RURAL-URBAN MIGRATION AND URBAN EMPLOYMENT IN ZAMBIA

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ZAMBIA manifests the typical features of a developing country. Its economy can be characterized as a dual one, a relatively small modern sector and a large, predominantly subsistence, rural sector. In such a setting one of the crucial problems lies in achieving an effective shift of the center of economic activities from the subsistence to the modern sector through the reallocation of labor. In the process, the subsistence sector is expected to be modernized in order to increase productivity to a level that will generate adequate income for those working in this sector and at the same time produce sufficient food and raw materials to support the entire economy. The subsistence sector should then be able to release surplus labor. On the other hand, the modern sector should grow and expand at a rate that will create adequate employment opportunities to absorb both workers released from the subsistence sector and the natural growth of the urban labor force.

Zambia's experience in its fourteen years of independence has shown that the path of development diverges significantly from the ideal type described above. There has been no significant productivity improvement in the subsistence sector and this has perpetuated very low incomes for rural areas, widened the rural-urban gap, and accelerated rural-urban migration. Growth in the modern sector has not created enough jobs to meet the demand by those who have left the traditional sector. In fact, the expansion of the modern sector has not been accompanied by similar growth in employment. The result of this phenomenon has been an explosive urban population growth accompanied by widespread open unemployment, growth of the informal sector, and disguised unemployment.

This paper will attempt to analyze the factors which have contributed to rural-urban migration, the constraints on the growth of wage employment in the modern sector, and the consequences of this state of affairs on the distribution of income. We will then suggest possible policy measures that ought to be taken to tackle the serious problems outlined.

I. RURAL-URBAN MIGRATION

Zambia has a low population density of about 6 persons per square kilometers as of 1976. Because of the low population density there has been no population pressure on agricultural land and probably will be none for decades to come. Between 1963 and 1977, Zambia experienced very rapid urban population growth as Table I shows.

TABLE I
GROWTH OF RURAL AND URBAN POPULATION, 1963–77

	1963 (Million)	1969 (Million)	1974 (Million)	1977* (Million)	Growth Rate per Annum (%)	
					1963–69	1969–74
Rural	2.8	2.9	3.0	3.3	0.5	1.2
Urban	0.7	1.2	1.7	2.0	8.9	6.8
Total	3.5	4.1	4.7	5.3	2.5	3.0
% urban	20.5	29.4	35.3	38.3		

Sources: For 1963, [9]; for 1969, [10]; and for 1974, [15].
* Central Statistical Office estimates.

According to the census of 1963 and 1969, the growth rate of the population was 2.5 per cent. During the same period the annual growth rate of the urban population reached 8.9 per cent. The annual growth rate of the population rose to 3 per cent between 1969 and 1974. This may be attributed to improvement in the supply and delivery of health services. It should also be noted that the rate of growth of the rural population between 1963 and 1969 was only 0.5 per cent, well below the natural growth rate of the total population. The rural rate of population growth increased to 1.2 per cent between 1969 and 1974, while the urban growth rate declined to 6.8 per cent. The trend may be explained by declining employment opportunities in the urban centers evident in the economy throughout the period.

As observed from the data, the massive increase in urban population can be attributed to not only natural growth but to rural-urban migration. To demonstrate this fact we will look at the changes in regional population data. Zambia has five predominantly rural provinces and two which are predominantly urban. We shall examine the movements of the population from rural to urban provinces between 1963 and 1974. To derive the net migration over this period, we shall measure the difference between the change in regional population that actually occurred and the change that would have occurred had the provinces' population grown at the annual natural rate for the nation as a whole.

Table II shows a net out-migration from the predominantly rural provinces of magnitude 20.8 per cent of the 1963 population between 1963 and 1974. This trend was particularly serious in Luapula and Northern provinces where the population actually dropped in 1963–69.

Luapula Province experienced population decline throughout the 1963–74 period. The predominantly urban provinces had a massive net immigration from the rural areas. Between 1963 and 1974, 48.5 per cent of the 1963 population of the urban provinces came from net migration. In other words, about 48.5 per cent of urban population growth resulted from rural-urban migration.

From the data, it is observed that migration to the urban centers between 1963 and 1969 was very high. In the subsequent 1969–74 period, the rate remained high but slightly declined. It is further evident that the proportion of the urban population has grown very rapidly from about 20 per cent of the total population

TABLE II
RURAL-URBAN NET MIGRATION, 1963–74

Province	Population (1,000)			Net Migration as % of 1963 Population	
	1963	1969	1974	1963–69	1969–74
Rural:					
Luapula	357.0	335.6	321.0	−22.0	−19.9
Northern	564.0	545.0	580.0	−19.6	− 9.0
Eastern	480.0	509.5	568.0	−10.1	− 4.5
Northwestern	211.2	232.0	256.0	− 6.5	− 5.7
Western	362.5	410.0	463.0	− 3.1	− 3.2
Southern	466.3	496.0	540.0	−10.0	− 7.3
Subtotal	2,441.0	2,528.1	2,728.0	−12.7	− 8.1
Urban:					
Central	505.0	713.0	920.0	+25.0	+19.0
Copperbelt	544.0	816.0	1,046.0	+34.0	+19.0
Subtotal	1,049.0	1,529.0	1,966.0	+29.5	+19.0
Total	3,490.0	4,057.1	4,694.0		

Sources: For 1963, [9]; for 1969, [10]; and for 1974, [15]. See also Jackman [5].

in 1963 to 29 per cent in 1969, 35 per cent in 1974, and 38 per cent in 1977. Zambia is thus one of the most highly urbanized countries in Africa. The variables which have acted as stimulants to rural-urban migration will be analyzed in the following paragraphs. Zambia is a very thinly populated country. Push factors such as shortage of land for cultivation or negligible income from sharecropping are not likely to have significantly affected migration. Land belongs to the state in all urban centers and can only be leased for use by individuals or organizations. In rural areas land belongs to the communities and all members of the communities have access to its use. We shall therefore limit our discussion to pull factors. Rural-urban economic models of migration postulate that migration is dependent on differences in expected incomes that can be derived from participation in economic activities of the two sectors (see [7] [2]). The higher the expected income differential between rural and urban sectors the more migration will accelerate. We shall demonstrate here with available data that the rural-urban income gap has widened in Zambia and consequently migration to urban areas has accelerated.

Available data suggests a significant increase in both nominal and real wages for urban workers between 1965 and 1972 but a fall in real wages for the two subsequent years up to 1974. Nominal wages, however, rose even during these two years. The decline resulted from a very high inflation rate during the period and a wage freeze which the government imposed to combat inflation. The rural sector, which is predominantly subsistence, increased its income only marginally; barely adequate to keep in line with the growth of the rural population. Table III shows the distribution of wage increase on a sectoral basis while Table IV

TABLE III

ANNUAL GROWTH RATE OF NOMINAL AND REAL WAGES, 1965–74

(%)

Sector	Nominal 1965–72	Real 1965–72	Nominal 1972–74	Real 1972–74
Agriculture	11	5	1	−8
Mining	9	2	3	−4
Manufacturing	10	4	6	−5
Construction	11	4	1	−4
Transport	14	8	3	−2
Services	8	2	5	−2
Aggregate	10.5	4	3	−4

Sources: Computed from [12] [18].
Note: The growth rates have been rounded and do not include the trends for non-Zambian employee wages.

TABLE IV

ANNUAL GROWTH RATE IN REAL GDP, 1965–76

(%)

Sector	1965–70	1970–76	1965–76
Agriculture:			
Subsistence	0.7	1.0	0.9
Commercial	6.9	9.1	7.7
Mining	−4.8	0.3	−2.0
Manufacturing	11.2	4.8	7.7
Construction	−2.4	4.5	1.4
Transport	2.7	1.1	1.8
Services	9.3	4.5	6.7
GDP	2.0	3.0	2.4

Sources: Computed from [13] [14, 1971] [14, 1975] [18].

shows the growth of real income of the various sectors including the subsistence sector.

For the seven years, there was a steady increase in both nominal and real wages. The growth rate of money wages averaged about 10.5 per cent per annum while real wages grew at an average of about 4 per cent per annum with inflation running at about 6.5 per cent per annum on the average. A decline in real wages at a rate of 4 per cent was experienced by urban workers in 1973 and 1974. While the real income of predominantly urban dwelling wage earners improved significantly over the period, the subsistence sector experienced no similar gains in real income as seen in Table IV.

The sectoral growth rates of GDP give us an indication of the extent to which the subsistence growth rate has lagged behind that of the modern sector. The subsistence sector's growth rate was only 0.9 per cent per annum between 1965 and 1976, less than half the overall annual growth in GDP. The sectors based within or around urban centers experienced much higher rates of growth. The manufacturing sector grew at a rate of 11.2 per cent in real terms between 1965 and 1970, slowed to 4.8 per cent between 1970 and 1976, an average of 7.7

per cent for the whole period. Relatively high growth rates were also achieved in the commercial agricultural and service sectors both of which are predominantly located in urban or peri-urban areas. The mining sector's growth rate was negative due to serious technical problems which arose after the Mufulira Mine disaster and the subsequent temporary closure of this mine, one of the largest in the country. From the foregoing analysis, real wages of predominantly urban workers increased and the urban sectors of the economy, particularly manufacturing, had high growth rates while the subsistence sector had a negligible rate of growth. From this it can be deduced that rural-urban income differentials have widened in Zambia, a factor which has been a stimulant to rural-urban migration. This conclusion is only tentative because of inadequate statistical information.

The high rate of migration to urban areas has serious repercussions for both the subsistence and the urban sectors. Migration deprives the subsistence sector of the most productive type of manpower. It has been established that people who tend to migrate are the educated, the young, and the most enterprising. In Zambia, 90 per cent[1] of secondary school leavers in rural areas migrate to cities within the first year of graduation. Similar evidence has been established in Ghana [2] [6]. The immigrants increase the supply of labor for the urban sector to levels that cannot be absorbed, resulting in rising open unemployment, rapid growth of the informal sector, and increased urban poverty.

II. LABOR FORCE AND URBAN EMPLOYMENT

According to the 1969 population and household census, the total labor force was 1.14 million, with 610,000 classified as subsistence workers, 37,000 employed in the commercial agricultural sector, and 291,000 employed in the industrial, mining, construction, transport, and service sectors. The remaining 201,000 were either unemployed or partly absorbed by the informal sector. By 1974 when a sample population census was conducted, the informal sector showed the largest increase.

In the period for which data is available, i.e., 1969 to 1974, the subsistence labor force increased by only 45,000 or 7.4 per cent. During the same period, wage employment increased by 40,000 or 12.2 per cent. The urban unemployed or disguisedly unemployed or those engaged in the informal sector grew by 48.3 per cent or 97,000 from 201,000 to 298,000. The proportion of the informal sector increased from 17.6 per cent of the total labor force in 1969 to about 23 per cent in 1974. We can infer from the rapid growth of the informal sector that migration to the urban sector has greatly worsened the problem of unemployment, underemployment, and urban poverty in Zambia. Another phenomenon arising from this situation is that the informal sector is now so important that no meaningful social and economic planning can take place without giving it full consideration.

The rate at which wage employment grew between 1965 and 1974 lagged

[1] See Tracer Project, University of Zambia.

TABLE V
DISTRIBUTION OF LABOR FORCE, 1969–74

	1969	1974	Growth 1969–74	%
Subsistence	610,000	655,000	45,000	7.4
Wage employment	328,000	368,000	40,000	12.2
Urban unemployed and informal sector	201,000	298,000	97,000	48.3
Total	1,139,000	1,321,000	182,000	

Sources: [10] [15].

TABLE VI
ANNUAL GROWTH RATE OF WAGE EMPLOYMENT, 1965–74

(%)

Sector	1965–70	1970–74	1965–74
Commercial agriculture	1.4	−4.4	−1.1
Mining	1.7	2.6	2.1
Manufacturing	5.6	1.0	4.1
Construction	5.6	0.7	2.9
Transport	6.8	2.7	3.9
Services	7.6	2.6	6.0
Total	5.1	1.4	3.6

Sources: [12] [11, 1969–70] [17] and various issues of *Economic Report* by National Commission for Development Planning.

behind the demand for employment as evidenced by the rapid growth of the labor force in the informal sector. We shall now examine some of the factors that may explain the failure of wage employment to grow at a high enough level to absorb excess labor. We shall suggest that technological dependence resulted in the utilization of capital-intensive production methods which yield few jobs for any additional investment. This was the main constraint on the growth of wage employment. The government artificially reduced the price for capital through subsidy. Before examining the main constraints on employment growth, the economy's ability to create jobs shall be evaluated.

The data has been split into two periods, the first phase covering the First National Development Plan. During this period wage employment grew in all sectors. The largest growth rate was in the service sector, brought on chiefly by the fast-growing bureaucracy after the new state achieved independence in 1964. High growth in transport and construction is the result of large investments in infrastructure, the dominant feature of the First National Development Plan. The manufacturing sector was the fastest growing sector reflecting the short-term success of import substitution policy during the early stages of development. The overall growth rate for wage employment was a fairly impressive 5.1 per cent per annum in 1965–70. Between 1970 and 1974 the growth rate dropped to just 1.4 per cent and there are indications that the declining trend further

TABLE VII
CAPITAL-LABOR RATIO, 1965 AND 1973
(In constant 1965 kwacha per worker)

Sector	1965	1973
Commercial agriculture	826.0	2,914.0
Mining	9,970.0	10,747.0
Transport	8,955.0	10,454.0
Construction	336.0	783.0
Manufacturing	944.0	3,658.0
Services	6,213.0	8,037.0
Total	4,541.0	6,099.0

Sources: [8, 1966] [8, 1969] [11, 1966–72] [16] [12].

continued in subsequent years. The falling growth rate of wage employment was evident in all sectors although the GDP growth rate between 1970 and 1976 was higher than during 1965 to 1970 (see Table IV). This phenomenon may be attributed to increased capital intensity in the production process. To affirm this assumption we shall examine the behavior of capital-labor ratios for the whole modern sector and a selected number of industrial projects implemented during the post-independence period.

The overall capital-labor ratio rose from 4,500 kwacha per worker in 1965 to about 6,100 kwacha in 1973, an increase of approximately 35 per cent in real terms. This implies that the cost of creating a single job in the economy had gone up by 35 per cent. The commercial agricultural sector had the highest rise in capital-labor ratio, an indication of the intensive mechanization of the production system; capital-labor ratio increased from 830 kwacha to 2,900 kwacha in real terms, an increase in capital intensity of about 250 per cent in eight years. (Table VI shows that the commercial agricultural sector had negative growth in employment.) For all sectors there is a significant increase in capital-labor ratio. Small increases are observable in the mining and transport sectors which are traditionally capital-intensive.

We may now examine some of the major industrial development projects which have been undertaken since independence to illustrate the use of capital-intensive production methods. Table VIII presents industry by type, actual capital invested, number of jobs created, and capital cost per worker.

The total investment of about K132 million created only 8,945 permanent jobs. The average capital cost of creating a single job was thus about K14,800. For a surplus labor economy, this is a very high capital intensity. Increasing capital intensity was encouraged by policies biased in favor of capital importation such as exemption from customs duties on all capital goods, investments credits on income tax, and generous depreciation allowances. Increasing use of capital-intensive production methods contributed significantly to a reduced expansion of wage employment.

We have so far established that modern sector income increased much faster

TABLE VIII

SELECTED DEVELOPMENT PROJECTS SINCE 1964

Industry	Capital Investment (K 1,000)	Employment at Full Operation	Capital Cost per Worker (K 1,000)
Textile mill	8,000	960	8.3
Chemical fertilizer plant	18,000	600	30.0
Civil explosives plant	8,000	400	20.0
Petroleum refinery	24,000	350	68.6
Car assembly plant	2,500	250	10.0
Metal fabrication plant	2,300	80	28.8
Industrial fabrics	2,200	570	3.9
Oil pipeline	32,000	200	160.0
Tire and tube plant	4,000	435	9.2
Sugar estate and refinery	14,000	2,500	5.6
Trucking	10,000	2,000	5.0
Breweries	7,000	600	11.7
Total	132,000	8,945	14.8

Sources: [3, pp. 20–21] [4, pp. 6–7].

than subsistence income and that this contributed to the acceleration of migration to the modern sector. The consequences of this development for income distribution were very negative. First, we have moved further away from bridging the gap between rural and urban incomes. Instead income disparity between the two sectors has increased. On the urban scene, high immigration from rural areas has not been accompanied by similar growth in employment opportunities resulting in a very fast growth of the informal sector and an increased number of people at the bottom decile of income bracket in the urban sector. On the basis of the Central Statistical Office's household surveys for 1972–73, the Gini-coefficient reveals a highly skewed distribution of income. In fact the distribution of income has slightly worsened compared to 1959. The Gini-coefficient in 1959 was about 0.52 (see [1]) as against the 0.55 for 1972–73.

III. SOME POSSIBLE POLICY MEASURES

The situation revealed by this analysis calls for immediate policy re-orientation to reverse the present trend. It should, however, be appreciated that Zambia is a small country in a very unfavorable economic and political situation.

The policy measures recommended here are aimed at improving the situation for the poorest segment of the population which still constitutes the vast majority. The policy package we shall recommend will focus on three areas:

(a) Measures to increase the productivity of the subsistence sector, thus raising rural income and reducing the rural-urban gap.

(b) Innovation in the informal sector to raise its performance and increase the income of its workers.

(c) Changes in the production pattern to increase the job creation capacity of future investment in the formal sector.

Productivity in the subsistence sector has not significantly improved. This is explained partly by the lack of fundamental change in the organization of community and production. The first step to improve the economic performance of this sector is the introduction of new forms of village organization. At the moment villages are widely scattered vast areas and, in most cases, too small to form viable economic units. They should be regrouped into larger units to facilitate easy delivery of infrastructure, agricultural inputs, and other services. The form of organization should be based on cooperative effort and self-management.

The new units should be established in areas with high agricultural potential. The next step would be to create a basic social and economic infrastructure in the new settlements, consisting of feeder roads, schools, and medical services. Some of these facilities already exist in some rural areas. In addition to formal education wide-ranging agricultural extension services should be developed and provided to the new organizations. Another innovation necessary is the provision of credit facilities for such rural units. The existing agricultural financing organization should devote most of its resources to financing new rural production units. To ensure that rural production is properly marketed, there is a need to establish effective marketing organizations possibly on a cooperative basis to distribute inputs such as seeds, fertilizers, and equipment and to buy the produce. The present marketing organization is too large and too centralized to cope with effective buying of produce. It should be broken down into small rural marketing organizations which can be managed by their members. Similar decentralization of the agricultural financing organization would be appropriate. The policymakers should also introduce favorable agricultural prices to correct the current adverse terms of trade between rural and urban sectors.

A similar program is required for the informal sector. There is a need to introduce or extend the cooperative production and marketing organization to the informal sector. The informal sector is currently the fastest growing source of livelihood in Zambia. It needs to be provided with educational facilities to develop usable skills within the sector. There is a need to provide more technical and trade training to improve both its level of production and the quality of its products. Access to financial institutes for cooperatives or for individuals self-employed in the informal sector should be made available. The main objective in providing resources to this sector is to improve productivity so that the income of workers in it may be increased. In addition to the measures suggested, economic incentives should be provided to encourage some of the people in the informal sector to return to the land.

To implement the package for both subsistence and informal sectors, it will be necessary to change the whole investment pattern. Currently more than 80 per cent of all investable resources have been to the benefit of the formal urban sector. In the new approach, the government should use its power in the economy to direct more resources to the subsistence and informal sectors.

The present pattern of investment in the modern formal sector encouraged capital-intensive methods of production which created relatively fewer jobs per unit of investment. Most post-independence projects were large and capital-intensive. In order to increase future job creation capacity deliberate efforts should be made to select the type of industries which are labor-intensive. Further encouragement should be given to small-scale industries which tend to be capital-saving and labor-intensive.

It is hoped that this approach to the development program will create a more desirable, balanced development. We need to divert more resources and attention to improving the economic status of the poorest in both urban and rural sectors and, at the same time, restructuring the modern formal sector to generate growth and high employment using the appropriate technology.

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