga, Ila Group¹⁴

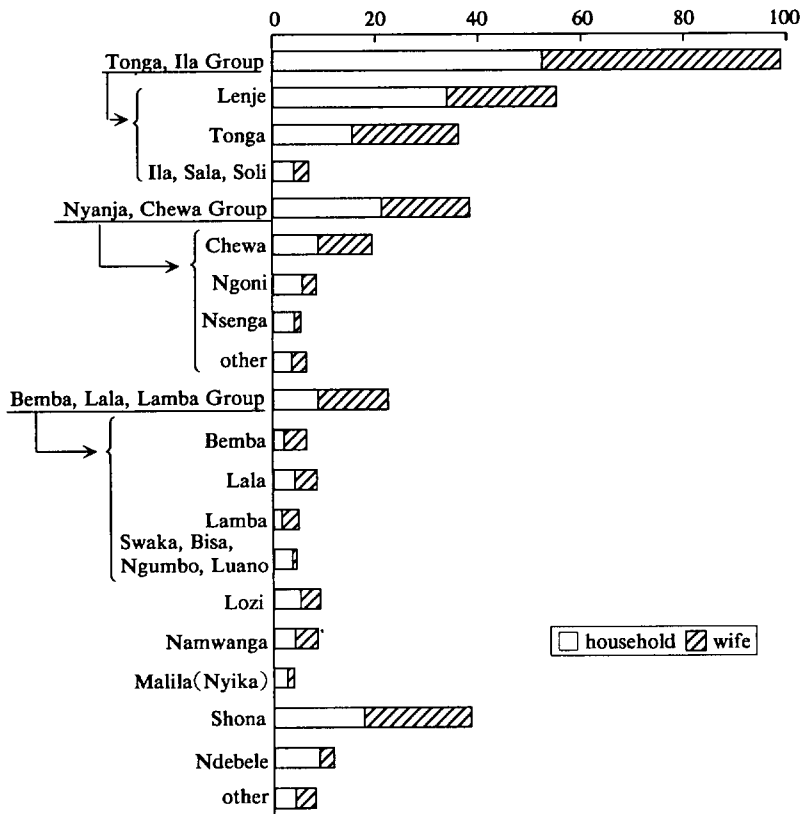
As Fig. 2 shows, the Lenje is the largest ethnic group in the village. However, it accounted for less than a quarter of the total (23 percent). As far as the wives were concerned, the Lenje, the Tonga and the Shona were almost equal in number. Lenje were majority in the Lenje chiefs' areas as a whole in the 1970s although there were a number of non-Lenje (Muntemba 1977a: 361). It appears that the proportion of the Lenje was quite low in Chinena village, although it is under Lenje chief and Lenje headman.¹⁵ There were also many Tonga (15.2 percent) and Shona (16.0 percent) in the village. There were some Tonga villages around Chinena village and Chikankata village which was Chinena's northern neighbor was

¹³ During the 1990 Census every person was asked to state his/her predominant and second languages of communication. The predominant language was defined as the language most frequently used for one's day-to-day communication with his/her neighbors at all places (Zambia, CSO 1994a:34).

¹⁴ We classified ethnic groups according to a Tribal and Linguistic Map of Zambia published by the Government Printer. D.H. Davies' *Zambia in Maps* (Davies 1971:34) also shows the same map.

¹⁵ To be exact, the headman's mother is Swaka, so he is not a pure Lenje.

FIGURE 2. ETHNIC COMPOSITION OF THE HOUSEHOLD HEADS AND WIVES



one of them. There has been a north-bound migration of the Tonga people from Southern Province, their original home area. The village population comprised of a variety of ethnic groups. Not only ethnic groups of Tonga, Ila Group but also groups such as Nyanja-Chewa, Bemba-Lala-Lamba and Lozi lived in the village. As the places of birth were diverse, so were the ethnic groups of villagers numerous.

While the Lenje is only one of the many ethnic groups living in the village, they regard themselves as the ‘owners of the land’ and the village headman who is from Lenje is responsible for allocating land in the village.

As stated earlier, Chinena village is divided into 8 Sections. Ethnic composition of the village population varied from one Section to another. Ethnic composition of the Sections A and B , which were largest and oldest sections in the village, was complex and diverse. Out of 46 household heads in the Section A, 15 were Lenje, 6 Tonga, 4 Chewa and 4 Nsenga. In some Sections ethnic composition of the household heads were quite simple. The household heads of the Section C were all of Zimbabwean origin. Household heads of the Section E were closely related. The center of the Section E families were a Lozi old man and his wife (Lenje). Of the 7 household heads in the Section E, four were their son and daughters, while one head was a nephew of the old man. Whereas ethnic composition of household heads of

the Section C was quite simple, that of their wives were diverse including Chewa, Tonga, Lenje, Xhosa and Kaonde/Lamba. This has resulted from inter-ethnic marriages which were quite common.

Effects of Population Increase

On the one hand, the strategy to accommodate immigrants of large ethnic diversity contributed to the prosperity of agriculture of the village because in the process the village received those with entrepreneurship, skills and progressive attitude. On the other hand, substantial in-migration and consequent rapid population growth have increased the pressure on land and resulted in land scarcity in recent years. The situation has made some villagers, new migrants in particular, landless, while there was a concern among some villagers that the headman allowed too many outsiders to come and settle in the village (Kajoba 1994). The land has become so scarce that there were some cases of disputes over land between villagers as well as with neighboring villages.

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ACKNOWLEDGEMENT

The field study was funded by the Grant-in-Aid for Scientific Research, Project Nos. 04041094 and 06041007, Ministry of Education, Science and Culture of Japan. The titles of the research projects are 'Land use and environmental change of dambos' and 'Land use and environmental problems of water logged areas.' Both of the research projects were headed by Professor Shuhei Shimada of Tohoku University.

REFERENCES

- Becker, C.M. and Morrison, A.R. 1995, 'The growth of African cities: theory and estimates' A. Mafeje and S. Radwan eds. *Economic and Demographic Change in Africa*. Clarendon Press, Oxford.
- Chipungu, S. N., 1988, *The State, Technology and Peasant Differentiation in Zambia: A Case Study of the Southern Province, 1930-1986*. Historical Association of Zambia, Lusaka.
- Davies, D. Hywel ed. 1971. *Zambia in Maps*. University of London Press.
- Dodge, Doris Jansen 1977, *Agricultural Policy and Performance in Zambia*, Institute of International Studies, Berkeley.
- Hanzawa, K. 1994, 'Agricultural production and economic activity in Chinena village: economical significance of dambo use'. *The Science Reports of the Tohoku University*, 7th series (Geography), vol. 44, no.1, June.
- Kajoba, G.M. 1994, 'Changing perceptions on agricultural land tenure under commercialization among small-scale farmers: the case of Chinena village in Chibombo District (Kabwe Rural), Central Zambia'. *The Science Reports of the Tohoku University*, 7th

Series (Geography), vol.44 no. 1, June.

- Loxley, John 1995, 'Rural labour markets in an adjusting mineral economy: Zambia', Vali Jamal ed. *Structural Adjustment and Rural Labour Markets in Africa*. Macmillan Press, Houndmills.
- Moore, H.L. and M. Vaughan 1994, *Cutting down Trees: Gender, Nutrition, and Agricultural Change in the Northern Province of Zambia, 1890-1990*. Heinemann, Portsmouth.
- Muntemba, M.S. 1977a, 'Rural underdevelopment in Zambia: Kabwe Rural District, 1850-1970'. PhD dissertation, University of California Los Angeles
- Muntemba, M.S. 1977b, 'Thwarted development: a case study of economic change in the Kabwe Rural District of Zambia, 1902-70'. R. Palmer and N. Parsons eds. *The Roots of Rural Poverty in Central and Southern Africa*. Heinemann, London
- Muntemba, M.S. 1978, 'Expectations unfulfilled: the underdevelopment of peasant agriculture in Zambia: the case of Kabwe Rural District, 1964-1970' *Journal of Southern African Studies*, vol. 5, no. 1
- OECD, Club de Sahel 1995, *Preparing for the Future: A Vision of West Africa in the Year 2020--Summary Report of the West Africa Long Term Perspective Study*
- Pottier, Johan 1988, *Migrants No More: Settlement and Survival in Mambwe Villages, Zambia*, Manchester University Press, Manchester
- Sakaida, K. 1993, 'Rainfall changes and their effects on maize production in Zambia'. *The Science Reports of the Tohoku University*, 7th series (Geography), vol. 43, no.1, June.
- Shimada, S. ed., 1993 *Agricultural Land Use and Environmental Change of Dambo: a Case Study of Chinena Village, Central Zambia*. Institute of Geography, Faculty of Science, Tohoku University, Sendai
- Shimada, S. ed., 1995 *Agricultural Production and Environmental Change of Dambo: a Case Study of Chinena Village, Central Zambia*. Institute of Geography, Faculty of Science, Tohoku University, Sendai
- Sutherland, 1984, 'Extension workers, small-scale farmers, and agricultural research: a case study in Kabwe Rural, Central Province, Zambia,' ARPT, Rural Sociology Section, Mt. Makulu, Lusaka
- Weeks, John 1995, 'Income distribution and its implications for migration in sub-Saharan Africa' A. Mafeje and S. Radwan eds. *Economic and Demographic Change in Africa*. Clarendon Press, Oxford.
- Zambia CSO (Central Statistical Office) 1985, *1980 Population and Housing Census of Zambia: Analytical Report*, volume III. CSO, Lusaka
- Zambia CSO 1990, *1990 Census of Population, Housing and Agriculture: Preliminary Report*. CSO, Lusaka
- Zambia CSO 1994a, *Census of Population, Housing and Agriculture 1990*, vol.1, *Central Province, Analytical Report*. CSO, Lusaka
- Zambia CSO 1994b, *Census of Population, Housing and Agriculture 1990, Descriptive Tables*, vol. 10, *Zambia Total*. CSO, Lusaka.