MIGRATION AND CHANGE
IN RURAL ZAMBIA
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IN RURAL ZAMBIA

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Problems of rural development are by nature multi-faceted and cannot be grasped through a one-dimensional study. It is therefore encouraging when researchers representing different disciplines get together and provide ideas complementary to each others’ foci. In this report two authors attempt to bring together economic and anthropological analyses in order to paint a fuller picture of the situation of rural smallholders in the wake of rural-urban migration in Zambia.

Hans Hedlund is a social anthropologist who has worked and done research in Zambia for several years. Mats Lundahl is an economist who has studied the preconditions for economic development in the Third World generally. Both authors are attached to the University of Lund, Sweden.

The Scandinavian Institute of African Studies pays continuing attention to the problems of rural development in Africa. We take pleasure in publishing this report which marks a step in the direction towards interdisciplinary approaches to the study of rural development, which are urgently needed.

Michael Ståhl
Director
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of African Studies
The present work focuses on the process of rural-urban migration in Zambia and on the consequences migration has had for the rural economy and society. The study represents an attempt to connect anthropological fieldwork (carried out by Hans Hedlund in 1974-78) and analysis with current economic theories of migration. The result is a book which should not be read as a monograph — because it isn’t — but rather as a set of more loosely connected chapters grouped around the migration theme.

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1 INTRODUCTION:  
URBANIZATION IN THE THIRD WORLD

One of the most difficult problems facing politicians and development planners in the Third World today is the extraordinary rate of growth of urban areas and in particular of the major cities. High rates of natural population increase together with a mounting inflow of people from rural areas combine to create a situation which must be deemed to be spectacular.

Increasing urbanization is scarcely a new phenomenon in the process of economic development. What is new is the speed with which the process sometimes takes place and the social and economic circumstances surrounding it. The 1979 World Development Report of the World Bank succinctly summarizes the issue:

The features of contemporary urbanization in developing countries differ markedly from those of historical experience. Whereas urbanization in the industrialized countries took many decades, permitting a gradual emergence of economic, social and political institutions to deal with the problems of transformation, the process in developing countries is occurring far more rapidly, against a background of higher population growth, lower incomes, and fewer opportunities for international migration. The transformation involves enormous numbers of people: between 1950 and 1975, the urban areas of developing countries absorbed some 400 million people; between 1975 and 2000, the increase will be close to one billion people.1

In 1950, an estimated 38 percent of the total urban population in the world lived in Third World cities. In 1975, the figure was over one-half, and by the year 2000, it is expected that

1 World Bank (1979), p. 72.
two-thirds of all urban dwellers will be found in the less developed countries. Among the major cities, growth rates in excess of 5 percent per annum are not at all uncommon, either in Africa, Asia or Latin America, and the growth of many cities exceeds 7 percent per annum.

At present, not more than one-quarter of the total population of the Third World is considered urban, while in developed countries the corresponding figure is 70 percent. Thus, the problem is not the size of the urban population but the rate at which the population is growing. Whether this extraordinary growth of major Third World cities is due mainly to a high intrinsic growth of the already urbanized population, or rural-to-urban migration is the most important cause is subject to some dispute. We have no reason to pursue that issue here. Suffice it to say that in-migration to urban districts, be it responsible for 30 or 60 percent of total urban growth, is large enough in the majority of the countries of the Third World to warrant both serious interest and serious concern.

Without doubt, a mobility revolution is taking place in the Third World. For how long this revolution will continue, we do not know. Clearly, it cannot go on for ever. It does not seem very realistic to expect urban growth rates of 4 percent or more to be sustained in the long run. These high rates will presumably turn out to be a phenomenon which is mainly characteristic of the earlier phase of Third World urbanization.

Two sets of forces, at least, are likely to act as an eventual brake on the influx. In the first place, when the urban population grows, the cost of living in the cities is likely to increase in comparison to that of rural districts. Investments must be made in public infrastructure and urban services, which somehow must be financed. The inelastic supply of urban land will lead to increases in rents. The pecuniary costs associated with pollution and congestion will rise. In aggregate, the relative cost of living in the

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5 See e.g. ibid., pp. 697-70, Keyfitz (1980) and Rogers (1982).
8 Ibid., p. 467.
9 Ibid., pp. 477 ff., Linn (1982). This may of course also lead to an increase in the number of urban areas.
cities will increase.

If these costs to the individual are not going to stem the rising tide of urbanization, real incomes must rise as well. However, this will not necessarily occur. Here, the possibility of getting a job in the city is of central importance. The general development literature of the 1950s had a strong tendency to view rural-urban migration as a process unambiguously conducive to economic growth and development. By transferring idle or low-productive labor from agriculture and related activities to the urban industrial sector, it was envisaged that per capita incomes would rise both in rural and in urban districts.

Today, we are not so certain anymore. According to Michael Todaro, 'it is now abundantly clear from recent LDC experience that rates of rural-urban migration continue to exceed rates of urban job creation and to surpass greatly the capacity of both industry and urban social services to absorb this labor.'10 With a sufficiently rapid increase in urban unemployment, expected urban incomes will not rise. They may even contract — also for those who have a job — and the prospective future migrants may find themselves squeezed between this fall and a rise in the expected cost of living in the city. To quote Arthur Lewis,

No doubt, there is some equilibrium level of urban unemployment which corresponds to each ratio of urban to rural income, subject to some maximum unemployment level at which the chance of getting even one day's work a week becomes so small that it is better to go back to the countryside.11

The attainment of these equilibria may, however, be artificially delayed, often as a result of the policies pursued by the central governments.12 Frequently, development expenditures are heavily concentrated on the cities. The leading politicians themselves live in urban districts, and so do an important number of their voters. When decisions are taken to improve the cities, city life naturally becomes more attractive, not only for those already living there, but for prospective migrants, who would otherwise

12 Bangladesh is a good case in point. See de Vylde (1982).
have remained in the countryside, as well.

Urban activities are supported in various ways. Manufacturing industries receive cheap credits, subsidies, tariff protection when competing with imported goods, tariff exemption for imports of inputs or raw material etc. Industrial workers benefit from minimum wage legislation and social security that is not available for the farming population,\(^\text{13}\) while the price of foodstuffs is kept artificially low by means of price control on agricultural products. Urban public utilities, such as electricity and public transportation networks, run at a — politically determined — loss.

The rapid urbanization of the Third World has its counterpart in what is taking place in the rural areas that have been subjected to out-migration. However, while plenty of research has been devoted to examination of the impact of in-migration on the urban economy, relatively little attention has been paid to the effects on the rural, predominantly agricultural, economy. The dualistic models which were in vogue in the 1950s and 1960s considered the rural economy as little else than a pool of labor to be drawn from in the process of industrialization, by and large disregarding what happens in the countryside as people leave.\(^\text{14}\)

For a long time, the conventional wisdom was that out-migration from rural areas would increase per capita incomes there, simply by increasing the marginal product of labor and reducing the allegedly high rates of disguised unemployment that prevailed in the rural areas. With out-migration, the available work and income would be shared by fewer people and the marginal product of labor would increase.

This view, however, has not been universally accepted. In Chapter 2 we will review some models of international and inter-regional migration which show that rural-urban migration does not necessarily raise incomes in the countryside even in terms of theory. Similarly, there has been no shortage of criticism based on empirical findings. Gunnar Myrdal included migration as one of his prime examples of how 'backwash effects' are generated in one area by economic expansion in another:

The localities and regions where economic activity is expanding will attract net immigration from other parts of the coun-

\(^{13}\) Unless, of course, they lose their jobs.

\(^{14}\) Notably the model by Lewis (1954).
try. As migration is always selective, at least with respect to the migrant’s age, this movement by itself tends to favour the rapidly growing communities and disfavour the others.\(^\text{15}\)

This argument has been revived recently by Michael Lipton, as part of his attack on what he perceives as a generalized ‘urban bias’ among politicians and planners in the Third World.\(^\text{16}\) The villages in less developed countries are being drained of their most able manpower as a result of a host of policies designed to favor urban activities in general and industrialization in particular. The result is stagnation and retrogression in the villages.

The only possible conclusion is that rural-urban migration does not necessarily benefit those who remain behind in the countryside. Nor does it, for that matter, necessarily make them worse off. The outcome is not determinate but varies according to the particular circumstances at hand in each case. In order to determine these various outcomes, theoretical endeavors must be complemented by empirical research.

The Scope of the Present Study

The present work is a case study of the effects of out-migration on the rural economy. It represents an attempt to give a somewhat more detailed picture of these effects than what is usually the case in the economic analyses of rural-urban migration. The empirical material employed comes from Zambia, mainly from the Eastern and North Western provinces.

Chapter 2 surveys some of the relevant literature on migration and economic development. The well-known Lewis and Harris-Todaro models are presented. The bulk of the chapter is devoted to a survey of some theoretical and empirical evidence of the welfare effects of out-migration on those remaining in the countryside.

In Chapter 3, the main features of Zambian agriculture, as they appear in a historical perspective, are presented. An account is given of the traditional African, i.e. pre-European, system of cultivation. Thereafter, the changes that took place during the colonial period are described. Finally, a brief overview is given of the post-independence period. The last part of the chapter deals

15 Myrdal (1957), p. 27.
16 Lipton (1977).
with the role of migration in the Zambian economy, from the beginning of the century to the present day.

Chapter 4 deals directly with the out-migration from two Chief Areas in Chipata District in Eastern Province. The migration history of Chipata is sketched and the patterns that characterize the contemporary situation are outlined.

Chapter 5 analyzes the causes and effects of this migration. The Harris-Todaro model is used to shed some light on the migration decisions. Some of the psychic costs and benefits of migration are discussed. The remainder of the chapter is devoted to tracing the consequences of migration for the rural economy. It is shown that in the Chipata case migration creates a labor problem for many households which in turn has negative repercussions as far as their incomes are concerned.

Chapter 6 deals with a particular consequence of migration. In the traditional African economy, consumption of beer fulfilled an important economic role, since beer was used as an instrument for reciprocal labor mobilization. It is demonstrated that migration to the cities has tended to disturb this pattern and confine the traditional use of beer to one particular group in rural Zambian society and that the reciprocal element has been lost.

Chapter 7 discusses one of the most commonly applied measures for mitigating the negative consequences of out-migration from rural districts: the use of settlement schemes designed to increase the output and incomes to the rural population. The rationale behind the schemes is sketched and a brief history of Zambian settlement schemes is given. The difference between commercial schemes and subsistence schemes are analyzed. The final section deals with a particular settlement scheme, that of Nyangombi in North Western Province. It is shown that the scheme has mainly had negative consequences, not least with respect to the economic and social relations between the two sexes, while the output and income effects have been more or less negligible.

The Epilogue summarizes the study.
The 1950s was the decade when development first established itself as a new and important field in the discipline of economics.\textsuperscript{1} During this period, and well into the 1960s, development theory was heavily influenced by the models of economic growth that had emerged after the Second World War\textsuperscript{2} – to the point where growth and development were taken to be more or less synonymous. Development theorizing concentrated on the question why certain economies grew while in others, the gross national product per capita remained stagnant, or even fell. Growth was the overriding objective for government and planners.

This was the age of growth accounting. With the aid of aggregate production functions, usually of the Cobb-Douglas variety, the relative contribution of growth in the labor force and in the capital stock were ‘measured’.\textsuperscript{3} Whatever could not be attributed to these two forces, the residual factor, was taken to be a result of technological progress – in a wide sense. This type of exercise often left a lot to be desired, not least when it was undertaken for less developed countries, where data were so scanty that heroic assumptions had to be made, which in turn rendered the conclusions more or less worthless.\textsuperscript{4}

Capital formation was the solution to the problem of underdevelopment. In the normative field, efforts were concentrated

\textsuperscript{1} An overview of development economics in the 1950s is given in Lundahl (1979:2).

\textsuperscript{2} A good sample of these writings is found in Harcourt & Laing (1971), Sen (1970) and Stiglitz & Uzawa (1969). A survey is found in e.g. Hahn & Matthews (1965) and, less technically, in Kregel (1972).

\textsuperscript{3} See Nelson (1973), Lundahl (1982), and the literature referred to there.

\textsuperscript{4} See in particular Maddison (1970), Chapter 2.
on finding strategies which maximized the overall growth rate of the economy. Growth models of the Harrod-Domar type,\(^5\) that emphasized savings and capital-output ratios, often lay behind development plans. Turnpike theorems, showing the fastest growth paths, were developed.\(^6\)

**Economic Development and Rural-Urban Migration**

There was, however, one model which attracted a great deal more attention from development economists than most others. This was the celebrated dualistic model originated by Arthur Lewis.\(^7\) The Lewis model, which divides the economy into one 'modern' and one 'traditional' sector, the former usually considered as manufacturing and the latter as agriculture, shows how the modern sector can grow with the aid of an 'unlimited' supply of labor. This supply, which in the main is assumed to be forthcoming from the traditional sector, is available at a constant wage rate. As the profit share of gross domestic product grows and profits are reinvested in the industrial sector, employment expands in the latter sector without causing any upward pressure on the unskilled wage rate. Gradually, migration takes place from rural areas to industrial centers until, at a later stage in the growth process, the traditional sector has lost so much labor that the further expansion of employment in the modern sector competes with the demand for labor in the traditional one. The economy has reached the turning point, where the unskilled wage rate begins to increase. The supply curve of labor assumes the normal, upward-sloping, shape. The 'unlimited' supply of labor has been exhausted and the rate of growth slows down.

The Lewis model is intimately connected with migration. It is the very expansion of the modern, dynamic sector of the economy that triggers the movement of labor from rural to urban districts. As the demand for labor increases in industry, laborers move into the cities. Thus, an essential feature of the Lewis model is that the expansion of the urban labor supply does not outstrip the creation of employment opportunities in

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\(^6\) See in particular Dorfman, Samuelson & Solow (1958), Chapter 12.

\(^7\) Lewis (1954). Cf. also Lewis (1955), (1958), (1972) and (1979). The criticism that has been directed towards the Lewis model is dealt with in Lundahl (1979:2).
the modern sector. Why should people in rural areas where the extended family system offers at least some security want to move to an utterly insecure future in the urban informal sector where jobs easily are as scarce and as ill-paid as in the countryside?

However, in the real world employment in the modern sector does in general not expand fast enough. Substantial unemployment can often be found in the cities and many of those who have jobs are occupied in extremely poorly paid informal sector activities that yield only a minimal standard of living. In spite of this, industrial wages have generally increased, both absolutely and in relation to the rural income level.

Thus, there was clearly something wrong with a view that held that migration to the cities would go hand in hand with the expansion of employment in manufacturing. The statement, at least, needed substantial qualification. The attraction of cities is not solely determined by 'pull' factors. Of course, more job opportunities, higher wages, better education, entertainment and a more varied social life provide a considerable attraction, but at the same time, the poverty prevailing in many rural areas, with incomes stagnating at near subsistence level, or even falling, provides a powerful 'push' out of the countryside.

In Africa and South Asia, though not in Latin America, the typical rural-urban migrant was found to be 'young, better educated than the average rural resident, and predominantly male. It is also known that migrants tend to move to places with higher income than their origin, and that the availability of friends and relatives at the point of destination increases the attraction of the location, while distance between the two locations reduces the attraction.

The above quotation summarizes some of the most important determinants of rural-urban migration in less developed countries, as these emerge from the empirical literature on the subject. The attraction of the cities is manifold and cannot easily be reduced to one or a few dimensions. Nevertheless, economic factors undoubtedly play an important role.

8 Jolly et al. (1973), p. 13.
9 Different aspects of this sector are dealt with in the articles in Bromley (1979).
This constitutes the basis of the most well-known model of internal migration in less developed countries, the one constructed by Michael Todaro and John Harris.\textsuperscript{11} The Harris-Todaro model explicitly acknowledges the existence of urban unemployment. It also points to the gap between the urban and rural income levels in that it postulates that wages in, say, manufacturing may be substantially higher than what can be earned in agriculture, and that this wage gap may be persistent over long periods. The agricultural sector in the Harris-Todaro model has a choice between the employment of labor to produce an agricultural good, that is traded with the urban sector of the economy, and the 'export' of labor to urban areas where some may be able to find a job in manufacturing, while others remain unemployed.

The rate of rural-urban migration is a function of the (known) earnings in agriculture, on the one hand, and of the expected wage in manufacturing on the other. The wage rate prevailing in the manufacturing sector is weighted with the probability of obtaining a job in manufacturing and the difference between this expected urban wage and earnings in the rural sector decides the rate of migration. In a somewhat different formulation,\textsuperscript{12} Todaro has also taken into account that the probability of obtaining a manufacturing job may not be the same in all periods, but that as the contact net of the migrant increases, the probability of finding a job becomes higher and with that also his expected income during that period.\textsuperscript{13}

It was stated above that the 1950s was a decade when development by and large was equated with economic growth. At the beginning of the 1980s, this is no longer held to be the case. In most reasonably widely accepted definitions of economic development, distributional aspects play an important role. Growth of the gross national product per capita is taken to represent development only insofar as it does not lead to a markedly increased skewness in income distribution or to an increase in the number of people with a living standard below a 'poverty line' represented by the income needed to get access to a basket of goods that

\textsuperscript{11} Harris & Todaro (1970).
\textsuperscript{12} Todaro (1971).
\textsuperscript{13} A comparison of the Harris-Todaro and the Todaro models is made in Blomqvist (1978), where a synthesis of the two is also suggested. The comparison is extended to the Blomqvist model as well in Arellano (1981).
are basic in the sense that they represent some kind of (socially defined) subsistence level.\textsuperscript{14}

With this perspective, rural-urban migration is seen in a somewhat different light than twenty or twenty-five years ago. Today, much of the interest in migration is due to the fact that moving from rural to urban areas may be a way of both reducing income differences between rural and urban districts and of ensuring that low-income earners in the countryside could improve their living standards. Not only is it possible for the migrants to improve their economic conditions, but when some of the pressure on natural resources in the countryside is removed, those who stay behind may also be better off.

Much of the migration literature concentrates its attention on what happens to the migrants. This literature generally reaches the conclusion that migration is successful as an equalizer of rural and urban incomes, and, simultaneously, that migration yields a positive contribution to national output and overall growth. Thus, Lorene Yap, in a review of migration literature up to the mid-seventies points out that

For instance, the level of private returns indicates how useful migration is in relieving rural poverty and improving the resource allocation within a country. Similarly, the case of finding employment and the degree of migrant assimilation in the urban labor market indicates the competitive position of migrants, and the need, or lack of need, for special migrant assistance programs or for policies to direct migrants to more promising employment areas. Although unverified at this point, the addition of young, competitive individuals to the urban labor force may also have a significant, positive effect on urban and national output growth.\textsuperscript{15}

According to Yap's survey, most of these contentions are borne out by actual experience. Those who migrate to urban areas increase their welfare fairly rapidly. They do not have to wait for too long before they find a job. Nor are they limited to marginal types of employment. Even more surprising is that the aggregate

\textsuperscript{14} Meier (1976), p. 6. Cf. e.g. Kahn (1977), Streeten (1982) and Streeten et al. (1982), for a discussion of basic needs.

\textsuperscript{15} Yap (1977), p. 250.
unemployment rate is often lower for migrants than for native city-dwellers. Even though much of this is perhaps due to the measurement methods employed, it has also been interpreted in terms of the greater willingness of the migrants to accept less well-paid jobs. Migrants are, however, not unduly concentrated in the informal urban sector. Although many of the young and newly arrived migrants start in this sector, they tend instead, after a period of time, to move on to employment in the formal part of the urban economy. Finally, return migration does by and large not appear to be due to economic failure in the cities, but to other factors, that are at least as important in determining who will eventually return to the countryside.

The Effects of Migration on Rural Areas

The view that holds migration to be beneficial has, however, not been unchallenged. Harris and Todaro derive necessary and sufficient conditions for a decline in the welfare of the rural sector (including the migrants) as a result of migration.¹⁶ When a worker is removed from agriculture, production falls in this sector. As a result, the sector foregoes a certain amount of manufactures that could have been obtained by trade with the urban sector. This loss has to be compared to the expected urban wage that the migrant will receive, taking into consideration that migration will increase urban unemployment and thus also lower the expected earnings of all migrants who are already in the urban labor force. The net outcome of the negative and positive effects cannot be determined with certainty.

In the present context, the most interesting question is whether those who remain in rural areas make a gain or a loss (i.e. we exclude the migrants themselves from the analysis). The outcome very much depends on the specification of the model on which the analysis is based.

Neoclassical Models

Let us assume, as is usually the case in neoclassical economic theory, that all production factors are paid the value of their marginal product and that production functions are linearly homogeneous. In the simple setting of infinitesimal migration in a one-good, two-factor (labor and capital or land) model, the incomes of the non-migrants are not affected. When the migrants

leave, they leave with the value of the marginal product of their labor. The output accruing to those remaining behind, and hence their welfare, is not affected.\footnote{Grubel & Scott (1966), p. 270. A good synthesis of the literature on the welfare effects of international migration up to the mid-seventies is available in Bhagwati & Rodriguez (1976).}

With \textit{finite} migration, the remaining group is certain to make a loss under otherwise equal conditions. When working in the rural economy, the migrants were rewarded by the value of their marginal product. Finite migration will raise this product. As long as the marginal product of labor curve slopes downward, i.e. as long as diminishing returns to labor prevail, those remaining behind make a loss which is equal to the difference between the marginal loss of output and the pre-migration wage multiplied by the number of migrants.\footnote{Berry & Soligo (1969), pp. 779-81, Kenen (1971), pp. 239-41. As Kenen points out, conventional analysis has often erred in comparing incomes per capita of the \textit{entire} pre-migration population with those of the \textit{reduced} post-migration population in the source country or region. The correct procedure is to compare the pre-migration and post-migration incomes of the latter group only. This comparison shows that there is a fall in the welfare of this group, since the output available to its members is reduced.}

The above is true as long as the migrants do not own any of the complementary factor. If, on the other hand, ownership of capital (or land) is equally distributed in the economy, and the migrants leave their capital (land) with the non-migrants, continuing to receive the factor payment accruing to them as capital (land) owners, the non-migrants will benefit from migration. The gains in terms of labor income outweigh the losses in terms of capital (land) income.\footnote{The proposition is not obvious. A simple geometric proof is, however, given in Berry & Soligo (1969), p. 782.} When the migrants leave, the return to the complementary factor falls. This imposes a loss on the owners of this factor, part of which is borne by the migrants. (When the migrants possess only their own labor, the entire loss falls on the non-migrants.) There is then also of course some ratio of capital ownership among migrants to capital ownership among non-migrants which would leave the incomes of those remaining behind unaffected. Finally, if the migrants take their entire l
outcome is not determinate. If the emigrant region imports the labor-intensive commodity, the excess demand that arises for this commodity as a result of emigration is expressed as an increase in the demand for imported goods. The region moves along the foreign offer curve in the direction of deteriorating terms-of-trade. In this situation, lump sum transfers from gainers (workers) to losers (capitalists) are not possible and the region loses as a result of migration. On the other hand, a welfare gain will be achieved when the emigrant region exports the labor-intensive commodity, which is perhaps the most realistic case in less developed countries.

Finally, the effects on welfare become complicated when migration takes place between two regions that only trade with each other. Peter Kenen investigates the case where the recipient region displays 'a product-neutral, factor-neutral superiority in economic efficiency' which raises the wage rate in this region as compared to the source region in order to create a migratory flow. The source region is assumed to be a net seller of the labor-intensive good and to continue to be so after migration in the absence of changes in relative commodity price. The two regions display the same homothetic tastes, and product prices are the same in both regions. Given these assumptions, the remaining residents of the source region will suffer a welfare loss from emigration in the sense that lump sum taxes cannot be employed by the gainers (capitalists) to compensate the losers (workers). This complicated result, however, is crucially dependent on the choice of reasons for the wage differential. Nevertheless, it serves to point out that the consequences of labor migration for the source region are not determinate. Migration may lead to a loss for the non-migrants but could also result in a gain.

The two-good models reviewed so far have been models where both commodities are traded goods. Allowing for non-traded goods may change the results. If we allow one of the commodities of the two-good model to be non-traded (it could be a service) so that its price is determined by the interaction of

24 The following deals only with the case where the emigrant region produces both goods. For the case of complete specialization in production, see Bhagwati & Rodriguez (1976), p. 92.
26 Ibid., pp. 250-51.
27 Rivera-Batiz (1982).
demand and supply in the emigrant region, while the other commodity (all other commodities) is bought and sold at a given price, when tastes are identical and homothetic, out-migration will unequivocally lead to reduced welfare for those remaining in the emigrant area. The reason is that when the migrants leave, the non-migrants are forced to restrict their consumption to what is given by their own production possibilities. They can no longer exchange goods with the migrants. This conclusion holds regardless of whether the traded or the non-traded commodity is taken to be the labor-intensive one.28

Our survey of analytical models that deal with the effects of out-migration on the welfare of non-migrants has been limited to models cast in the framework of comparative statics. This does not mean that there is a lack of models expressed in dynamic terms. They most certainly exist. However, in the present context we will not discuss the transitional gains or losses that arise from migration before the economy returns to its former steady state or how steady states themselves may be changed as a result of migration leading to changes in capital formation. The reader is referred to the literature on the subject.29 In one sense — the sense that is of importance in the present work — the message conveyed by these models is the same as the one contained in the comparative static models: whether migration increases or decreases the welfare of the group that remains behind (in the analytical model) to a very large extent depends on how the model is formulated.

Some Non-Neoclassical Arguments
We will return to some of the neoclassical models in Chapter 5, where the consequences of out-migration from Chipata District in Zambia are dealt with. The discussion of which model fits the Zambian reality best will thus be deferred to that chapter. However, to complete the general picture we will now go on to examine some other arguments that are not phrased in neoclassical terms.

Keith Griffin has argued that out-migration is likely to be beneficial for those who remain in the countryside.30 Let us as-

28 The result does not necessarily hold if other types of model specifications, involving non-traded goods, are used. (Ibid., p. 86.)
30 Griffin (1976).
sume that the migrants when living in rural areas were members of an extended family. If the contribution of the migrants to rural production was positive, the gain for those remaining behind is equal to the difference between what the migrants consumed and their contribution to output (the value of the marginal product of labor). In neoclassical models, strictly speaking, no such gain would exist, since the consumption of a worker (owning no land or capital) could amount to no more than his explicit or implicit wage which in turn equals the VMP of labor. Under the extended family system a difference could, however, arise and as long as the migrants consumed more than their contribution to output migration would increase the welfare of the non-emigrants.

According to Griffin, out-migration is also likely to make the distribution of income in the countryside more equal. When the supply of labor contracts as a result of migration, wage rates are likely to rise, and if the possibility of substituting land (or capital) for labor are small, the share of wages in total rural income will rise.31

Griffin’s argument builds on the assumption that the rural labor force is homogeneous. All workers have identical skills. If, on the other hand, some of the more skilled elements leave, the welfare of those remaining may be negatively affected: ‘For example, the emigration of the village baker could deprive the rest of the community of the “staff of life”’.32 Griffin does, however, not accept this possibility as a realistic one but argues that the elasticity of supply of skilled rural workers is high, so that the baker can be quickly replaced, especially if he leaves his tools behind when migrating. Heterogeneity of skills may, however, lead to other, and more important, negative consequences. This possibility has been strongly emphasized by Michael Lipton.33 According to Lipton, whether the village baker leaves or not is a minor problem. It is ‘if skilled persons as a whole leave villages as

31 Griffin argues in terms of a one-good, two-factor (labor and land) model. He furthermore assumes that wage earners on average earn less than landlords. If the elasticity of substitution between labor and land is below one, his result obtains. (Cf. Hicks (1932), Chapter 6.)
33 Lipton (1977), Chapter 9, Lipton (1980). The empirical evidence used by Lipton is contained in Connell et al. (1976), especially Chapters 5-7.
a whole, [that] ... effective replacement is a major problem."\textsuperscript{34}

Lipton begins by making the point that the poorest groups do not move to the extent that one would expect. "... if the really poor villager moves at all, it is usually temporarily, to a job in the urban periphery, or even no job at all — to crime, beggary, prostitution, all the currently romanticised delights of the "informal sector"."\textsuperscript{35} Rather, there are two groups of rural-urban migrants, whose characteristics differ:

The deficit farmers and landless labourers — though seldom the very poorest, who cannot afford the initial cost of movement — tend to be pushed out, as they would not if inequality in the village were less. The sons of the bigger farmers — though seldom the biggest, who must guard their assets, and who have enough for all their sons to prosper rurally — tend to be pulled out, assisted in bearing the costs of urban education or urban job search by the bigger rural surpluses generated by village inequality.\textsuperscript{36}

According to Lipton, the worst-off villagers have problems when it comes to permanent migration to urban areas. They are often bound to the rural district by law or by custom, or by the necessity to work off old debts. Moreover they lack information regarding the available opportunities in town. Alternatively they are unable to take those chances because they are illiterate and lack the financial means to acquire skill and education. Illiteracy is a handicap on the urban labor market. Furthermore, the rural migrant needs support during the time he is looking for a job since he is unlikely to find a job immediately, when arriving in the city. This requires that his family is at least sufficiently well off to provide this support. Finally, a decision by a rural family to send someone to town means deferring present income in the hope of increased incomes in the future. However, precisely because of their poverty the poorest are likely to have strong preference for present over future income. Hence, it is difficult to postpone the enjoyment of income.

Lipton argues that those who stay behind are quite likely to be hurt by migration in that it is the younger and more skilful

\textsuperscript{34} Lipton (1980), p. 8.
\textsuperscript{35} Lipton (1977), p. 216.
\textsuperscript{36} Lipton (1980), p. 4.
elements — ‘the potential leaders of this underclass’\textsuperscript{37} — who leave the countryside. The villagers do not benefit from the skills of these people, even though they have often helped to pay for the acquisition of the skills. They must often support those who have moved to town, at least during the period when the latter are looking for work. They also suffer from the lack of able hands during the periods when these hands are most badly needed. Finally, the departure of the more skilled elements also deprives the remaining poor villagers of efficient political leadership. Unfortunately for the poor, the majority of those who leave are not landowners, moneylenders or employers. Hence the power balance is not tipped in favor of landless, jobless workers who borrow in the informal credit markets. On the contrary, through the loss of the most competent and well-educated among the not so well-off, bargaining strength is lost for the poorer groups.

Women may also be hurt. It is possibly, although not necessarily, the case that women who take over managerial functions on the farmstead following the departure of men, may command a higher status than previously. In traditionally male-oriented societies, especially in Islamic countries, however, the situation may be quite the opposite, with female managers being held in contempt by the remaining males. Furthermore, it is often the men, say fathers or brothers, who take over whatever land the migrants may have left behind. If the migrant returns, he may simply take back his land. A woman who has carried out the cultivation in the meantime, would then lose her managerial role, and with it whatever status that the land might have given her.

Needless to say, as the migrants obtain a job, many of the negative effects of migration on rural society may be offset by financial transfers from urban to rural areas. However, whether this is actually the case is an empirical question, and it is difficult to state anything in general terms. As Terry Byres has shown, Lipton’s own empirical evidence that the main financial flow is from rural to urban districts, and not vice versa, is extremely shaky.\textsuperscript{38} Lipton chooses to use the material that suits his purpose while he forgets the rest. If a total evaluation is made of the material from which Lipton selects his evidence, the conclusion is not that urban-rural remittances are of importance only ‘in a few mining economies of Africa with intensely seasonal, eroded, and “feminine” agricultures’, while in most cases the countryside

\textsuperscript{37} Ibid., p. 8.

\textsuperscript{38} Byres (1979), pp. 230-32.
tional stock with them when leaving, the incomes of the non-migrants will fall, unless labor and capital are removed in exactly the same proportions as those prevailing in the countryside before migration takes place. In this special case, due to the linear homogeneity of the production function, non-migrant incomes are unaffected.20

In a two-good, two-factor setting, where consumer tastes are identical and homothetic and where the emigrant region does not trade with other regions, migration leads to a welfare loss for the former region. It creates an excess demand for labor-intensive goods.21 In the absence of trade, relative commodity prices must change and this forces the population that remains in the emigrant region on to a lower community indifference curve since they are now restricted to choosing from what they produce themselves. As the remaining rural inhabitants are no longer able to trade with the migrants, the economy being closed, they incur a welfare loss.22

This conclusion is crucially dependent on the absence of trade. If the economy is able to trade at given relative commodity prices, the price effect disappears. The excess demand for the labor-intensive product can then always be satisfied by increasing imports or reducing exports of this product (depending on which of the goods that is exported). No welfare loss arises for those who remain behind.23

When only the foreign (imperfectly elastic) offer curve is specified, but relative commodity prices are no longer given, the

20 Ibid., p. 783.
21 With linearly homogeneous production functions, this follows from the Rybczynski theorem (Rybczynski (1955), cf. Chapter 5) plus the fact that when the incomes of those who remain behind fall, if neither good is inferior, the demand for both goods must fall.
22 Kenen (1971). Note that in the two-good case, the difference between infinitesimal and finite migration disappears. Emigration at constant relative commodity prices implies constant relative factor prices and hence constant marginal factor productivities as well, when production functions are linearly homogeneous. (Cf. Samuelson (1953).)
23 As Kenen (1971), note, p. 247, points out, a problem here is what generates migration. The latter is simply taken as an exogenous phenomenon.
subsidizes the cities. On the contrary, concludes Byres, "The evidence on urban-rural remittances, ... suggests a steady, perceptible, and productive flow from the city to the countryside." Lipton does not agree that urban-rural remittances are 'productive'. First of all, 'positive remittances go disproportionately to the better off...'. This is likely to increase economic inequalities in the countryside. It could, of course, be the case that the remittances are being used for investment purposes which in turn would generate additional employment for the poor. Lipton, however, holds this possibility to be fairly remote. If the better-off had known of profitable investment opportunities in the agricultural sector, they would have invested even without receiving any remittances, since this group as a rule has access to credit on profitable terms.

Remittances are mainly used for other purposes, according to the evidence quoted by Lipton, first of all to pay off debts connected with migration itself or with the acquisition of the education necessary for migration. Thereafter comes consumption, including conspicuous consumption, status reinforcement, bride-prices and similar 'social' outlays. The third priority is payment of the migration of other family members. Investment is only ranked in fourth place, and this investment does not necessarily take the form of net capital formation but is often directed towards e.g. land purchases instead, which do not increase the stock of productive assets in the rural economy.

Conclusions
In this chapter, we have reviewed some of the literature dealing with rural-urban migration in the Third World. The celebrated dualistic Lewis model was found to yield a rather inaccurate picture of the circumstances under which this migration takes place. In particular, rural-urban migration has often a tendency to proceed faster than the expansion of employment in the modern sector of the economy. This fact receives a more satisfactory treatment in the Harris-Todaro model, where the possibility that the migrant will remain unemployed in urban areas is taken into account.

41 Lipton (1980), p. 11.
42 Ibid., p. 12.
In the second part of the chapter, attention was focused on the effects of out-migration on those who remain behind in the emigrant region. A number of neoclassical models of international and interregional migration were surveyed, and it was found that migration is not necessarily beneficial for this group. Very much depends on the specification of the model, i.e. on the concrete circumstances under which migration takes place. Thereafter, some arguments that are not phrased in neoclassical terms were discussed. The importance of the heterogeneity of rural society, especially in terms of labor skills, was highlighted. The arguments advanced by Michael Lipton were presented, according to which the out-migration of the better qualified low-income groups from the countryside for example deprives the rural poor of their natural leaders, which in turn puts the poor in a difficult bargaining position vis-à-vis landlords, moneylenders and employers and thereby contributes to keeping the poor poor.

The main conclusions that can be drawn from the material presented in the present chapter are twofold. On the one hand, analytical models do not yield any clear-cut answer to the question of what the effects of out-migration from rural areas are likely to be on those who stay behind. The effects vary according to how the model in question is specified. The second conclusion is that rural society must not be thought of as a homogeneous entity. It contains large disparities both in socio-economic levels and in labor skills which in turn may invalidate some of the conclusions reached e.g. with the aid of simple neoclassical formulations.

In Chapters 4 and 5 we will investigate the causes and effects of rural-urban migration in the context of an African country: Zambia, with special reference to Chipata District in Eastern Province. We will then return to the problem of choosing between the models surveyed here. However, before we proceed directly with the problems of migration, we will provide a short sketch of Zambian agriculture, as it appears in a historical perspective. This will be the subject of the next chapter.
AGRICULTURE AND MIGRATION IN ZAMBIA

In Chapter 2, we surveyed a number of abstract, analytical models of the effects of rural-urban migration as well as some empirical evidence regarding the impact on those who remain in rural areas. This knowledge will serve to give some perspective to the analysis of migration in Chipata District, to be performed in Chapters 4 and 5. To complement this perspective, and to understand properly the analysis of the role of beer in Chapter 6 and of settlement schemes in Chapter 7, we, however, also need to have some idea of the main characteristics of Zambian agriculture and of its connection with the general migration trends in the country.

Zambian Agriculture in a Historical Perspective

The Traditional System

When the Europeans arrived in Zambia around the turn of the century, they found a number of ethnic groups that exhibited great similarities in their cultural patterns, in spite of considerable differences in language and political organization. Moreover, production practices, technology and division of labor, with certain regional variations, were fairly similar.¹ All the groups were primarily agriculturalists who applied some form of the slash-and-burn techniques commonly denoted as chitemene.²

In all these systems, the main implements were the hoe and the axe, the latter for cutting tree branches and the former for

¹ The large Tonga group in the south used the term kuvhuna (cutting trees in the fields. The Lozi in the west, who also had developed a system of irrigation farming along the Zambezi, called their swidden gardens matema, while in the east the Chinyanja speaking Chewa and Ngoni called them vikuse and the northern Bemba, whose denomination now is in common use across the national territory, called the practice chitemene.

preparing the ground for crops after the branches had been cut and burned. Circular clearings were made in the forest, which, fertilized by the ash, could be used for up to three, and sometimes four, consecutive years. Then they were left fallow for some 20-25 years. The main crops were staples like finger millet and cassava, and in some areas corn and sorghum. The men did the clearing and the women were responsible for the planting. Agricultural work was often carried out on a communal basis, with the person whose field was to be cultivated providing beer made from millet or corn for those assisting in the fieldwork. (We will come back to this practice at some length in Chapter 6 below.) The produce was generally individually owned. A man and his wife often had different store rooms for their respective crops.

In some regions, cattle were kept. In the west the Lozi and the Luwale were the main cattle keeping groups, in the east the expanding Ngoni and in the south the Tonga/Ila. In subsistence terms, cattle were less important than agriculture, but the animals were always used as prestige goods in the ceremonial life of the cattle keeping peoples.

Everywhere, agriculture was complemented by hunting and gathering activities and, where possible, by fishing as well. To hunt was always a male prerogative, and sometimes the ceremonial aspect of this activity overshadowed its contribution to subsistence. Gathering and collecting activities, on the other hand, were far less glamorous and were carried out by women. The exception was the collection of honey which was on the one hand considered dangerous and on the other hand provided one of the most important inputs for beer brewing.

In spite of all these supplementary activities — gathering of large quantities of mushrooms, fruits, caterpillars, ants and other edible insects — the economic system of many of the Zambian tribes was not always able to fend off hunger, even though there were seasonal surpluses in excess of subsistence requirements. Storage in a tropical climate was difficult with the technology that these groups had at their disposal.

3 Allan (1965), pp. 66 ff.
4 See Herskovits (1926), for a classic account of this.
5 For a case study from Western Province, see Silow (1976).
6 Richards (1939), pp. 35 ff.
7 This is one of the characteristics of primitive economies. (Cf. Forde & Douglas (1956).)
Agriculture during the Colonial Period

When the first European settlers came to the North East and North West Rhodesias, as present day Zambia was called, around the turn of the century, they came with the anticipation that they would create large white rural communities and a flourishing European agriculture. They brought new crops to the country: tobacco and improved varieties of corn. Of even greater importance, from the point of view of the indigenous peoples, was the fact that the European administration, which was handled by the British South Africa Company up to 1924, both acknowledged the need for white settlement and encouraged it.

In this way, large portions of agricultural land were given to the white settler communities. The colony was divided into two basic categories of areas: European (later Crown) land and African reserves, on the basis of exclusive use by these two categories, respectively. The regions most affected by this land alienation process were the southern, central and eastern parts of the country. The former two became part of the structure known as the line of rail, a comparatively narrow stretch of land along the Katanga-Copperbelt-Southern Rhodesia railroad (cf. Figure 3.1), where nature provided not only good farmland in the south but in addition, considerable mining possibilities in the central parts. With the exception of the Crown land in the east, the line of rail, including the Copperbelt, more or less monopolized government and corporate resources. The land reserved for the Europeans was already among the best in the country and with the development of government services and infrastructure, the disparities between the European and African areas were with a few exceptions neglected by the administration. Occasional bans on chitemene were declared. The explicit purpose was often to increase the supply of African labor to the European community.

Together with land alienation, this created intolerable conditions in many reserves. In Eastern Province, for example, almost fifty percent of the land was allocated to the Europeans, to

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8 Gann (1958), pp. 115 ff.
9 Hall (1965), pp. 103 ff.
ensure future expansion of white farming.\textsuperscript{12} The result was devastating for the Africans. In some areas, the population density increased to well over 100 persons per square mile who had to support themselves on poor soils with an agricultural system and a cattle herding economy which allowed a maximum carrying of less than 22 persons per square mile.\textsuperscript{13}

This type of situation, in combination with the colonial policy of enforcing a regrouping and concentration of African villages, had as its ultimate consequence a dramatic decrease in African agricultural production with concomitant malnutrition and a rapid increase in the rate of erosion.\textsuperscript{14}

\textsuperscript{12} Kay (1967:1), p. 16.
\textsuperscript{13} Ibid., pp. 21 ff.
\textsuperscript{14} Kay (1967:2).
The anticipated influx of white settlers never materialized. In 1921, there were only 504 white settler families in Zambia, and this figure never managed to rise to more than 1,300, in 1964. Thus, the vast unoccupied lands reserved for European settlers (in 1938 more than 50 percent of the colony) rapidly reverted into bush vegetation and even started to attract the tsetse fly.\textsuperscript{15} It took until the 1940s before this destruction became apparent to the colonial administration. In 1947, considerable portions of the unsettled land were returned to the African population.\textsuperscript{16} By that time, however, much of the natural and human resources of Northern Rhodesia had been wasted for generations.

In spite of this many Africans proved to be competitive. A small ambitious elite had at an early stage adopted new techniques, mainly the ox-drawn plow and cart in those areas where European farming had gained momentum.\textsuperscript{17} After a period of time, the indigenous farmers actually started to compete eagerly in the national market, particularly in corn and livestock, in such a way that the white settlers were faced with overproduction and lower prices. In 1938, Europeans marketed some 290,000 bags of corn while African producers officially marketed as much as 250,000 bags.\textsuperscript{18} In order to check this development, with its potentially disastrous results for the settlers, an ordinance had been introduced two years before (1936) establishing the Grain Marketing Board which was empowered to make 'certain deductions' from the final prices paid to products purchased from an African producer. Not only did the Africans generally receive lower prices for their corn than the Europeans, but other internal price differences were introduced as well (mainly in Southern Province) where so-called improved African farmers received better prices for their produce than 'unimproved' farmers. The money thus withheld was to be put into a fund for price stabilization and erosion control in the reserves.\textsuperscript{19} Despite these obstacles the African share of the corn market (in value terms) was 46 percent in 1954. Subsequently, the figure dropped to a mere 26 percent (in 1963).\textsuperscript{20}

\textsuperscript{15} Ray (1979), p. 123.
\textsuperscript{16} Kay (1967:1), pp. 26 ff.
\textsuperscript{17} This development was especially important in the Southern and Eastern Provinces. (Cf. ibid., 39 ff., and Allan et al. (1945).)
\textsuperscript{19} Chileshe (1981), pp. 87 ff.
\textsuperscript{20} Ray (1979), p. 82.
Though the African share of national corn production stagnated at the time of independence in 1964, it was estimated that some 10,000 indigenous farm households were engaged in marketing corn, groundnuts, livestock, etc., on the official market. The estimated 300,000 so-called subsistence households, living mainly in the peripheral Provinces, were not officially recognized as producers for the market. However, with the high rate of urbanization and migration, which escalated at the end of the pre-independence period, the development of the large townships along the line of rail and the more peripherally located Province and District administrative centers, new non-official trades and local markets were created.

The Post-Independence Period

After independence, in 1964, large-scale commercial farming was also opened to Africans, although European farmers continued to predominate in national agricultural production. The official goal has been to create a substantial group of large-scale African farmers in order to minimize the dependence on foreign resources. The policy towards small farmers has been an ambivalent one and has varied abruptly, from negligence to short-lived attempts with mechanized cooperative farming and lately to an emphasis on family farming with ox-drawn equipment. Nevertheless, the Third National Development Plan (1979-83) places a greater emphasis on the middle-sized than on the small farmers.

The official negligence of the ‘traditional crops’ grown by small farmers, which had been characteristic of the colonial administration, has continued after independence. The strong emphasis on corn production has also been maintained. However, for a considerable time corn prices were kept below the world market level, which in fact imposed a heavy tax on the farmers. The rural-urban terms-of-trade have moved against the farmers during the 1960s and the 1970s, causing a loss of purchasing power in the countryside. The crop pricing policy has undoubtedly contributed to the relatively poor performance of Zambian agriculture in the post-independence period.

21 Ibid.
24 See e.g. Dodge (1977), pp. 133-34, and Fry (1979), pp. 73-75.
Two interrelated patterns have dominated post-independence, small-scale farming: the increasing number of small-scale producers and a rapid rural stratification process. A recent study by Alan Marter and David Honeybone has shown that there has existed a very clear correlation between economic affluence and intensity of corn growing. Even in the most remote areas, where cassava, millet and sorghum are the traditional staples, as many as two-thirds of all households were growing corn, even though 17 percent were actually selling the crop, compared to 65 percent in the 'more favored' areas, i.e. those close to the line of rail.26

In present-day Zambian agriculture, the chitemene system continues to have an important role to play, although in a considerably modified form. Increased population pressure and administrative control has made shifting agriculture difficult. The farming population no longer moves from place to place as the fertility of the soil declines. Cultivation has become semi-permanent and the length of the fallow periods has decreased drastically.

Furthermore, the influence of the market economy must also be taken into account. Cash crops, like corn and tobacco, have assumed an ever-increasing importance, while traditional subsistence crops, like millet, have to a corresponding extent been pushed into the background. Today, one seldom finds rural households without any cash income at all. In the chapters that follow, we will provide examples of the economic and social stratification that has resulted from unequal success in commercial farming and also, in this context, show how the situation of the women has often become more precarious. First, however, we must introduce what is the most pervasive change in rural life during the present century: migration to urban districts.27

The Role of Migration
To understand the emerging rural production pattern, the relations between urban and rural areas, the development of more or less 'favored' areas and the concomitant regional stratification, we must focus on what is perhaps the most conspicuous of all social processes in the formation of Zambian society, that of labor

26 Marter & Honeybone (1976), pp. 64 ff.
27 For an overview of contemporary agriculture, see ibid. and ILO/JASPA (1980:1) and (1980:2).
migration. Helmut Heiser’s characterization of the central administration both before and after independence as ‘governments of migration’ is certainly a very good one, considering the tremendous importance migration and urbanization have had for the demographic and economic structure of the country.

The phenomenon of migrant labor developed soon after the arrival of the Europeans, even before the introduction of taxation and the necessity to earn cash. By 1900, in the earliest period of colonization, men from north of the Zambezi had begun to cross the river on seasonal migration to Southern Rhodesia or the gold and diamond fields in South Africa. Another flow of migrants left for the Katanga. However, with the arrival of the railway, the establishment of Livingstone as the administrative center in 1905 and the influx of white farmers, a pattern emerged where migrations were directed both towards foreign and domestic centers. The British South Africa Company employed hut taxes as a means for increasing the supply of labor to the European parts of the economy. In addition, labor recruitment agencies were established, and in 1899, a Native Labour Bureau was made responsible for recruiting policies. Finally, the company held back investments in certain areas from which it wanted to recruit labor.

A large domestic boom was initiated in 1929, when the large-scale copper mines started to operate in what is now known as the Copperbelt, an area characterized by large towns, commercial centers and a great need for labor. In 1935, the capital was moved to Lusaka in order to lessen the distance to the important mining industry. By that time, migration and, to some extent, the more permanent type of urbanization, had reached considerable proportions. In 1938, there were a number of Districts with well over 50 percent of the adult male population being away on wage labor. Wage employment among Africans rose quickly, from 80,000 in 1931, to 140,000 in 1946.

Different regional patterns emerged regarding the intensity and the direction of the migration. During the 1930s, migration

30 Gann (1958), pp. 68 ff.
31 Bates (1976), pp. 43-44.
33 Hellen (1968), pp. 96 ff.
34 Bates (1976), p. 46.
abroad decreased considerably because of political barriers and increasing opportunities in the Copperbelt and the line of rail. However, until independence, the old migration routes by and large persisted. In 1961, there were an approximate total of 545,000 taxable males in Northern Rhodesia of whom some 300,000 were in wage employment. Almost 20 percent of this labor force still had to work outside the colony. The greatest number, 8.5 percent, were working in Southern Rhodesia (mainly people from the eastern, southern and western areas), some 3.5 percent in South Africa (from the western and eastern areas), and some 3 percent in the Congo (mainly from the western and northwestern parts of the country). The overwhelming majority of the migrants in the colony traveled, however, to the Copperbelt and the mines. What started as an extremely uneven distribution of migration intensity and wage employment had by the end of the 1950s become more regionally uniform. Nevertheless, in 1961, the rate of wage employment varied from 63 percent of all taxable males in Eastern Province, to 41 percent for all adult males from Southern Province, the vast majority of these men being absent from their homes, wives and families.

The reasons for this migration are well reflected in the data and analyses from the colonial period. Migration was selective in terms of age and sex. Mainly younger men in their best working age migrated while the population left behind in the countryside displayed a higher incidence of children, old people and females. The migrants were generally better educated than those remaining in the villages. Travel costs were obviously of importance in deciding the distance that the migrants were prepared to move in their search for better incomes. Given an equal urban wage, the closer urban location was preferred. Finally, the prosperity of the rural area from where the migrants came was of some importance. If prosperity increased, out-migration was reduced.

After Zambia’s independence in 1964, the towns along the line of rail were filled with job-seeking migrants and people prepared to settle for good in the towns. The sharp increase in the number of immigrants, including a considerably higher proportion of women, was the result of the abolition of the urban residence permit for Africans, who were previously forced to have a

35 Hellen (1968), pp. 98 ff.
36 Ibid., p. 97.
37 The evidence is summarized by Bates (1976), pp. 46-54.
job prior to taking up urban residence. The Unilateral Declaration of Independence by Southern Rhodesia in 1965 and the cancellation of the Witwatersrand Native Labour Association (WNLA) agreement with South Africa in 1966 further reduced the alternative opportunities available to labor.\textsuperscript{38} From 1963 to 1969, Lusaka town increased by 97 percent and the two largest towns in the Copperbelt by 53 and 75 percent respectively, figures which show the extraordinary quantitative dimension of the migration process.\textsuperscript{39}

Today, some 60 percent of Zambia’s population of 5.6 million live along the line of rail. More than two million live more or less permanently in the larger towns.\textsuperscript{40} Table 3.1 gives an approximate idea of the development from the early sixties to the mid-eighties. Over a period of twenty years, the urban share of the population has more than doubled.

\begin{table}[h]
\centering
\begin{tabular}{lcccc}
\hline
\textbf{Year} & \textbf{Total Population} & \textbf{Rural Population} & \textbf{Urban Population} & \textbf{Percentage of Population in Urban Areas} \\
& (thousand) & (thousand) & (thousand) & \\
\hline
1963 & 3,489 & 2,774 & 715 & 20.5 \\
1969 & 4,057 & 2,865 & 1,192 & 29.4 \\
1974 & 4,695 & 3,039 & 1,656 & 35.3 \\
1976 \textsuperscript{1)} & 5,041 & 3,160 & 1,881 & 37.3 \\
1984 \textsuperscript{1)} & 6,440 & 3,532 & 2,908 & 45.2 \\
\hline
\end{tabular}
\caption{Urban and Rural Populations 1963-84}
\end{table}

\textsuperscript{1)} projection


Much the same economic factors, i.e. earnings differentials, are behind migration today as during the colonial period. However, the extent of family separation as a result of migration has now decreased. Women and children follow the men to town. Migration has hereby acquired a more permanent character. In the mid-seventies, few people were returning to the villages, e.g. upon retirement, and relatively less money than before was remitted

\textsuperscript{39} Jackman (1973), p. 12.
\textsuperscript{40} Monthly Digest of Statistics (1980), pp. 2-3.
back to rural areas. The increasing urbanization has not taken place without problems:

The most obvious sign by far of the influx into the cities is the growth of sprawling shanty towns around almost every urban complex in the country but particularly around Lusaka. Over the period 1967 to 1970 the number of such shanty towns or 'squatter villages' in the Lusaka area grew from 9 to 32, accommodating over one-third of the population of the city, i.e. 100,000 out of about 270,000.

This tendency is even more pronounced today than when the above was written, a decade ago. In addition, as Table 3.2 shows, the heavy inflow has created increasing employment problems, since employment in the formal sector has not been able to keep up with the size of the urban labor force. Between 1975 and 1979, formal employment in the cities fell by 21,000 people. The burden of absorbing the shortfall to an increasing extent falls on the informal sector.

Table 3.2 Urban African Labor and Formal Sector Employment

<table>
<thead>
<tr>
<th>Year</th>
<th>Labor Force (thousand)</th>
<th>Employment (thousand)</th>
<th>Shortfall (thousand)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1969</td>
<td>370</td>
<td>327</td>
<td>43</td>
</tr>
<tr>
<td>1974</td>
<td>522</td>
<td>353</td>
<td>169</td>
</tr>
<tr>
<td>1976</td>
<td>596</td>
<td>334</td>
<td>262</td>
</tr>
</tbody>
</table>


Conclusions

The traditional Zambian agricultural system built mainly on the use of extensive slash-and-burn techniques, known as chitemene. The population cultivated a plot as long as the soil fertility was satisfactory and subsequently, when fertility fell, moved on to

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41 Bates (1976), Chapter 8.
42 Simmance (1972), p. 28.
other lands. When the Europeans arrived, the area at the disposal of the Africans was gradually reduced, since some of the best parts of Zambian land were reserved for the use of whites. The pressure on land increased in the African reserves. However, the Africans turned out to be quite competitive in the commercially oriented agriculture which developed at the same time. To curb the competition of the Africans, the colonial power proceeded to regulate marketing. However, after independence in 1964, these practices were changed. Today, the traditional method of cultivation continues to be important, although a number of modifications, emanating from the influence of the Europeans and the cash economy, have been introduced.

The most important change in rural areas during the present century is out-migration. Gradually, the younger males, subsequently (during the post-independence period) followed by females and children as well, have moved into urban areas in search of wage employment. Today, Zambia is heading towards a situation where the population is, by and large, equally distributed between rural and urban areas.
In 1972 an Intensive Development Zone (IDZ) program was started in Eastern Province in Zambia with particular concentration on Chipata District. The program was sponsored jointly by the Zambian Government and the Swedish International Development Agency (SIDA). The focus was on the development of the basic infrastructure, on the qualitative and quantitative improvement of agricultural production and on the creation of agricultural services. This was to be achieved through an increase in capital and planning expertise in the region. The expected result was a rise in agricultural incomes(1)

However, like many other rural development programs in post-independence Zambia, the Eastern Province IDZ faced a number of difficulties. Coordination between the various government agencies involved proved to be increasingly complicated. A centralistic decision structure in combination with delays in fund payments made the implementation of planned farmers’ service programs rather erratic. Thus, emphasis was soon placed on safe and conspicuous projects like construction, farmer training centers and roads – none of which had much of an impact on agricultural incomes, and particularly not on the incomes of the poorer segments of the rural population.2

In order to provide background data to assist the planners of the IDZ program, an ambitious survey was carried out in two of the twenty-four Chief Areas of Chipata District: those of Chief Chikuwe and Chief Sayiri (see Figure 4.1). The objective was to collect general baseline data, especially on agricultural production, to be used later in the process of evaluating the impact of the program. It was also hoped that the material gathered would

1 See Apedale et al. (1972) and Republic of Zambia (1971).
Figure 4.1 Location of Chipata District, Chikuwe and Sayiri

REPUBLIC OF ZAMBIA
be useful directly for planning purposes. The survey, which was carried out between 1973 and 1974, covered all 1,871 household units in the two areas.³

In the present chapter, we will make use of some of the survey data, supplemented with data from other studies and reports from the two areas as well as personal observations⁴ to describe one particular aspect of the rural economy of Chipata District — that of out-migration, seen in a historical perspective. In Chapter 5, we will go on to analyze its determinants and its repercussions on the rural economy. In this way it should be possible to shed some light on what takes place in the ‘traditional’ sector of a dualistic economy when labor moves from there to the ‘modern’ sector.

The Migration History of the Area

Migration has a long history in Chipata District. Out-migration in search of wage employment developed on a small scale as a consequence of a number of simultaneous changes, all emanating from the beginning of British control of the area, starting in 1896, when the North Charterland Exploration Company was formed to exploit an area of 10,000 square miles in Chipata District that had been bought by an European adventurer from the famous Ngoni chief Mpezeni. New trading opportunities and offers from foreign labor recruitment agents in conjunction with a major punitive expedition and wholesale livestock confiscation from the Ngoni undertaken by the British (caused by the alleged murder of two Europeans) laid the foundation for out-migration.⁵ By 1898, 650 of the now impoverished Ngoni pastoralists, mainly from Chipata District, were recruited to the Mashonaland police service in Southern Rhodesia, and soon a considerable portion of the police and labor force in the gold mines of Southern Rhodesia consisted of men from Eastern Province.⁶ However, the real migration boom began mainly as a direct consequence of the imposition of a poll tax in 1901, which was controlled by the

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³ No use was made of the survey data until 1977-78 when a written report on some of the main results was compiled. See Hedlund (1980).
⁴ Hans Hedlund worked as a social anthropologist in Zambia between 1974 and 1978; 1974-76 at the IDZ and 1976-78 as a research fellow at the University of Zambia.
North Charterland Exploration Company (which by then had the concession of the major part of the Province) and which could be paid either directly in cash or by work in the European sector of the economy.7

From the beginning of British control, migration mainly took place within the Province. Its main purpose was temporary work for the administration or for the newly arrived European settlers. By 1907, there were thirty settler farms in the District, and by the 1927-28 season, there were already some 160 settlers around Chipata (then called Fort Jameson), who had been attracted to the area because of good soils, high prices for tobacco and a developing tobacco industry in the area. 8 Wage employment increased rapidly in the District during this period, but the waves of migration outside the Province had also gained momentum.

During the twenties, the duration of wage employment gradually increased. At first, duration had been comparatively short, some three to four months. The push in the form of a poll tax provided an incentive that was just sufficient to pay the tax.9 Quite probably, the individual’s supply curve of wage labor was backward-bending. The very purpose of wage employment was to raise cash for paying the tax. Consequently, a wage increase meant that a given tax could be paid with a smaller amount of work.10

After a period of time, however, the labor supply curve assumed a ‘normal’ shape.11 The push emanating from the over-

8 Hellen (1968), pp. 174 ff.
11 Robert Baldwin (1966), Chapter 5, taking the evidence presented by Berg (1961) ‘that most Africans, until recently were target workers’ (Baldwin (1966), p. 121) as his point of departure, investigated whether the copper industry from the thirties to the late fifties was characterized by backward-bending individual supply curves for labor. His conclusion was that ‘The relationship in which there was most interest, that between real earnings and length of service,... was not significant. Factors other than real earnings were more important in causing changes in lengths of service in the copper industry over the period analyzed. The data do leave much to be desired, particularly in the thirties and early forties, but until additional, more discriminating data are obtained, this is the only conclusion possible.’ (Ibid., p. 130.)
Out-Migration in Chipata District

crowded and eroded reserves — the small pieces of land on which the African population was forced to live in the District — and the pull from the Rhodesian and the South African mining industry, as well as from the rapidly developing narrow strip alongside the railway connecting Southern Rhodesia with the Northern Rhodesian coppermines — made the exodus quantitatively more important and also increased the duration of the work periods in the cash sector inside and outside the country. In a 1951 report, the administration estimated that 59 percent of all taxable males in the District had left their homes for wage employment. Of these migrants some 38 percent had remained within the Province, while as many as 26 percent had traveled to Southern Rhodesia and some 10 percent to South Africa.\(^\text{12}\)

If economic considerations were at the heart of the out-migration process, they were also in the long run related to social considerations. With the savings accumulated from wage labor, young men managed to acquire livestock earlier than had previously been possible. This in turn made it possible to marry at a younger age and even to obtain sufficient wealth and prestige to compete with the older generation for influence in the community.\(^\text{15}\) In some areas, this increasing competition for prestige and influence between the older and the younger generation, together with the ideological underpinning that came from the European agents, developed the rationale that “undertaking a journey to a distant labour centre is a test of manhood which fills in one of the gaps left by the decay of tribal initiation.”\(^\text{14}\) Thus, migration did not only cause the decay of fundamental social institutions, but also created new, sometimes complementary, ones. New values and roles developed alongside the increasing economic and social strains between the generations and sexes — reflected in increased social and ideological tensions and manifested in numerous accusations of witchcraft and sorcery related to authority, prestige, ownership and other questions of fundamental social importance.\(^\text{15}\)

The post-independence period (after 1964) presents a somewhat different pattern. According to census figures, the national

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12 Marwick (1965), p. 49.
13 Ibid., pp. 41 ff.
14 Ibid., p. 51. This is an ideological development which has been documented for a number of other migrant groups as well. Cf. e.g. Richards (1939) and Harris (1959).
rate of population growth between the two census years 1963 and 1969 was 2.5 percent per annum. Assuming this rate to be true for Chipata District as well, Mary Jackman has calculated the annual rate of out-migration from Chipata to be 1.2 percent during that period.\(^{16}\) The composition of migration has changed after independence. During the pre-independence period, the migrants consisted almost exclusively of adult males who left in order to find wage employment. Wives and families, invariably, followed on behind, in a secondary movement. However, much of this migration was only temporary. Before independence, Africans were not allowed to stay permanently in urban areas unless they possessed a pass and a residence permit (requiring a job). Today, the tendency is for migration to be of a more permanent nature, which increases the rate of urbanization. In this process, the females, especially those who have managed to acquire some educational background, participate much more actively than before in the primary movements. Nevertheless, males continue to dominate the migratory currents. In 1963, Chipata District had some 89 males per 100 females. Six years later, the figure was slightly lower, 87 per 100.\(^{17}\) Finally, the geographical focus of migration has undergone a change. When Zambia became an independent nation, the borders to South Africa and Rhodesia were closed.\(^{18}\) As a result, the out-migration from Chipata District was largely redirected towards the urban agglomerations situated along the line of rail. The migrants gradually settled along the migration route. This process is illustrated in Figure 4.2, which shows how the number of migrants moving from Lundazi District, north of Chipata, towards the Copperbelt decreases as the stream of migrants approaches the latter.

There is a general tendency among rural people to move as far as the line of rail, but not beyond. This is not so hard to understand, since all the major Zambian towns are located there. By comparison, other urban areas exert only a minor pull. Of all the migrants from Eastern Province (i.e. including not only Chipata but Lundazi and Petauke Districts as well), 44 percent moved to

\(^{16}\) If a slightly higher rate of natural population growth, 2.7 percent, is assumed, the annual rate of out-migration becomes 1.25 percent. (Cf. Jackman (1973), pp. 3-9, Cox et al. (1972), pp. 41 ff.)

\(^{17}\) Jackman (1973) p. 17.

\(^{18}\) The border to Zimbabwe was reopened in 1980.
the central railway region, and 29 to the northern one — altogether 73 percent.\textsuperscript{19} Migration frequently takes place in steps. Jackman has suggested that the rural townships may act as 'staging posts' in the migration towards the larger towns.\textsuperscript{20} People often move first to the former and then remigrate to larger urban clusters.

The past and present migration patterns are clearly reflected in the composition of the population remaining in the two survey areas, Chikuwe and Sayiri. Today, it is virtually impossible to

\textsuperscript{19} Jackman (1973), p. 35.
\textsuperscript{20} Ibid., p. 26.
find an adult male over thirty years of age in either area who has not worked for a considerable period of his life in Chipata Township or, more commonly, in Lusaka or in the Copperbelt. Among the older age groups, it is found that a substantial number of the older males have also spent a long period in Rhodesia or South Africa — at times as much as fifteen to twenty years.

Table 4.1  
Distribution of Age of Head of Household in Chikuwe and Sayiri, 1973-74

<table>
<thead>
<tr>
<th>Age(years)</th>
<th>21-30</th>
<th>31-40</th>
<th>41-50</th>
<th>51-</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>249</td>
<td>426</td>
<td>615</td>
<td>578</td>
<td>1868</td>
</tr>
<tr>
<td>% of total</td>
<td>13.3</td>
<td>22.8</td>
<td>32.9</td>
<td>31.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The pattern is seen in Tables 4.1 and 4.2, showing the age and sex distributions of the heads of households in Chikuwe and Sayiri in 1973-74. In Table 4.1 (age distribution), the age of fifty has been used as the dividing line. After that age we know that both the productive capacity of the individual and his/her interest in agriculture declines fairly rapidly.21 The table shows that as many as one-third of the heads of households were above that age while the 21-40 age group only accounted for slightly more.

Table 4.2  
Sex of Head of Household in Chikuwe and Sayiri, 1973-74

<table>
<thead>
<tr>
<th>Sex</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>1,302</td>
<td>567</td>
<td>1,869</td>
</tr>
<tr>
<td>% of total</td>
<td>69.7</td>
<td>30.3</td>
<td>100.0</td>
</tr>
</tbody>
</table>

In addition, as shown by Table 4.2, around thirty percent of all household heads were females. Thus, in spite of increased female participation on migration, it is still quite probable that it is mainly the younger males who migrate out of the two areas.

21 If social circumstances permit, both males and females, tend increasingly to participate in social and ceremonial life in order to establish or confirm their social prestige, thus exercising their rights of seniority to claim gifts and assistance from the households of their married children.
Table 4.3  Population Structure According to Age and Sex, 1969

<table>
<thead>
<tr>
<th>Age group</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 15</td>
<td>49.3</td>
<td>41.7</td>
</tr>
<tr>
<td>15-45</td>
<td>33.2</td>
<td>41.9</td>
</tr>
<tr>
<td>45 and older</td>
<td>17.5</td>
<td>16.4</td>
</tr>
</tbody>
</table>

Source: Cox et al. (1972), p. 37.

These tendencies are also illustrated in Tables 4.3 and 4.4. Table 4.3 shows a marked difference in the age distribution of the two sexes in rural areas in Chipata District, with men in productive age being conspicuously absent. Table 4.4 compares rural Chipata with Chipata Township and with the national average. It is clearly seen that as we move from the rural area to the town, the relative frequency of males increases strongly. The table also shows that even Chipata Township is below the national average as far as the men/women ratio is concerned.

Table 4.4  Number of Men per 1,000 Women, 1969

<table>
<thead>
<tr>
<th>Sex Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chipata rural</td>
</tr>
<tr>
<td>Chipata Town</td>
</tr>
<tr>
<td>Zambia</td>
</tr>
</tbody>
</table>

Source: Cox et al. (1972), p. 41.

Conclusions
Migration is a long-standing phenomenon in Chipata District. It started already before the turn of the century and received a strong impetus a few years later, when a poll tax was introduced by the British. Gradually, the distances traveled were extended with many migrants going all the way to Southern Rhodesia and South Africa.
Most of the early migration was of short duration. Presumably, the individual's supply curve of labor was backward-bending, since the purpose of migration was to gather enough cash to pay the poll tax. However, as the African reserves became more crowded and as the mining industry, not only in Northern Rhodesia, but also in South Africa, expanded, the duration of migration increased. Account was also taken of a number of social considerations.

During the post-independence period, the character of migration has changed. Today, a large number of women and entire families move, whereas it used to be the unmarried males who were the principal migrant group. Urbanization is becoming increasingly permanent. Nevertheless, the younger males continue to dominate the migration flows, leaving many households in rural Chipata with female heads.
Chapter 4 presented the main features of the out-migration from Chipata District. We will now go on and take a look at the probable causes and effects of this migration, beginning with the former.

The Causes of Migration
The decision to migrate, as seen from the point of view of the prospective migrants, is a complex one. This complexity is shown in Figure 5.1, which illustrates the main institutional and individual determinants of the migration decision. However, we will not deal here with all of the details in the figure but instead concentrate on the most important features, viz. the difference between rural and urban incomes, the pecuniary costs of migration, and the psychic costs and benefits.

The pecuniary aspects of out-migration from Chipata District can be explained fairly straightforwardly in terms of the standard Harris-Todaro model which was presented in Chapter 2 – a model which was constructed especially in order to explain the movement from country to town in tropical Africa. The central feature of this model is that when the expected real wage in the urban sector of the economy exceeds the real wage in agriculture and migration is costless, migration from rural to urban districts will take place until the equilibrium between urban and rural earnings is re-established:

\[ M = M \left( w^u \frac{E^u}{L^u} - w^a \right). \] (5.1)

The expected urban wage is arrived at by weighting the urban wage with the proportion of the urban labor force that is actual-

1 Harris & Todaro (1970).
ly employed (EU/Lu). Provided that those who cultivate the land do not only receive a remuneration for their labor but in addition capture the land rent component, the rural wage rate has to be interpreted in a wide sense, as being synonymous with rural incomes.

This model may be applied to Zambia. In the Chipata case, the estimated ratio between the annual income of farmers in the two Chief Areas and the average urban wage was one to five around 1970, somewhat lower than the national average of one to seven. Disregarding all migration costs (psychic as well as monetary), this should mean that with M(0) = 0, it would take an urban unemployment rate of 80 percent to curb the inflow from Chipata District. (For lack of information, we disregard the fact

that the probability that the migrant gets a job may not be equal to the average probability of getting an urban job.) In practice, however, urban unemployment was much lower around 1970. In Lusaka, only 22 percent of the labor force was openly unemployed in 1969, and the rate of wage employment, which is the figure most relevant for the Harris-Todaro model, was over 76 percent for men and 22 for women. Surveys of different townships for the 1966-74 period also give much lower estimates of open urban unemployment than 80 percent: 14-15 percent with generally some 70-90 percent of the labor force in wage employment.3

Thus, it is not hard to understand the scramble for urban jobs. Wage employment opportunities that could be used to supplement the meager incomes from agriculture are both scarce and badly paid in the villages. In addition, commodities consumed by the masses, unless produced on the spot, are often much more expensive in rural areas, if available at all, and social services and amenities are either poor or non-existent.

Migration frequently represents a means of accumulating money for a specific goal or obligation, as exemplified by the pecuniary transactions involved in marriage.4 These sometimes amount to a cash equivalent of more than 200 Kwacha in the Sayiri area, although they seldom exceed 100 Kwacha in Chikuwe. This difference is due to differences in the character of the marriage payments between the two areas. The payments of the Chewa people of the Chikuwe area associated with uxorilocal marriage (gradually developing into virilocal or neolocal residence) only give a man limited rights over the children born, who are members of their mother’s matrilineage.5 Marriage payments and the later payment of lobola among the Ngoni of Sayiri, on the other hand, with their virilocal marriage, transfer the

3 Fry (1979), pp. 56-59.
4 In this case there should be a tendency for the individual supply curve of labor to be backward-bending.
5 The matrilineage is an exogamous descent group in which a child belongs to his/her mother’s kin, whereas in a patrilineage an individual belongs to his/her father’s kin group. Uxorilocality means that a married couple resides with the wife’s kin, virilocality that they live with the husband’s kin and neolocality that they can choose to live at any place they prefer, not only among close kinsmen.
woman's childbearing capacity and subsequently, her children to
the husband and his kin.\textsuperscript{6} In both cases, however, the marriage
payments represent a considerable outlay which is absolutely
necessary from the social point of view. Migration and wage em-
ployment help to secure the resources needed to fulfil this obliga-
tion.

Monetary and psychic costs of migration must also be taken
into account. Beginning with the former, the most patent cost
is related to transport. Jackman, in her analysis of the 1969 cen-
sus data, found only a low correlation between sheer physical
distance and migration.\textsuperscript{7} She ranked Districts (for the entire
country) according to their distance from the urban clusters
along the rail network on the one hand, and according to the re-
relative migration from each District on the other. However, she
obtained a correlation of only 0.06 (Spearman's rank correlation
coefficient). Thus, 'pure' distance turned out to be of virtually
no significance at all. A somewhat refined concept of distance —
in terms of 'accessibility' where roads were classified according
to whether they were tarred, main dirt roads or minor dirt roads
— gave a higher correlation: 0.40, which showed that transport
considerations have not been without importance for the deter-
mination of the place of destination.

Turning to the psychic costs of migration, the existence of
different languages and customs may to some extent be respon-
sible for the pattern of migration from Chipata. Especially at
earlier stages, these may both have acted as deterrents to migra-
tion, but as the towns have grown in size and cultural links have
been established, these obstacles have been gradually removed.
Returning migrants from Districts close to the railway dissemi-
nated information regarding urban life which helped to facilitate
the process of migration. As more people moved from Chipata,
the probability of finding someone speaking Chinyanja increased.
The latter factor is well illustrated in Lusaka, where by the time
of independence, Chinyanja has emerged as the major African
\textit{lingua franca}.

There are, however, not only psychic costs, but also \textit{benefits}
of a corresponding type associated with moving to town. Migrat-
on is a mode of escaping internal social and economic conflicts
within the rural environment. These frequently emerge as a result

\textsuperscript{6} See Marwick (1965), pp. 169 ff., for a discussion of marriage and bride-
wealth.

\textsuperscript{7} Jackman (1973), pp. 42 ff.
of adultery, theft, political dissension, etc, in small villages where social control is stern and where nobody is anonymous. (Migration often creates new conflicts for those who remain in rural areas. This gives migration a cumulative social momentum.)

The Consequences of Out-Migration
In Chapter 2, we surveyed a number of analytical models which could be used to deduce the effects of out-migration from rural areas on the welfare of the population that remained behind. Unfortunately, this survey did not provide any clear-cut answer to the question whether we should expect the welfare of this group to rise or fall. Depending on how the model in question is specified, positive effects may outweigh negative ones or vice versa. We will now proceed to choose between these models, to find the one which best depicts the economy of rural Chipata.

We may begin by ruling out the one-good models. These models are too simple in that they do not allow us to deal with the effects of possible changes in output composition and commodity prices, caused by migration. This leaves the two-good models. In the context of Chipata, this entails a choice between models of a closed economy and models which allow for trade with the outside world. Once again, the choice is an easy one. Rural Chipata is engaged in trade relationships with other parts of Zambia. A closed economy model is therefore inappropriate.

The next problem is whether Chipata should be considered ‘large’ or ‘small’ in the context of a trade model, i.e. whether or not what happens in that District is of sufficient magnitude to influence commodity prices. It is clear that in the overall Zambian context the demand and supply emanating from rural Chipata is not sufficiently important to warrant a model treatment where the District can influence the terms on which it trades with other regions. On the other hand, it must be kept in mind that Zambia is an incompletely integrated country. There is not a single, nationwide market with a more or less uniform price for a given product. The reality is somewhere between these two extremes.

Fortunately, this does not create any problems. The main division in the commodity market is between cash and subsistence crops. The former (hybrid corn, cotton and tobacco) are sold via an official marketing system. In their case it is possible to speak of a relatively high degree of market integration on at least the
regional level. From the Chipata perspective, these are crops for which the prices are more or less given by outside forces. The other main category of agricultural produce is the more traditional subsistence crops, such as local varieties of corn, beans and groundnuts. This second category of crops is sold both on the official market and locally, which means that local variations in demand and supply also influence prices.

Both these features are incorporated in the model with one traded good (cash crops) and one non-traded (subsistence crops), briefly summarized in Chapter 2. The traded good is exchanged with the outside world at given terms of trade. In the present case, this should be interpreted to mean that the production of cash crops provides the Chipata farmers with an opportunity to purchase externally, e.g. manufactures of various kinds, at fixed prices or to consume the cash crops themselves.

We thus have access to what appears to be a reasonably realistic model of the economy of rural Chipata. Let us find out in some more detail what the effects of migration are in this model. This can be done with the aid of Figure 5.2.

Let the quantity of cash crops be measured along the vertical axis and that of subsistence crops along the horizontal axis. The pre-migration transformation curve of the rural economy (given the amounts of land and labor available) is given by TT. Production takes place at point A at relative commodity prices PP. This point also indicates the quantity of subsistence crops that are consumed in rural areas and the quantity of cash crops that are either consumed or traded for non-agricultural goods. When the migrants leave, whatever land they own remains in the countryside. Let us also assume that the migrants do not charge any rent in so far as they own any land which is tilled by those remaining behind, but that all the land is left to be used by the migrant's rural relatives without charge. We also need to know the relative factor intensities. On average, cash crops require more labor per unit of land than do subsistence crops: 995 man-hours per hectare for hybrid corn, 1,645 for cotton and 4,300 for tobacco against 610 man-hours for local corn, 875 for beans and 2,425 for groundnuts. Given this, migration shifts the transformation

8 Rivera-Batiz (1982).
9 Compiled from Heney (1973) and Jonsson (1977). These figures are the direct labor requirements only. If transportation to markets, transportation of inputs to the farmstead etc. are included the figures for commercial crops increase substantially.
curve inwards in the manner depicted in the figure, to $T'T'$. The shift is 'biased' against cash crops, the most labor intensive commodity, while the possibilities of growing subsistence crops, which are more dependent on land and less on labor, are less severely affected.

If the pre-migration price ratio PP had also prevailed in the post-migration situation, the post-migration output mix would have been the one given by point B. If we assume that neither the cultivation of cash crops nor the cultivation of subsistence goods is subject to economies of scale and that the only production factors employed are labor and land,\textsuperscript{10} the Rybczynski theorem may be applied.\textsuperscript{11} This theorem (applied to the present case) states that with linearly homogeneous production functions, a reduction in the supply of labor, at given relative commodity

\textsuperscript{10} Cf. Reynolds (1975), p. 4.
\textsuperscript{11} Rybczynski (1955).
prices, will lead to a lower level of output of the commodity employing labor intensively, i.e. commercial crops, while the output of the land-intensive commodity, subsistence crops, will increase.

The new transformation curve T'T' may also be interpreted as depicting what the non-migrants could have produced without the aid of the migrants. At the pre-migration price ratio PP their 'production' (hypothetically) would have been the one indicated by point B. If it is assumed that everybody in rural society has similar tastes and that these preferences are homothetic,12 so that income redistributions do not affect the composition of demand and neither good becomes inferior at any income level, a set of community indifference curves may be drawn such as those going through points A and D. The latter curve depicts the welfare level of the non-migrant population in the pre-migration situation. By 'exchanging' subsistence goods for cash crops with the migrants the non-migrants are able to consume at point D.

Once the migrants have left, this possibility no longer exists. The non-migrants are now restricted to choosing points on the post-migration transformation curve T'T'. The new consumption and production point will lie to the left of B (e.g. E). On the departure of the migrants, an excess supply of subsistence crops will arise. We know already that at given commodity prices the output of subsistence crops will rise (while that of cash crops falls). Point B, however, also represents a lower rural income than point A, being closer to the origin. The demand for both goods will fall in response to the decline in total rural income since neither of the two goods is inferior in consumption. The price of cash crops will not be affected, because cash crops are traded goods, but the price of subsistence crops will fall in terms of cash crops, since the supply of subsistence crops, for which local market conditions matter, now exceeds the demand for them. This takes the rural economy to some point like E, which is on a lower community indifference curve than D. The welfare of the non-migrants has fallen.

This statement must be interpreted in a 'collective' sense. Rural non-migrant society as a whole is worse off as a result of out-

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12 Both income elasticities of demand are equal to one. This may seem a restrictive assumption, but in the present context this is not the case. The reduction of total rural income is a result of the removal of a number of individuals. If the tastes of these individuals are similar to the tastes of those remaining in the countryside — a very reasonable assumption — both income elasticities should be close to one in the interval under consideration.
migration. All households are, however, not uniformly affected. *Ceteris paribus*, there is a tendency for those households who lose more members, and more productive members, to be affected more severely. It does not seem to be the case that the migrants support their rural relatives once they have moved to town. In all probability, the flow of remittances from urban areas is small. The survey undertaken by Marter and Honeybone in the mid-1970s indicated that the general pattern in Zambia, including Eastern Province, was

that only a few households receive contributions from relatives in urban areas and that the amount of money involved is small. In fact remittances are often notable by their absence as in the situation, often encountered, where married women are left unsupported by husbands who have moved to urban areas. Such contributions therefore have no appreciable influence on the income distribution between households.¹³

The rural households are left to live from whatever incomes they produce themselves. Here, the households from which heavy out-migration has taken place are at a disadvantage — especially those lacking able-bodied males. At the time of the survey, some 50 percent of all farmers in the entire Chipata District sold some of their output to an official marketing depot. As Table 5.1 illustrates, there was a difference between the two survey areas according to the sex of the head of the household as to whether farming was on a commercial (any sales at all to the marketing depots) or subsistence (selling only locally) basis. (The largest

<table>
<thead>
<tr>
<th>Sex of head of farm household</th>
<th>Commercial</th>
<th>Subsistence</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>625 (48%)</td>
<td>677 (52%)</td>
<td>1,302 (100%)</td>
</tr>
<tr>
<td>Female</td>
<td>232 (41%)</td>
<td>335 (59%)</td>
<td>567 (100%)</td>
</tr>
</tbody>
</table>

¹³ Marter & Honeybone (1976), pp. 40-41.
proportion of the households growing cash crops are found among those with male heads between 41 and 50 years of age, who have a comparatively long farming experience, control over a large labor force and a wider range of farming implements than most other household categories.)

Thus, fewer of the households with female heads are able to produce any of the purely commercial crops. This is a direct consequence of the labor constraint. There are in principle two different explanations for the fact that the households who suffer most from the labor constraint concentrate on the subsistence crops. The first reason is easily understood with the aid of Figure 5.3. This figure compares the households with different (given) factor endowments. These two households face the same relative commodity prices, PP. (As before we are dealing with cash crops and subsistence crops.) The difference between them is that one has lost more manpower through migration than the other. With the resources at its disposal it can produce the combinations of cash and subsistence crops given by the 'inner' transformation curve, i.e. comparatively little of the labor-intensive cash crops. The other household, which is assumed to command more resources, above all more labor, can produce along the 'outer' transformation curve. At given relative commodity prices, the two households will choose different output mixes. The household lacking labor will concentrate heavily on subsistence crops, while the other household is able to produce more cash crops. The latter tendency will be stronger, the more labor or 'labor-esque' capital, which can act as a substitute for labor, that the household commands. (We will shortly come back to the use of draft animals and plows.)

Thus, we find that for 'technical' reasons, households lacking labor can be expected to concentrate on subsistence crops. There is, however, also a second probable reason, which is likely to be of relevance especially for the very poorest households. These households, who experience the most severe labor shortages, are quite probably strongly averse to risks and in particular to the risk of not getting enough to eat. Unexpected price changes in the 'wrong' direction may lead to incomes that are too small to guarantee that the basic needs of the family are met. This risk is especially pronounced for cash crops, since tobacco or cotton cannot be eaten should their price fall drastically, and hybrid corn presents another problem in that it can only be stored in
bamboo bins for a few months. Consequently all households grow their own food — local corn. This can always be eaten if it cannot be sold.\textsuperscript{14}

Thus, for reasons of risk aversion, at low income levels, subsistence crops can be expected to take precedence over cash crops to a larger extent than is warranted by price factors alone:

The vast majority of households in lower [income] groups do not engage in the production of purely cash crops, probably because their resources are not sufficient to grow both essential food crops and cash crops without risking inadequate

\textsuperscript{14} Pletcher (1979), pp. 17-18.
production of the former... This feature may often be attributable to inadequate resources – especially labour. Where peak labour requirements for food and cash crops coincide, priority is given to the food crop...

according to Marter and Honeybone.\textsuperscript{15}

As indicated by Figures 5.2 and 5.3, the lack of labor also shows up in incomes. The richest households in the Chikuwe-Sayiri area are known to be those that concentrate their productive efforts on cash crops. These are not in the main households who have better access to land, since land does not appear to be much of a constraint,\textsuperscript{16} but households who have plenty of labor resources. Households where the adult members were between 21 and 40 years of age were generally found to be absent from the lower end of the income distribution – a pattern which was common for the entire country.\textsuperscript{17}

It must be kept in mind that the techniques employed in Chikuwe and Sayiri are heavily dependent on labor. Ninety percent of all the farm households in the area for example clear their fields by means of hand hoeing. (See Table 5.3 below.) During the peak seasons in agriculture, labor becomes a scarce resource. This, in turn, means that the area which can be cultivated by hand cultivation by an average nuclear family with three adult members is not particularly large.\textsuperscript{18} A reduction of the labor force, given the labor-intensive techniques employed, where hand labor is supplemented only by some ox power, presents a serious problem during the peak periods of agricultural activity. In this way, although hard data are lacking, migration is likely to have a negative impact on agricultural output. It does not appear very plausible that those left behind could substantially increase their work in agriculture, since this group has mostly consisted of older males past their prime and women who have had at the same time to take care of a host of household duties.

There are few alternatives available to the poorer segments of the rural population to make up for the fall in earnings created by out-migration of the most productive individuals. This is shown in Table 5.2. The most common form of supplementary

\textsuperscript{15} Marter & Honeybone (1976), p. 67.
\textsuperscript{16} Ibid., p. 58.
\textsuperscript{17} Ibid., pp. 31-32.
\textsuperscript{18} Heney (1973), Hailey (1971).
Table 5.2  Distribution of Households in Chikuwe and Sayiri According to Regular Supplementary Sources of Income

<table>
<thead>
<tr>
<th>Activity</th>
<th>% of all households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beer brewing</td>
<td>14.6</td>
</tr>
<tr>
<td>Casual laboring</td>
<td>3.1</td>
</tr>
<tr>
<td>Shop/retailing</td>
<td>1.1</td>
</tr>
<tr>
<td>Carpentry, pit sawing and charcoal burning</td>
<td>3.3</td>
</tr>
<tr>
<td>Bricklaying and brickmaking</td>
<td>1.7</td>
</tr>
<tr>
<td>Basket making</td>
<td>2.9</td>
</tr>
<tr>
<td>Pot making</td>
<td>0.3</td>
</tr>
<tr>
<td>Blacksmithing</td>
<td>0.9</td>
</tr>
<tr>
<td>Tailoring</td>
<td>1.0</td>
</tr>
<tr>
<td>Other</td>
<td>1.4</td>
</tr>
<tr>
<td>Total of above</td>
<td>30.3</td>
</tr>
<tr>
<td>Farming only</td>
<td>69.7</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Income derives from beer brewing, but this requires purchased inputs, like sugar. Consequently, local agricultural piece work is the most important way for many of the poorer households to get access to cash for the purchase of such essential commodities as salt, sugar and textiles. Piece work, however, often interferes with work on their own farms, because of the seasonality of agriculture. Hence, the contribution of piece work to total incomes is generally low and is in no way sufficient to close the income gap vis-à-vis the richer rural households created by out-migration. A fact of even greater importance is that 70 percent of all the households in the survey areas had no source of supplementary incomes at all.

Migration has also had severe social consequences. The lower the number of able-bodied men in a family, the greater the participation of female family members in agriculture. Most women in the two survey localities are not only engaged in domestic activities but are also forced to carry out heavy duties in the fields, like hoeing, planting and weeding. The increase in labor effort that the women have been forced to provide has not led to the visible improvement in their social standing that one
would have expected. There is little correspondence between the importance of the labor input of women and their social and political situation. Indeed, it appears as if the situation of women in the households where the men have left has deteriorated rather than improved in social terms. Their vulnerable economic circumstances and their insecure social position are the results of the absence of their husbands. Frequently, the consequences have been marriage instability and divorce and this has not been compensated for socially or politically in any of the two survey areas. The small and often erratic amounts of money remitted by the migrants to their wives, parents or other relatives have not done much to alleviate the general social and economic deprivation of those left behind.

At the root of the trouble besetting the poorer rural families is the lack of manpower. In principle this problem can be solved by the increased introduction of ox power. Hand clearing of a

19 In this respect some important differences emerge between the two chief areas in the survey. In Sayiri ox-cultivation is more widespread than in Chikuwe. Out of the 1,294 households of Chikuwe, only 25 employed oxen (1.9 percent), whereas 100 of the 577 Sayiri households (17.3 percent) did. In Sayiri, the oxen owned were most widely used for cultivation purposes while in Chikuwe they were used mainly for transportation. This must be compared with the fact that, as we found above, the rate of male out-migration is lower in Sayiri than in Chikuwe. In addition, the average density of population in Sayiri was more than twice that of Chikuwe when the survey was taken (38 persons per km² against 15). Thus, contrary to what one would believe a priori, it is in the relatively-labor-abundant area that ox-cultivation is most widespread. In addition, the Chikuwe region is the most fertile one, the soils being vastly superior in quality to those of Sayiri.

The reasons for this difference between the two areas are quite probably to be found in the fact that cattle ownership is more widespread in Sayiri than in Chikuwe, with some 2,000 head being owned at the time of the survey, against 1,500 in Chikuwe. This in turn has both an economic and a social explanation. The economic one is that the land in Sayiri is comparatively better suited to cattle-ranching than to agriculture than is the case in Chikuwe, due to less fertile soils in the former area and the closeness to the tsetse perimeter in western Chikuwe. The social reason is that the Ngoni tribe has a long tradition of keeping cattle not only as an important production factor but also as a fundamental prestige good that is central to most commercial transactions. Presumably, then, the more frequent use of oxen in agriculture in Sayiri has emerged as a by-product of the keeping of cattle for other purposes.
### Table 5.3
Distribution of Households in Chikuwe and Sayiri According to Techniques Used for Different Farming Activities

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>No activity</th>
<th>By hand</th>
<th>Oxen</th>
<th>Tractor</th>
<th>By hand/oxen</th>
<th>By hand/tractor</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plowing</td>
<td></td>
<td>89.7</td>
<td>8.1</td>
<td>2.1</td>
<td>0.1</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Hoeing</td>
<td></td>
<td>15.6</td>
<td>81.5</td>
<td>2.6</td>
<td>0.3</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Harrowing</td>
<td></td>
<td>1.5</td>
<td>92.3</td>
<td>5.9</td>
<td>0.2</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Ridging</td>
<td></td>
<td>0.6</td>
<td>98.7</td>
<td>0.6</td>
<td>0.1</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Planting</td>
<td></td>
<td>6.7</td>
<td>92.2</td>
<td>1.1</td>
<td>-</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Weeding</td>
<td></td>
<td>94.4</td>
<td>5.6</td>
<td>-</td>
<td>-</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Spraying</td>
<td></td>
<td>3.1</td>
<td>96.0</td>
<td>0.8</td>
<td>-</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Harvesting</td>
<td></td>
<td>0.1</td>
<td>96.0</td>
<td>-</td>
<td>-</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Field of one hectare requires some 240 man-hours, whereas plowing the same field with oxen reduces the necessary labor input to a mere 60 hours. For ridging a hectare, hand cultivation requires approximately 60 man-hours and ox cultivation only 20. Finally, weeding requires in the case of hand cultivation, 280 man-hours, but only 180 hours if oxen are employed.\(^{20}\) Thus, oxen constitute a good substitute for hand labor. Consequently, the cultivation of a given field becomes possible with less labor, or, alternatively, it allows for an extension of the acreage under cultivation with a given labor force.

Nevertheless, oxen are not widely used. This is shown by Table 5.3. Only 8 percent of all households in the survey areas employed oxen for plowing, less than 3 percent for harrowing, some 6 percent for ridging and some 0.5-1 percent for the other activities shown in the table. The main explanation would appear to be the lack of finance. Oxen, plow and other necessary equipment together represent an indivisibility for the farmer, and unless the size of the farm is large enough to make the savings of la-

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Labor time outweigh the yearly cost of employing oxen (and plow) it makes little sense to make this investment.\textsuperscript{21} (The survey showed that only commercial households with male heads, i.e. richer households, possessed any trained oxen.)

Oxen can of course also be leased. In this way it is possible to get around the indivisibility constraint. However, leasing is often expensive. The seasonality of agriculture means that all households in principle need oxen at virtually the same time, especially for clearing the fields, which has to be done immediately before the onset of the rains. In turn, this creates an indivisibility problem for the person who owns and rents the oxen to others. Only 69 out of 1,870 households in the survey area owned more than a single pair of trained oxen in 1973-74 (less than 4 percent). Unless the oxen can also be rented during the off-peak seasons, e.g. for transportation purposes, it may not be possible for the owner to cover all the costs of oxen, plows and other essential equipment at the prevailing rent, due to the fact that too few people would use his services.

In Sayiri, the lowest price charged was 15 Kwacha for plowing approximately one hectare. However, this price was only charged by a handful of ox owners. The normal fees varied between 20 and 25 Kwacha. In some instances a few households who had settled in an area with no oxen at all paid up to 50 Kwacha to have a hectare plowed. Thus, land preparation with hired oxen normally cost as much as one-third of the total value of output, which was more or less the maximum that those leasing the oxen were prepared to pay. Assuming a wage rate of 0.06 Kwacha per hour, hand hoeing of a field of one hectare would cost slightly over 19 Kwacha.

It must also be mentioned that at the time of the survey in Chikuwe, a state-controlled Tractor Mechanization Unit was beginning to compete with the services of the ox owners at a comparatively low price, due to heavy subsidization — 10 Kwacha per hectare plowed — i.e. less than the lowest price for hiring oxen in Sayiri. Although the TMU was not able to satisfy more than a fraction of the demand, due to constant mechanical breakdowns, a number of people in the Chikuwe area reported that they were not interested in oxen but preferred instead to wait for a chance to utilize the tractor service.

A final reason for the lack of ox power in agriculture and for

\textsuperscript{21} Cf. Lundahl (1979:1), pp. 590 ff. for a discussion of this rationale.
the lack of capital in general in 1973-74 was that the migrants who eventually returned to their points of origin were often reluctant to invest their savings in farming. Most of the returning migrants were old and failed to perceive any opportunities for investing in improved agriculture. Those who had managed to amass sufficient savings and who were willing to invest in their home areas were more inclined to do so in shops, transportation or other business enterprises.

Conclusions

When all the effects of out-migration are taken into account, it is doubtful whether any of the two localities could be characterized as 'well-adapted to a high labor migration rate', as suggested by Helmuth Heisler for the Chewa, a tribe living in an area including that of Chief Chikuwe. Heisler contends that the Chewa economy is 'viable' because of a high degree of circulatory movement, i.e. of migrant workers returning to their old villages. He points out that the agricultural system may remain operative because the pressure of the population on the area's natural resources is relieved by the exodus of men and women. This is of course in a sense true. Especially in Sayiri, with its higher population density and less fertile soils, overgrazing and erosion constitute a severe problem. However, it is questionable whether the agricultural economy should be described as either viable or well adapted to migration. Labor is one of the scarcest resources during the seasons of peak activity in agriculture, since migration is increasingly less circulatory in character — due to the increasingly permanent nature of urbanization — and since most of the returning migrants show a reluctance to invest in farming. On the contrary, it appears as if migration has actually contributed to further social and economic impoverishment.

In the wider perspective, these findings point to the necessity of including an explicit analysis of what takes place in the traditional sector when applying models that are cast in a dualistic mold. It is not sufficient to simply postulate that labor is forthcoming to serve the expansion of the modern sector without causing any negative repercussions in the traditional sector from which the labor is drawn. Much obviously depends on the institutional setting within which the transfer of labor takes place. In some societies it may be completed without causing any prob-

lems. Indeed, incomes may be expected to rise in rural areas when labor leaves the traditional sector. In other societies it may create difficulties.  

Societies of the African type where the division of labor, even in the absence of migration, is such as to confer an important economic role on women and where migration is selective in that it drains rural areas of their most capable manpower—men in their most productive age—are often of the latter type. The labor constraint created by the departure of the young men may become so serious that it leads to a fall in the per capita income of those remaining, since the difference in productivity between those leaving and those staying may very well have been so substantial that the migration of the young men could not be offset by the increased labor of women and older men. It may not be possible to compensate for this loss of average efficiency even where labor is relatively abundant. Due to the restrictions imposed by the natural rhythm of agriculture, the labor effort has to be concentrated during a short peak period. This results in a reduction of average incomes. This reduction may, however, not be equally distributed, since the households with more productive assets—capital—are presumably able to substitute these assets for labor and to acquire more of them if needed. Thus, the labor constraint may be felt mainly by those households who are already the poorest. In this way migration may increase the skewness of the distribution of income in rural areas, especially if there are no or only limited offsetting transfers from the migrants living in the towns. The women are especially likely to be hurt, since it is they who must bear the major burden of adjustment to migration. They have to increase a work effort which is already substantial, perhaps without being able to counteract the tendency for incomes to fall and without receiving social recognition for doing so. Perhaps it is in this light that we ought to interpret the observation made by René Dumont in *False Start in Africa,* that ‘most African peasant women are fully employed, and many are clearly overworked.’

23 For an example of the former (Taiwan), see Chinn (1979). Evidence from the latter type of societies (Southern Africa) is found in Low (1981).
THE CHANGING ECONOMIC ROLE OF BEER

'I'll get the bucket, get the bucket, gonna buy some beer.'
F. J. LaMenthe, 1885-1941

In the present chapter we will deal with a particular consequence of rural-urban migration, viz. changes in social customs and labor mobilization which in turn contribute to the increasing social stratification of rural society. The custom in question is beer drinking, as exemplified by the Ngoni group of Chipata District. The central thesis advanced is that the existing anthropological analysis of the role of beer in Central African society is inadequate. The consumption and brewing of beer provides an interesting reflection of economic and social patterns of a more fundamental nature. During the present century, consumption and production of beer have undergone certain changes, but these changes can be properly understood only when they are related to the economic and social changes that have taken place simultaneously.

The most important of these changes is the migration from the countryside towards urban areas and the increased commercial integration of the countryside with the city as a result of the production of cash crops. The patterns of production and consumption of traditional beer are an institutional remnant from an earlier economic and social structure. This remnant has largely retained its form although its functions have changed dramatically. Today, the better off groups have largely withdrawn from the production and consumption of beer within the traditional cooperative framework. It would appear that it is now the less wealthy households (although not the very poorest) that experience a shortage of labor who have retained the ceremonial importance of beer drinking simply in order to guarantee their own continued existence and economic reproduction in the face of a changing economic environment.
The Old Customs

In the comparatively homogeneous cultures of Central Africa, particularly the so-called matrilineal cluster, comprising the majority of the tribes in Zambia, there are few cultural features that have received as much attention as the role of traditional beer drinking. Few anthropologists or ethnographers have failed to emphasize the social importance of ceremonial beer drinking in the traditional societies.

The different ceremonial occasions for beer drinking were concrete reflections of, among other things, the prevalent social structure and the political and economic hierarchies. Important occasions were always accompanied by beer brewing and drinking by the adults in the village, both men and women.

The old forms of beer drinking had many dimensions, as could be expected from a cultural practice which reflected the structure of the society. Consequently, most authors have focused their analysis on the causes of ceremonial beer consumption, regarding the dynamics of the actual ceremonies as a secondary phenomenon. Different authors have chosen to emphasize different social aspects connected with beer consumption, depending on their particular interests.

This approach has sometimes resulted in a superficial account of the most basic and elementary features of the institution of production and consumption of beer. Basic information has often been treated in a rather slipshod fashion. The fact that it was always the women who were responsible for producing the beer, that different types of beer were brewed depending on the season and the economic importance of the occasion, that both men and


2 In the present discussion of the importance of traditional beer drinking one particularly important and problematic point relating to the historic material should be emphasized. Brief social reconstruction, with the omnipresent tendency among anthropologists to reconstruct a tribal pattern that departs from the ethnographic present, does not allow a sophisticated distinction between more and less traditional habits and customs. When something can be called ‘traditional’ has always been a difficult question in anthropological research. (Cf. Shanklin (1981), for a discussion.) In the present analysis we will avoid this potentially delicate issue and regard these practices as parts of old cultural patterns, emphasizing the cognitive aspects. What is considered ‘traditional’ is traditional.
women participated in beer drinking, that beer drinking was a communal and ritual occasion and not a privatized act of refreshment, has too often been only implicitly and vaguely stated.

J.A. Barnes, for example, in his analysis of the Ngoni social and political system has emphasized the relation between beer drinking, chieftainship, tribute and authority. The chief always received presents of beer from his subjects: 'Ngoni offer beer as one of their principal expressions of hospitality, and in a formal beer party the ordered pattern of the social structure is acted out in the distribution ...'\(^3\) It is a 'traditional obligation to provide a jar of beer for the head of the segment. Every time a chief officially performs his duty beer should be provided, though he does not drink it all by himself. A chief who acts like a commoner and wanders through his villages seeking for beer risks the reprimands of his lieutenants.'\(^4\) The Ngoni, though they do not belong to the Zambian matrilineal cluster, are thus an excellent example of how beer drinking represented and confirmed existing political structures and of how the frequency of 'political' beer drinking necessitated a constantly high production of ingredients (preferably millet). But drinking the beer was also an act of trust, both towards the women/producers and towards the host offering the drinks. Both the Ngoni\(^5\) and the neighboring Chewa tribe\(^6\) tell of poisoned beer and accusations in conjunction with beer parties. Today it is still the custom with non-bottled beer in most rural areas that the host always takes the initial drink to show that the beer is harmless.

Most important events were accompanied by beer drinking. Apart from \textit{rites de passage} and entertainment, tasks such as iron melting,\(^7\) construction works,\(^8\) different religious offerings\(^9\) and libations for ancestors and sick people,\(^10\) reciprocations for meat\(^11\) as well as the settling of disputes\(^12\) were all intimately associated with beer consumption. Beer was sometimes even re-

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4 Ibid., p. 145.
5 Ibid., p. 144.
6 Marwick (1965), pp. 179, 250.
7 Smith & Dale (1968), pp. 205 ff.
8 Marwick (1965), p. 45.
9 Stefaniszyn (1964), p. 84 f.
11 Marks (1976), pp. 36 ff.
12 Gluckman (1965), pp. 170 ff.
garded as having ceremonial and mystical properties of its own.\textsuperscript{13}
It also had important physical qualities in that it provided vitamin rich complements to the starchy diet.\textsuperscript{14}

However, if we focus on the social properties of beer, as demonstrated in the presentation of the above ethnographic material, it is obvious that most authors regard the functions of beer drinking as a mode of integrating the community, of confirming authority and social relations, of maintaining individual reciprocal relations and of redistributing surpluses from wealthy households which earned the latter a reputation for generosity and provided concomitant social prestige.

One of the most important cultural features in the old society was the cooperation between men and women of different households in agricultural work which was rewarded by free beer from the organizing household. The importance of these beer parties and their cooperative function can hardly be exaggerated. They were employed by virtually all social groups of present day Zambia and had very similar contents and functions. Audrey Richards has provided the classical description of the Bemba ukutumya institution where most men or women from a village would join a day's cutting, hoeing, or branch gathering in the slash and burn system for free beer for all the participants in the afternoon. An appreciable amount of grain was used by the Bemba for this type of party and most households brewed at least once during the season to obtain labor for the heaviest agricultural tasks.\textsuperscript{15}

Max Marwick's discussion of working parties among the Chewa, like that of Richards, provides us with a view of social equality and relatively equal participation both as hosts and guests among the households in beer-labor parties. Different terms were used to designate various types of working parties such as 'beer of hoeing' or 'beer of hut-building'. Whether the party would attract labor depended on whether its members had enough corn and its women-folk had the requisite skill for making good beer.\textsuperscript{16}

A similar view is reported from the Mambwe by William Watson\textsuperscript{17} who states that for example during the heavy rains, all

\textsuperscript{13} Colson (1967), pp. 48 ff.
\textsuperscript{14} Richards (1939), p. 76.
\textsuperscript{15} Ibid., p. 146.
\textsuperscript{16} Marwick (1965), p. 45.
\textsuperscript{17} Watson (1958), pp. 106 ff.
villages divided into groups that went every day by invitation to the field of the man whose wife had brewed beer for that day. The villagers worked in voluntary cooperative groups in which the women supplied the bulk of the labor. A household could always depend on assistance. Beer was not payment for work done, but the work itself was reciprocated because a man or woman who attended another's work party obliged others to work in his own fields in return.

The fact that weeding was largely female work and was mainly carried out individually, particularly in the gardens given to the wives by their husbands to provide food and beer for the husbands and families, does not alter the general view of the old work-beer parties or their position as agents of reciprocity between households, men and women, who were considered as comparatively equal in the old society.\(^{18}\) Elisabeth Colson’s account of the social organization of the Gwembe Tonga\(^ {19}\) shows that despite the fact that husband and wife had different fields and different grain stores in the old society, both were able to use their own grain as well as their spouse’s for brewing in a comparatively equal fashion, even though beer parties were mainly arranged for tasks in the men’s fields.

Oral recollections of the past are, however, always idealized and manipulated in one way or another to suit the ideological requirements of individuals and society. This is indeed true for those societies in Zambia on which we have focused. In the old days, many of these tribes kept slaves and prisoners of war. There were also destitutes and beggars.\(^ {20}\) These groups were often not included in the kind of voluntary village cooperation that concerns us here. This was a reciprocal system of cooperation for ordinary village households.\(^ {21}\) At the same time it was an essential part of tribal culture. The beer parties made cooperation a feast, tied kin and friends together, gave security and continuity for the future for both households and village. They were a symbol of cooperation and unity.

\(^{18}\) Ibid., p. 109.
\(^{19}\) Colson (1967), p. 90 ff.
\(^{21}\) The cooperative system did only partially include the more prominent political leaders who often received beer and labor as tribute from their subjects. Richards (1939), pp. 147 ff., Barnes (1967), pp. 15 ff.
Migration and the Need for Labor

The traditional pattern of beer production and cooperative work described in the preceding section has undergone certain changes over time. These changes are to a large extent the result of changes in the economic environment in which the rural population has to live and work.

One such change is fairly obvious. The gradual modernization of the economy with the growth of urban districts, mining and to some extent industry, has created a demand for agricultural products which is satisfied exclusively on a cash basis. As a result of this change together with the improvements in the transportation network that have taken place over the past century, the rural economy has to a large extent been placed on a monetary basis. Instead of producing mainly for the immediate consumption of the family, agriculture is now also a means of providing cash income that can be used to purchase such goods that cannot be manufactured on the farmstead. The increased monetization and integration of the economy has given rise to an increased demand for cash among the rural population.

The second change is perhaps not as obvious as the first but is at least as important, namely the increased out-migration from rural districts in response to the gap between urban and rural earnings. The latter was dealt with in Chapters 4 and 5. Out-migration which is selective in terms of age and sex had important consequences for the rural economy and for those who had remained behind in the countryside. These changes in the rural economy have also been reflected in the changing economic content of beer production.

Out-migration of the best manpower *ceteris paribus* affects the poorer households harder since these cannot substitute capital for labor to the same extent as the wealthier households. This, as we will see, is very important when it comes to explaining the changes that have taken place in the use of beer parties for the mobilization of labor on a cooperative basis.

The New Customs

Among the Ngoni, we find a society where those who participated in the work for beer complex were basically of an equal standing. By arranging a beer party, labor could be attracted. In this

22 It should be repeated that it is only those who participate in the work for beer complex that are equals. As we have pointed out there are groups both ‘above’ (chiefs etc.) and ‘below’ (beggars, slaves) who did not take part in the complex.
process, the person arranging the party also contracted a debt in terms of labor which had to be reciprocated when others arranged similar parties. This process was horizontal in that it involved people of similar social standing (in principle the vast majority) and circular in that the beer drinking labor team in principle moved to each of the households.

As a result of the economic and social changes analyzed in the preceding section, the contemporary pattern of work for beer differs from the one just described. In the first place, beer is often brewed with the purpose of obtaining cash through outright sales transactions. In this way, beer is not only part of the traditional ceremonial complex and of the old subsistence and barter economy but has also been merged into the contemporary monetized exchange system.

The introduction of the cash economy and the subsequent labor migration was accompanied by a process of disintegration of old norms and values, particularly emphasized and diffused in the local communities by returning migrants. Young migrants were threatening the old status hierarchy by using their savings to buy livestock for bride prices, competing with their seniors for marriageable girls in the communities. An equally important change was the new urban attitude towards beer drinking acquired by the returning migrants. In the townships, home brewed beer was made illegal and instead a factory produced an imitation corn beer (*chibuku*) which had to be consumed in 'Native Beerhalls'. Beer was always obtainable for money. Free drinks were a sign of prosperity and prestige. Drunkenness was ubiquitous and beer drinking acquired the character of a non-reciprocal social entertainment.\(^{23}\) This attitude came to dominate the wealthier strata in the village communities and facilitated the introduction of cash sales of traditional beer by women in the villages.

Equally important for the development of new attitudes towards beer consumption was the general disappearance of old values and of local social and political control. New chiefs and Chief Areas were created by the administration without the consensus of the local communities. The new officials did not command much respect and the old chiefs were losing much of their prestige when communal tribute labor and 'necessary' gifts of grain and beer to the chiefs were prohibited by the colonial administration. The tendency towards disintegration of the old system of

social control was further emphasized by a forced ‘regrouping’ of villages, which joined together different and sometimes opposed communities. This resulted in grave social disturbances, conflicts between headmen and village populations and a drastic increase in sorcery and witchcraft accusations.

This confused situation among the Ngoni of Chipata District, as among most other tribes of Zambia, paved the way for new attitudes and practices concerning the role of beer. The intensification of money circulation, the increasing demand for beer as a socially non-committing mode of refreshment and entertainment created by increased migration had developed a totally new consumption pattern by the 1940s, perhaps even earlier. The new social order made it possible for women to utilize their old roles as brewers of beer in an entrepreneurial fashion. A number of women started to sell beer for cash in the villages. These sales became an important means for some of them to gain a considerable degree of economic and social independence. ‘Beer that is sold is of economic importance as it is the principal way in which women raise funds for themselves.’

The women utilized their stock of grain and the new economic structure during the rainy seasons when ingredients were scarce for many households. This type of beer consumption, paid for in cash, came close to the urban mode of drinking. Soon the Ngoni of Chipata District, like a good number of groups in Zambia, acquired a reputation for their liking of beer. Even chiefs and headmen were known to spend ‘considerable’ amounts of money on sold beer.

Beer parties also continue to be organized to obtain labor, but the cooperative, reciprocal, element in these parties is gradually being lost. As we have already seen, an increase in income disparities has been encountered in rural areas following the growth of migration. For the purpose of the present discussion we may distinguish three levels in rural society: upper, middle and lower.

In the hierarchy, the upper level no longer participates in the beer parties. This group has other means for obtaining the labor that is necessary for the cultivation of the fields. It is generally better off in terms of family labor, but it also possesses means

25 For another, almost similar, division, see Marter & Honeybone (1976), pp. 29-30.
that allow reciprocity to be avoided. One such means is money, but as we will soon see, paying a labor team by cash is an inferior alternative from the economic point of view. Instead, the upper groups make use of the fact that their contacts with urban areas are better than those of any of the other two groups. For one thing, they are better able to afford transportation. Secondly, in town, they stand a much better chance of obtaining goods that are in short supply in rural areas (and generally also in rural townships), like salt, textiles or sugar. These goods are subsequently partly used to obtain labor. In this way, the upper groups in the rural hierarchy benefit from market failure: unequal access to scarce goods due to differences in the contact network. The labor employed comes from the lowest layer of rural society, from those families whose incomes are so low that they need to supplement them by working for others.

This labor, however, also constitutes the backbone of the beer parties arranged by the middle groups. Those who can pay by cash generally stand a better chance of getting labor than those who cannot, because the workers can use cash for a variety of purchases, whereas beer has to be consumed on the spot. However, since cash is scarce, beer parties continue to be a common form of payment among the middle groups. In the survey of the Chikuwe and Sayiri Chief Areas 25 percent of the households with female heads but only 10 percent of those with male heads were engaged in regular beer brewing. These households suffer from a labor constraint imposed by migration, but are still in a position where they can obtain sufficient cash income to buy the sugar required for brewing beer. Moreover this group has a strong tendency not to reciprocate in terms of labor. Thus, the work for beer complex today is a vertical, non-circular affair where the middle strata of the rural population arrange beer parties when they have a need for it, inviting members of the lower strata only to perform the work. The cooperative element has by and large been lost.

This procedure allows the middle group to obtain labor at a lower cost than by the payment of cash. The intention to brew beer in exchange for labor is announced in advance by the household concerned. On the day of the beer party, the beer is first of

26 Hedlund (1980), p. 41. The figures have to be interpreted with caution since they include not only beer used to arrange beer parties but also beer sold for cash.
all tested and its quality is agreed upon. Then, the host’s fields
are divided into individual pieces, one for each participant. Both
men and women participate in work and drinking. Normally, the
work lasts for some two or three hours and then the participants
are given a mug and a half of beer each. A 195 liter drum of beer
is easily sufficient to bring some 50 to 60 people to a beer party
(at least three liters per head), at a production cost of some
5 Kwacha. This produces some 150 man-hours which is about
enough for example to weed 2.5 acres.

If the cost is compared to the cost of cash payment for the
same work, the latter would be much higher than the former.
Thus, the Chikuwe-Sayiri survey revealed that in 1973-74 if a
field of 2.5 acres was to be weeded by casual labor on a cash
(piece work) basis during one day, this would require 21 laborers
working for 7 hours which is equivalent to a cost of 12 Kwacha.
If beer is used instead one large oildrum (195 liters) is needed.
(This would be enough to cover some 150 man-hours of work.)
The cost of producing this amount of beer would be something
like 5.00 to 5.50 Kwacha. Thus, cash payment is some 2.2-2.4
times more expensive than arranging a beer party. It pays to or-
organize a beer party instead of hiring on a cash basis.

It should, however, be noted that this only applies during
part of the agricultural cycle, in the Chipata case approximately
from December to April, from the planting to the next harvest.
During this period, beer and grain are in short supply. Only those
households that have managed to store some corn (or millet) and
who in addition have access to corn are then able to brew beer
provided that they can obtain sugar. (This is also easier, since
some of the corn crop can always be sold and sugar can be pur-
chased for the proceeds from these sales.)

It remains to be explained why the cost of labor obtained via
a beer party is lower than the cost of cash labor. Ceteris paribus,
the two should be equal. However, one reason for this difference
is the traditional and widespread acceptance of beer parties and
cooperative work as important social occasions and as a means of
cementing kinship and other social relationships within the local
community. Beer parties thus provide an element of relaxation
and entertainment that is lacking in cash work. Furthermore, par-
ticipation in beer for work parties does not require as arduous an
effort on part of the individual participant as would working for
cash. It also provides a comparatively easy way of getting beer for those individuals who may not themselves have much command over the resources needed to brew beer and for whom, at the time, an alternative use of their labor is more or less lacking. However, other considerations also play a role. The most frequent occurrence of beer parties is, as we have mentioned, during the December-April period when a number of households risk a shortage of corn. Beer is to a certain extent a substitute for food and thus, poorer individuals can economize on their own corn by joining beer parties.

Conclusions
The present chapter has examined the changing economic role of beer production and consumption among the Ngoni. In the traditional Ngoni society, one of the most important economic functions of beer was as a means of mobilizing labor during periods of peak demand. By offering beer for work, a pattern was established where labor was supplied on a reciprocal basis between people of basically the same social standing. In this, the organizers of beer parties were able to draw on a variety of cultural rationalizations for communal beer drinking.

Due to the penetration of cash transactions in rural areas in combination with rural-urban migration over the past 70-80 years, a new work pattern was gradually substituted for the traditional one, where the cooperative element in the labor teams was lost. Migration was accompanied by changes in incomes and access to certain resources. Thus, the upper groups among the Ngoni withdrew more or less completely from the work for beer pattern. Today, it is only the middle strata in the countryside, those who experience a shortage of able-bodied labor, as a result of out-migration, but who still command sufficient resources to be able to brew beer when corn is not in abundant supply, that continue to use beer to pay for work. However, they no longer employ people who are of similar economic and social status, but rely on the needs of the lower strata in rural society to complement their meager incomes with beer consumption. This mode of employment is less costly than hiring labor on a strict cash basis, since the beer parties, in spite of the changes they have undergone, still retain their role as a social occasion appreciated by those who participate in them.
In the preceding chapters, we have seen how out-migration from rural districts has had effects on these areas that cannot be classified as altogether positive. Indeed the particular experience being dealt with here indicates that the result could easily have been that those left behind are worse off than they would have been in the absence of migration. Labor shortage problems for many households makes it impossible to compensate for the output lost by migration. To maintain their income level, many rural families become entirely dependent on remittances from urban family members and such remittances do seldom take place.

To mitigate the negative effects of out-migration, from time to time measures have been devised to increase the living standard of the rural population. We will not attempt here any systematic survey of these measures but limit our attention to one particular type of effort, frequently employed in Zambia: settlement schemes.

Settlement schemes are usually defined as controlled movements of households from one area to another, often with a considerable amount of administrative supervision, not only of the movement itself but also of the activities of the households once the final destination has been reached.¹ The projects are located in well defined areas and because of this, settlement schemes have often been regarded as equally well-defined socio-economic units.

Settlement schemes have been employed in many areas around the world as an important part of the efforts of different governments to integrate and control local societies and create incentives for increased cash production. Among the more impor-

tant ones are the Gezira scheme in the Sudan, the Volta project in Ghana, the Assam project in India, Alto Beni in Bolivia and Nueva Ixcatlán in Mexico.

In Africa, there is especially one project which has come to play an important role for the development of other settlement schemes, not only in the African continent, but in other areas of the Third World as well. This is the Gezira project, which, being based on voluntary recruitment and continuous expansion, stands out today as the most important development project in the Sudan, where it was launched as early as 1910, and one of the most successful settlement schemes in the entire Africa. In spite of a number of problems involving diseases and land tenure Gezira has come to constitute a model for other settlement ventures because of its modern agriculture and high cotton production.

The size and outward aspects of settlement schemes vary greatly from project to project. Nevertheless, it can be asserted that the projects often closely resemble each other. They all depart from the notion that there are population groups who either want to leave their territories voluntarily and settle down for a new life on an unused land area, or that people are forced to move because of changes in their habitual environment. Recruitment and movement to the new areas is strictly controlled, as are the settlers once they have arrived. Production is as a rule focused on cash crops, often on individually owned plots granted by the authorities.

The Rationale of Settlement Schemes
Political authorities, private organizations and foreign aid agencies which have financed and controlled settlement schemes appear by and large to agree as to the potential advantages of such projects, mainly as a result of the concrete and manageable aspects of the schemes: construction works, clearing of new land, new settlements and new fields with cash crops. Such results are clearly visible, often in a short time, and easily confer prestige on the administrative organization involved.

2 Gaitskell (1959).
3 Baldwin (1957).
7 Chambers (1969), pp. 3 ff.
Before we proceed to evaluate the impact of settlement schemes in the Zambian case, it may be a good idea to take a look at some of the philosophy behind such schemes. A very striking feature in this respect is the diversity of theoretically and empirically founded ideas regarding the applicability and usefulness of the schemes. Most important, however, is the possibility of using settlement schemes as a means for planning and controlling the activities of the population that is moved when a project is mounted. Being fairly dispersed at the outset, a population group, voluntarily or under official pressure, is moved to a well defined and geographically delimited settlement which is much easier to control from the outside. It should be stressed that this control is not simply a negative one in the sense that it offers scope for repressive action but also positive in that assistance is given to agricultural production, social activities, improvements in health and medicare etc.  

Settlement schemes have been used for a wide variety of purposes in different areas. Households have been aggregated in larger units in order to make maximum use of good soil and to create a better foundation for the construction of infrastructural facilities. Intensification of agricultural extension and increased political control are other objectives frequently found in connection with settlement schemes. Of greatest importance from the point of view of the present work is, however, that these projects have at times been viewed as a means of fostering entrepreneurship and cash production in the countryside. Cash crops are encouraged at the expense of subsistence products. By moving the households, traditional village patterns are broken up. (These patterns are often regarded as an obstacle to the intensification of production for cash.) It is hereby envisaged that migration and urbanization will slow down as the rural economy improves.

Settlement schemes frequently arise out of a need to move people when their environment undergoes physical change, as is the case for example with dam constructions. In spite of the perceived negative consequences resulting from the use of force and compulsion, the possibility of exercising control retains a

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8 Many settlement schemes have, however, been a direct result of warfare. Strategic villages, like those in the Vietnam and Zimbabwe wars are also manifestations of the settlement scheme strategy.

9 Palmer (1979), pp. 152 ff.

10 A famous example of this type of argument is the Zande scheme, described by Reining (1966).

strong appeal with both politicians and planners who view the projects as a means of constructing a future functional and expansive society. Both production and marketing are expected to become more effective when new settlement patterns and a modern infrastructure (schools, hospitals, water supply) of the kind employed in urban centers are created. By allocating different kinds of resources to these constructed societies it is often hoped that barriers can be erected against increased out-migration and unhampered urbanization.

It is of course not possible to identify a strict hierarchy of motives behind settlement schemes. In practice, all of the reasons discussed above have been used. The relative emphasis has, however, differed between the various political and administrative levels. Depending on the circumstances, the central political authorities at the national summit level with their planning organizations may have different motives from the local administration for advocating settlement projects as a suitable means for achieving economic development and social change.

Settlement schemes have been used in many countries both before and after the achievement of political independence. Consequently these schemes constitute a type of strategy which, even though it has been used by the colonial powers, is also considered relevant by sovereign national states in the post-colonial era. In fact, in practice, the post-independence projects have often been copies of earlier ventures, whereas the ideological and economic motives have differed considerably.¹²

Settlement Schemes in Northern Rhodesia

In Zambia, settlement schemes have been used in rural development strategies both before and after the country’s independence in 1964. Already during the colonial period, a well established pattern existed that was later to influence developments in independent Zambia as well. In this context two schemes should be especially mentioned. The first one is the Kariba project, situated on the Zambezi River between Zimbabwe and Zambia, where large groups of Gwembe Tonga were forced to move to a new area as a result of the construction of the Kariba dam. The second one is the Mungwi project, in Northern Province where members of the Bemba tribe were recruited to permanent settlements

and controlled commercial agriculture. (The location of these two schemes is shown in Figure 7.1.)

The Kariba project was preceded by a dramatic movement of people. Some 70,000 Tonga were to be removed. Force and shooting were resorted to on the part of the authorities. Removal of the Gwembe Tonga was seen as an absolute necessity, since the dam was considered indispensable for providing electricity to the northern copper mines. Each family within the project on the Northern Rhodesian side of the Zambezi was given small plots of equal size and seeds for cash and subsistence crops were given to each household. The administration took advantage of the drastically changed situation and attempted to push technological change into the social vacuum that had been created. The colonial authorities initiated an extension service to stimulate cash production and also attempted to change the technological preconditions for an intensification of production.

13 The discussion of the Kariba scheme relies on Elisabet Colson's excellent study (Colson (1971)). The information from the Mungwi scheme is based on interviews with former members and evaluation documents from the Department of Agriculture (1964).
The result, however, was largely negative. Cash production never caught on and the Gwembe Tonga reverted to their former subsistence mode of cultivation, applying old flexible river gardening techniques on their small permanent plots. As a consequence of the privatization of land, the women were largely confined to an extra-legal status, since the men, being the heads of the families, had been given the land. This situation had a strong negative impact on the social and economic conditions of the women. The overall economic result of the Kariba project is that the Gwembe Tonga have had to face recurrent periods of hunger. No important sales of cash crops took place. Instead serious social and ecological disruption resulted. It is not just a question of producing a saleable surplus. The Gwembe Tonga are no longer able to produce enough to cover their own consumption needs. Food aid has had to be used in order to avoid serious starvation.

In Mungwi, the situation was different. When the project was initiated at the beginning of the 1950s, the Bemba employed an extensive slash-and-burn type of agriculture. This system allowed for cultivation of a field for two to three years, followed by a fallow period of 15 to 20 years. Hunting and gathering activities continued to be important whereas hardly any agricultural production for sales purposes took place. Instead, cash was obtained by means of a very intensive migration to the Rhodesian copper mines, with the result that male labor was conspicuously absent in agriculture.

In the same way as with Kariba, Mungwi became a system which was planned for and limited to an area comprising plots of identical size. To anchor the project locally and to obtain local participation, the administration entrusted the village headman to find one or more households that might have good potential for future commercially oriented agricultural production and who were generally positive to proposals for modernization. The idea was to break the old village patterns and allocate the plots to enthusiastic settlers whose eagerness had hitherto been hampered by a conservative village structure.

However, it became readily apparent that the 'wrong' type of people had been recruited. The village headman had used the opportunity to get rid of the most unpleasant and troublesome families by recommending, or even forcing, these families to join the project. The second category of project members were households who joined with a view to receiving agricultural subsidies.
Each household was given seeds and a field which had already been cleared and plowed. In spite of massive extension efforts and intensive control of the area and the project members, the results were mediocre. Soon, members started to leave both the project and the area. The ubiquitous control, the threat of forced eviction (both common features of settlement schemes) in combination with poor harvests made others revert to the traditional crops and to subsistence production. Today, the scheme no longer exists.

The Post-Independence Period

In spite of these discouraging experiences a number of settlement schemes were begun after 1964. This development took place in parallel with the development of a number of other strategies, including mechanization of agriculture, creation of producer cooperatives, Intensive Development Zones, state farms and a host of other projects that appear very suddenly and, as a rule disappear with equal speed, because of the absence of an immediately measurable impact. The main characteristic of all these strategies is the lack of continuity. Jumping from strategy to strategy has become a very costly mode of changing conditions in the countryside. One of the few development patterns that have possessed any degree of real continuity in Zambian history, both before and after independence, are settlement schemes. What is the reason for this continuity?

The most important explanation appears to be the concrete character of the projects. When a settlement project is started, concrete and immediate change takes place. Roads and houses are built. People move in. New irrigational facilities are created, etc. Everybody can see that changes are really taking place. For politicians and planners, a settlement scheme is a very attractive proposition. On the one hand, a project represents a microcosm of the society which the planners believe they have created. On the other hand, the character of the projects themselves provides ample scope for using them as panaceas and ad hoc solutions to pressing planning tasks. Thus, settlement schemes have appealed to politicians both at the local and at the national level.

For similar reasons, foreign aid organizations were enthusiastic. The concentration of aid to settlement schemes in Zambia shows up in the strange fact that nearly all settlement schemes

14 Klepper (1979), pp. 139 ff.
during the post-independence period have been administered directly by foreign personnel (probably over 90 percent of the settlement schemes started in Zambia). Alternatively, they have been financed by foreign donors by means of grants or loans, to cover certain costs connected with infrastructural change (perhaps 75 percent of all schemes). The concrete construction of the projects makes for quick results. In Zambia, foreign donors have even been competing for the finance of settlement schemes since this strategy is taken to possess a good potential for gaining prestige and for active external administrative control.

Thus, at least some 140 settlement schemes were launched between 1964 and 1980, the size varying from large projects covering up to 600 members, individuals or households, to small with a mere five member households.\textsuperscript{15} It is also probable that a greater number of projects have been started, discontinued, changed and forgotten. This is particularly the case with schemes that have been conceived locally without the necessary backing at the central level.

\textbf{Commercial Schemes and Subsistence Schemes}

The settlement schemes that have been created after independence can be divided into two categories: commercial schemes and subsistence schemes. The commercial schemes have largely aimed at the creation of a middle class of peasant smallholders/landowners. In these projects, the project administration has systematically recruited peasants who even before they became members of the scheme had experience of cash crop production with a view to commercial marketing. To a large extent these schemes are situated on state land. During the colonial period these areas

\textsuperscript{15} This figure is a broad and conservative estimate. The Zambian rural development administration does not have any department which has responsibility for and total overview of all the settlement schemes in Zambia. Some settlements are or were financed by local mission societies, others by competing departments or parastatal organizations. The estimate also includes refugee settlements and camps established under a Rural Reconstruction Programme for training urban youths in national ideology and agricultural practice. The latter category is not included in the estimated number of foreign administrated settlement schemes. The figure has been compiled from: Eerdmans (1974), Narayanan (1977), ILO/JASPA (1977), Department of Agriculture (1981), and Ray (1979).
were reserved for individually owned European farms and a similar type of status has also been preserved after independence when the former European owners left. A large proportion of these ‘commercial’ settlers who are to grow cash crops were originally squatters, i.e. groups of comparatively enterprising people, illegally occupying and farming vacant state land. For many of the households who came from the surrounding, strongly eroded, African reserves, few other alternatives existed. The population pressure on the land was high and per capita income low. As a contrast, the commercial schemes were situated on some very productive land, with access to well developed infrastructure.\(^{16}\)

The second category of projects, the subsistence schemes, differ from the commercial schemes in that they recruit people who have no or little previous experience of commercial agriculture. They are situated in areas that from an economic point of view may be considered peripheral. They are strongly populistic in outlook, building on the idea of the family as the unit of production, and on equal distribution of land and other inputs. All members are given equal amounts of land. The land, however, belongs to the project and the member only has a right to live on the land as long as he cultivates it. The members are also given equal shares of the subsidized first-year land clearing, fertilizer and seed. With the exception of a few recent settlements, members have to cultivate the same cash crop: hybrid corn.\(^{17}\)

One of the main attractions of these schemes, both in the national political debate and in relation to the recruitment of members, stems from the possibility that such schemes eventually will lead to an improvement in schools, attract health care facilities

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16 The most extensive analysis of the commercial settlements in Southern Province has been made by Larry Bomford (Bomford (1976)). He argues that the result, in terms of increased cash crop production, is very difficult to measure with regard to the settlement impact without some form of control group. However, the production of at least some of the settlements that he analyzed seems to have increased quite noticeably, although with considerable disparities between the different member households.

17 If in the subsistence category we include the small tobacco producing schemes, the so-called one acre schemes, previously run by the Tobacco Board of Zambia but ‘dissolved’ in 1980-81, we must obviously also include tobacco as the favored settlement cash crop. However, the second crop among the member tobacco growers was still the hybrid corn.
and improve water resources etc. In a shorter perspective the schemes aim at promoting sales of hybrid corn, the staple food of the urban Zambian population. Hybrid corn, however, happens to be a 'difficult' crop for small farmers since it requires efficiently functioning markets for both inputs and output, because the grower must purchase seed and fertilizer and must be able to dispose of his harvest within a reasonable period of time.

Since the scale of the subsistence projects is relatively small and since a relatively limited number of members are involved, the development of a market that is tied to the scheme often becomes a way of limiting the infrastructural development in a larger area to a relatively small group of people. (The intention is that this group is to expand its agricultural activities in a way that generates spread effects that touch surrounding groups and societies.)

In 1981, in Zambia there were some 90 subsistence settlement schemes involving from 10 to 100 member households. 18

In spite of the good intentions and in spite of the aid given to the projects, the production of crops for sale has, however, remained low, and in many cases the member households have reverted to a subsistence mode of production.

Despite subsidies, extension service and on occasions a certain amount of 'popular' participation or mobilization when the schemes were launched (participation in the creation of a scheme often entailed prestige gains and sometimes also economic advantages for local leaders), the subsistence schemes have hardly ever been able to live up to the official expectations. With the exception of the early years when the natural fertility of the soil was high, the harvests have been poor. Many schemes have remained dependent on a continuous inflow of money from outside and many of the projects have been discontinued or have disappeared.

18 The figure is inexact and tentative. Again, it depends on whether we are to include the small tobacco schemes as we have done in the present figure. A further complication is that some settlement schemes have been closed down, i.e. the scheme administration has been withdrawn from the settlers. This does not mean that the settlers have left the scheme. It only implies that the schemes have been regarded as no longer viable by the central administration. However, despite these measures, the scheme might exist for the settlers, since these often have a different view of the properties of a settlement scheme.
when outside contributions have no longer been forthcoming. Frequently, projects have been plagued by a high turnover of members. Others have had recruitment problems. Only a small number of member households have expanded beyond the originally cleared land area. Tools have not been efficiently used and only in exceptional cases have the members been able to repay loans for fertilizer and seed.19

The settlement schemes (both commercial and subsistence) have not escaped criticism. Some observers have maintained that the type of society envisaged in settlement schemes is nothing but a manifestation of the penetration of foreign interests and imperialism. Others maintain that the projects are expensive, that comparatively few of the households that are in need of improved economic resources are included, that the schemes are conducive to elitism and strong economic and social stratification and that the settlers remain dependent on continuous subsidies and outside assistance. In addition, the projects have been subject to criticism because of too strong a concentration on commercial monocultures, because of ecological destruction, because of the creation of paternalism and the concomitant obstacles to member initiatives and participation and for applying diffuse criteria for recruitment and selection. Finally, the economic rationality of the project has been questioned. It has (quite correctly) been pointed out that the increase in output obtained has often been bought at a very high price in terms of capital, foreign expertise etc., especially when longer time periods are considered.20

The low output of both commercial and subsistence schemes and the lack of interest found among the members have often been explained as results of specific factors. High turnover of members, inefficiency on the part of the project administration, high beer consumption among the project members, strong preferences for leisure, inability to understand technological change etc. are among the reasons that have been advanced as explanations for the failure of different schemes. Representatives of dif-

19 For analyses of performances of subsistence settlements see for example Eerdmans (1974), Mansfield (1975), NIPA (1972), and Ray (1979).
20 None of the works on Zambian settlement schemes has so far presented the local criticism voiced against the settlement strategy. This criticism does, however, to a large extent correspond to the general debate on the pros and cons of the settlement strategy summed up in Chambers' (1969) classical work.
ferent disciplines have concentrated on their own fields without attempting a wider perspective. Thus, agronomists have viewed the situation as a result of poor soils, deficient fertilization, late sowing etc. Political scientists have pointed to administrative deficiencies, lack of communication between management and members, delays in the provision of credits and service, bad screening of applicants and ignorance on part of the local staff. Economists have concentrated on similar problems but have in addition criticized policies, lack of economic incentives and deficiencies in the marketing system. Social anthropologists, finally, have emphasized such factors as cultural confrontations and lack of understanding between different member groups, lack of tradition concerning private ownership of land, adherence to old loyalties based on kinship structures, abuse of power by 'traditional' power groups and exaggerated or misguided culturally dependent expectations among project members.

All these types of criticism are of course relevant when it comes to explaining why different settlement schemes have failed. However, it also appears as if there are obstacles to success which are common to many schemes. One of these factors, the one to be analyzed here, that has largely gone unnoticed in the analyses of the settlement schemes, is the impact of the schemes on the economic and social situation of the women. We noted in Chapters 5 and 6 that out-migration from rural districts in Zambia has often put the women in a more precarious situation than the one they traditionally enjoyed. When settlement schemes have been introduced as a possible remedy, the situation of the women has often undergone a further deterioration which, in turn, has sparked a series of events that have ended up in the destruction of the entire scheme. Next section will illustrate these mechanisms by means of an examination of a concrete case, that of the Nyangombi scheme in North Western Province.

21 See for example Narayanan (1979), NIPA (1972), Department of Agriculture (1964), and Magande (1975).
23 One of the few anthropological analyses of settlement schemes in Zambia is Kai Arheim's (Arheim (1975)) work on Mufubushi, which was by then a combination of producers' cooperative and settlement scheme.
The Nyangombi Scheme

The Nyangombi settlement scheme was begun in 1975. This scheme, a subsistence project, constitutes an eloquent example of how the economic and social position of women becomes subject to change as a result of planned settlement. The project is located in Mwinilunga District in North Western Province (c.f. Figure 7.2), one of the most backward areas in the country. This area is inhabited mainly by the matrilineal and virilocal Ndembu-Lunda group. The District possesses very few commercially oriented farmers, the infrastructure is poorly developed and the migration of males to the Copperbelt is high. More than one-third of the households in the area lack adult males. Consequently, their heads are female (widows, divorced, wives that have been left behind). These households display a notable lack of labor and are generally fairly poor. The situation very much resembles the one in Chipata, described in Chapters 4 and 5.

The staples grown in the Ndembu-Lunda slash-and-burn system are millet and cassava. The division of labor is uncomplicated. The men clear new fields while the women take care of the rest, like preparing the ground, sowing, weeding and harvesting. In addition the men often hunt. Hunting is of considerable ceremonial and economic importance. They also gather wild honey which is sold on the market in the nearby township and is of great value when it comes to making the local beer. The women are busy with seasonal gathering of mushrooms, larvae, berries and fruits. They represent not only an addition to the diet but also a way for the women to obtain cash by selling their produce on the local markets.

The economic and social position of the woman is subordinate to that of the man. Her work load, which has increased drastically as a result of the migration of the men, has hardly been compensated for, either in economic terms or in terms of social prestige, which is an exact parallel with the situation in Chipata. Nevertheless, the woman often possesses a certain (albeit varying) economic autonomy within the rural family, both as a result of the division of labor and because of the matrilineal organization. (In spite of the fact that the woman resides in her husband’s village, the children belong to ‘her’ kin.)

24 The information on the Nyangombi settlement scheme is mainly field material collected by Hans Hedlund during 1976-78.
The Nyangombi scheme was started in 1975 with a mere 10 families and two years later the number of families had increased to 20. The scheme possesses virtually all of the main characteristics of Zambian subsistence settlement schemes. It was mainly financed by an external donor and a volunteer from the donor country was placed on the spot to assist the scheme members and the local administration. An agronomist from the same country was stationed in the provincial capital. The project administration managed to obtain funds that did not have to be channeled via the highly inefficient local Zambian administration in the province and was largely free to administer its own funds. This was to have long-term consequences, since the local administration was hereby neutralized and partly lost its responsibility for the project.

In the project area, the cash crop tradition scarcely existed. The Ndembu, who constituted the majority of the population
around the settlement area, had a very limited understanding of the new forms of property rights introduced by the scheme. How could ownership of the land stimulate investments in the form of soil improvements or other investments related to cash crop production? As always, the discussion of innate laziness and unwillingness to work and of the perennial pastime of the men — beer drinking — arose when the scheme was introduced. The ceremonial beer drinking that we encountered in Chapter 6 developed, or rather degenerated, into something resembling the Western type of alcoholism.

Another negative factor that affected the early stages of the project was the complicated relations between local leaders and the rest of the population. Local headmen had been strongly in favor of beginning the project. However, this was mainly because they perceived that they would themselves be able to increase their social prestige via the money that would possibly be allocated to their areas. People in general did not hold any preconceived notions regarding the scheme, either in favor of or against the project. It later became clear that people who had moved to the project area had done so mainly to obtain wage jobs, to lay their hands on seed and fertilizer subsidies and because they saw a possibility of moving out of their own village where they were often in conflict with local leadership.

Naturally, all these factors contributed to giving the project a negative slant from the beginning. In particular, the possibilities for successful production of the cash crop, hybrid corn, were lowered. Thus, in a way, we already have an explanation of why things went wrong with the scheme. In another sense, however, it is possible to contend that this explanation is a superficial one, one concerned with the visible manifestations instead of with some of the more important and deeper lying factors. Let us therefore turn to these factors instead.

When the Nyangombi project was initiated it was considered 'natural' by the local administration that only households with male heads should be encouraged to apply for membership. Hence, very few 'deviant' households dared apply for membership since it was quite evident which type of member families were preferred by the local extension service. It was clear from the recruitment campaigns that those households that were dealing with gathering and sales of dried mushrooms, larvae etc. on a larger scale were not considered to have a future as commercially
oriented farmers within the scheme. On the other hand, the gathering of honey was accepted at an early stage by the authorities as an 'established' male commercial activity. Thus, families headed by women, who had a great need for capital and services, were in practice excluded from the possibility of future commercial expansion within the framework of the project, since the recruitment procedure favored families and certain activities dominated by men.

The Nyangombi settlement scheme did not extend to families with an economically expansive female sphere. It also failed to recruit the more well-to-do households in the area, since these turned out to be more dependent on the existing social structure for obtaining labor and for maintaining their social position. Instead, recruitment was mainly successful within a 'middle' group whose household heads did not turn out to be very interested in commercial agriculture (production of hybrid corn). The men were mainly interested in wage labor (road building, land clearing etc.) and in leaving the group of villages that constituted the main recruitment area.

The women in those households that did apply for membership were less enthusiastic than their spouses about their membership despite the fact that many of the women nurtured a strong ambition to change their existing pattern of settlement and very much wanted to begin commercial farming to improve their cash purchasing power. For the women, the changed circumstances in the short run not only implied an alien way of settling and a new way of life but in addition a fear of increased male dominance and more work in the form of transport of food from the old fields to the new settlement, the erection of new huts and new subsistence gardens etc. The recruitment process and the antagonism that this process created between the respective ambitions and expectations of each sex constituted the introduction of what may be characterized as a patrifocal structure within the project. One of the main features of the Nyangombi scheme became its almost total concentration on the males. Accordingly, this was one of the most important reasons behind the scheme's poor output performance.

Female fears proved to be well founded. The household plot came to be regarded as the exclusive property of the male. The woman no longer retained any rights or security when it came to remaining in the area. She could be thrown out because of a
whim on the part of the man. The traditional matrilineality within the project was converted to a strongly developed patrilineality. Consequently, the wife’s dependence on her husband increased dramatically.

For the men, membership implied access to more capital and hence greater control over the family. The clearing of new fields was remunerative at the beginning. The seeds and fertilizer that were distributed free of charge to the members during their first season in the project were likewise given solely to the male members of the households. The subsidized tractor plowing was carried out in the name of the man and it was hence considered natural that both the field and the crop planted in the field were to ‘belong’ to him.

In spite of all this, it was expected that the women should carry out their traditional activities in agriculture. As the commercial crop was now grown in a larger area, the demand on their time for labor purposes was multiplied. Tractors — later oxen — only carried out the plowing, the traditional male activity, but the rest of the work that had to be done in the fields — the part done by the women — often exceeded what could be carried out solely with the aid of family labor. The amount of work to be done was further increased by the fact that the construction of the boreholes that had been promised was delayed so that water had to be carried across larger distances than before. The situation was not improved by having to carry the staple food from the fairly distant fields while at the same time, new fields for the family’s own crops had to be prepared. The antagonism between men and women soon increased substantially. Quarrels, fights and intensified accusations of witchcraft between the sexes became common and this development did not curb either the increased male demands or the nonchalance shown towards the women. Instead, many men began to discuss the possibilities of obtaining more wives for prestige purposes and for expanding their economic activities. Soon, words were turned into action by a few men. This was not at all viewed favorably by the first wives, in spite of their seniority and in spite of the addition to family labor that this represented. Permanent complaints were voiced among the women regarding the indifference and notorious infidelity of their male companions. The men, on their part, complained increasingly of the unwillingness of the women to work in the corn fields. This work often coincided in time both
with the work on the subsistence crops and with gathering activities. (A reduction of the latter threatened not only the limited economic freedom of the women but in addition the entire nutritional standard of the family.)

The refusal of the women to give priority to the production of hybrid corn for commercial purposes naturally showed up in the form of poor harvests, in spite of the fields being only recently put under cultivation and in spite of the addition of considerable amounts of fertilizer. During the first season, 19 bags per lot of 1.2 hectares were harvested (the range being from 5 to 31). The second season saw the average drop to a mere 8 bags (with a range of 0 to 18). The third year was worse yet: 3.2 bags. The expected yield was some 30 bags. To cover the costs of fertilizer, rent of tractors etc., a yield of at least 15 to 20 bags would have been required if these expenses had not been met by the scheme.

When the corn was sold, the sexual conflicts became acute. Only the men took part in the sales transactions and were the ones who received the money for the products. Hence, the men came to be regarded as the legal recipients and owners of the money, both by themselves and by the administration. Most of the men kept their money for themselves, bought beer and purchased presents for their mistresses, while most of the women received very little. The result of the settlement scheme for the women was a reduction of their independence, their social position and their economic possibilities, not only in relative terms but often in absolute terms as well.

Conclusions
The negative effects of out-migration on rural districts have not gone unnoticed by the Zambian administration. Attempts have been made to develop the countryside so as to provide an alternative to migration to the cities. One such alternative has been the creation of settlement schemes. Under the auspices of these schemes, groups of the rural population have been transferred from their old areas to new settlements where they have been provided with infrastructural facilities, land, seed, fertilizer and other inputs that are necessary for growing cash crops to be sold in a wider market.

The majority of these settlement schemes have, however, not been nearly as successful as it was thought from the beginning. The schemes have failed for many different reasons. Some of the
reasons are particular for each scheme, but in addition there are recurrent patterns showing up time after time that have posed formidable obstacles to the success of the settlement projects.

One of the most important of these patterns is the failure to grasp economic and social realities in the countryside. In order to demonstrate this failure we have used here the example of the Nyangombi settlement scheme in North Western Province, among the matrilineal Ndembu-Lunda. By recruiting settlers only among households with male heads, the project administration failed to reach some of the most enterprising households headed by females. Even more serious, however, was that the scheme created antagonism between men and women. When the plots were handed out, the project administration regarded the land as being the exclusive property of the men. The women no longer retained any rights to the land — an abrupt break with the traditions of the Ndembu-Lunda. By the same token the income generated by the project accrued to the men. The women, on the other hand, suffered the negative consequences, either by not being incorporated, in the case of households lacking male members, or by finding the work requirements drastically increased because of the scheme. These discrepancies between the relative costs and benefits for men and women naturally ended up by creating a response to the incentives offered by the scheme which was positive on the part of the men, who benefited from it, and negative on the part of the women, whose position was worsened. The project failed to produce the projected output. The labor of the women constituted a crucial input, while the men contributed relatively little. A scheme designed to improve the economic position of those remaining in the countryside led instead to a deterioration in the living standards of one of the most vulnerable groups.
EPILOGUE

Urbanization is one of the strongest forces at work in the Third World today. If present trends continue twenty years from now, no less than two-thirds of all urban dwellers will be living in less developed areas. This, in turn, creates tremendous problems for politicians and planners all over the Third World. Somehow, this population must be housed, fed and given an income. In all probability, reaching this goal will not be possible, at least not to the point where it is possible to state that the basic needs of these masses are adequately met.

Still, urbanization continues. In many instances those forces which will eventually make for an equilibrium between urban and rural areas in terms of expected standards of living are not allowed to work freely, but politically determined measures in favor of the urban populations continue to stimulate the inflow.

Rural-urban migration creates problems in the urban agglomeration but also for the population remaining behind in rural districts. The smooth transfer of labor from the traditional, largely rural, sector of the economy to the urban industrial sector has not taken place. On the urban side, the result often has been an increase in the rate of unemployment, and in the countryside, those remaining behind frequently see their welfare decline when the migrants leave. Even in the relatively simple, heavily stylized models used in economic theorizing the welfare effects of out-migration from the countryside are by no means always positive. Depending on the specification of these models, the result of out-migration may be that the welfare of non-migrants rises, falls or remains constant.

In real life, with all its complexities, the effects are even less obvious, especially if one is to take into account other changes than those concerned with the consumption of goods and services. Clearly, it is not possible to come up with any broad gener-
alizations as to the effects of migration on rural districts.

Nevertheless, if the institutional environment is specified in some detail, limited generalizations are possible. In the present work, we have examined a limited area in a given country — Chipata District in Zambia — and have found some interesting facts which together tend to form a social and economic pattern which makes sense in the given institutional framework. Migration has a long history in Zambia, both in the country as a whole and in Chipata. The causes are clear as well. People migrate to the cities mainly for economic reasons. The gap between expected urban earnings and rural incomes is large enough to warrant a flow of migrants. Net benefits of a more intangible kind often reinforce this pattern.

It has not been possible to avoid a number of negative repercussions on the rural communities. Since migration is selective with respect to age and sex, in families where there are an insufficient number of males in their most productive age remaining behind, it becomes very difficult to keep production at a sufficiently high level to maintain the standard of living, unless remittances are forthcoming from the city, which is, however, seldom the case. The work burden of the already very busy female family members increases sharply. Children and old people have to be used. If this is not possible, the alternative is to adopt less labor-intensive modes of production. In practice, this means cultivating less labor-intensive crops, i.e. reverting to the production of subsistence instead of cash crops.

The economic changes have their counterparts on the social side. We have investigated one such pattern here — the employment of beer as a means for mobilizing labor on a reciprocal basis during the periods of peak activity in agriculture. Traditionally, beer parties were organized by the vast majority of rural households. Today, as a result of migration and the integration of the countryside into the money economy, only one particular group continues to employ beer parties as a means of obtaining labor. The richest group, those who also have the best access to attractive goods of urban origin, do not have to, since paying with such goods they produce the necessary hands. The poorest group, those who cannot afford the ingredients essential for brewing the beer, are not in a position where they can use beer parties. Only the 'middle' level is left, those who are subject to the labor constraint imposed by migration, but who still can muster enough
resources to brew the beer. However, the reciprocal element has by and large been lost. The beer parties today are instead a means by which the middle category can hire labor from among the poorest group in the community at a cheaper price than would have had to be paid if cash had been used. In order to cope with the negative effects of rural-urban migration and to provide a general increase in living standards in the countryside, both the British colonial administration and the Zambian post-independence governments have among other things made use of settlement schemes, i.e. regrouping people in the countryside coupled with the provision of certain basic infrastructure. Viewed in a historical perspective, these schemes have not been very successful. Frequently, the results in terms of output and incomes have been negligible, the schemes having been plagued by all sorts of administrative, social and economic difficulties.

In this context we have investigated the effects of one such scheme: Nyangombi in North Western Province. The Nyangombi scheme does unfortunately not constitute any exception to the rule. Economically, the scheme is a more or less total failure. Even worse, however, is that it has also had some fatal social consequences. By paying inadequate attention to the organization of the traditional society it attempted to supplant, it has altered the balance between the two sexes, placing the women in an economically and socially inferior position vis-à-vis the men. While the men received all the benefits coming from the scheme, all of the costs fell on the women. The scheme has thus ended up by worsening an already difficult situation in the area.

Zambian urbanization is today running into problems. At the time of the survey in the two Chipata Chief Areas, urban unemployment was not yet rampant. However, since the mid-seventies, the trend appears to have changed. At the end of the decade, formal sector employment in the cities was falling. Whether this trend will continue is difficult to say. From one point of view, it does not matter very much, since the situation in rural areas appears to be worsening as well. The ILO mission to Zambia in 1980 reported that 'we find no evidence to suggest that the real incomes of the mass of subsistence farmers have done anything but deteriorate.'¹ Thus, in spite of increasing unemployment and falling real wages in urban districts, there is no reason to believe that urbanization will not continue, albeit perhaps at a lower rate

¹ ILO/JASPA (1980:1), p. XVI.
than in previous years. Consequently, the generation of income inequalities and social problems will continue in the countryside. Hence Zambia is facing a difficult future, caught between the Scylla of falling rural incomes and the Charybdis of insufficient creation of urban jobs.
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