

Population Growth and Rural-Urban Migration, with Special Reference to Ghana

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THIS ARTICLE will deal with the general relationship between population growth and rural-urban migration in Africa. More specifically, it will consider trends in rural-urban migration flows in Ghana between 1960 and 1970 as they relate to the growth of the population, as well as the size and direction of these movements. A study of rural-urban differentials with respect to sex, age, education and labour force participation rates will also be attempted with a view to establishing the background to the urban drift. One of the major aims of the article, however, will be to examine the assumption, inherent in Todaro's model², that individuals base their decision to migrate on considerations of income maximisation. To test this assumption, I shall study the disparity between urban and rural incomes in Ghana and its role as a determinant of rural-urban migration. An attempt will also be made to examine Zipf's hypothesis³ that the volume of interstate migration is a function of the population of the place of origin, the population of the place of destination and the distance between them. No detailed consideration will be given to migration models or to the various hypotheses or theories on rural-urban migration but the broad conclusions that can be drawn from them will be outlined. Thus for Greater Accra, the most urbanised region in Ghana, the number of inter-regional migrants, the distance between regions and the population of regions during the migration period (1960-70) will be considered within the framework of Zipf's hypothesis. Finally, I shall look at the effect of population growth on employment and unemploy-

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² See Michael P. Todaro: "Income expectations, rural-urban migration and employment in Africa", in *International Labour Review*, Nov. 1971, pp. 387-413, and the sources cited in footnote 1 on page 391 of that article.

³ George K. Zipf: "The P_1P_2/D hypothesis on the intercity movement of persons", in *American Sociological Review* (Washington), Vol. 11, 1946, pp. 677-686.

ment in urban and rural areas, and consider how changes in the industrial distribution of the labour force are likely to affect the unemployment situation in Ghana.

Total and urban population growth

Africa's population is currently estimated to be growing at the rate of approximately 2.5 per cent per annum. Precise vital statistics are not available but the censuses and demographic sample surveys carried out in a number of African countries suggest that the 2.5 per cent estimate is not an unreasonable one. The 1970 population census shows that Ghana's population grew at an average annual rate of 2.4 per cent between 1960 and 1970 (table 1). If adjustment is made for possible over-enumeration in 1960 and probable under-enumeration in 1970, a much higher growth rate of about 2.8 per cent per annum seems likely.

Owing to unreliable vital registration systems in most African countries, population censuses and sample surveys have been the only dependable source of demographic data. Dependable does not of course mean untainted with error, and analytical techniques specially developed for use in adjusting defective data have had to be applied in order to obtain vital rates. In many cases, each technique yields a slightly different set of results. Some of these estimates of vital rates obtained by the application of various techniques were discussed in a paper I wrote with K. V. Ramachandran.¹ The view expressed there was that a growth rate of 2.8 per cent per annum for the Ghanaian-born population during the period 1960-70 was consistent with the data obtained from the 1960 and 1970 population censuses of Ghana. Still higher estimates of 3.14 per cent growth for the total Ghanaian population have been obtained by Bogue *et al.*²; their estimates are consistent with a crude birth rate (i.e. the number of births per 1,000 of the population) of 48.0, a crude death rate of 16.6 and an expectation of life at birth of 45.7 years for males and 49.1 years for females.

Whatever estimate of the growth rate one accepts, the inescapable conclusion is that a high birth rate and a declining death rate are leading to unprecedented increases in Ghana's population. In approximately 25 years, at current rates of increase, the population is expected to double.

While the population of Africa as a whole is increasing rapidly, the population of its urban centres is increasing even faster. The definition of an urban centre differs from one country to another but it would seem

¹ K. T. de Graft-Johnson and K. V. Ramachandran: "An evaluation and analysis of the 1970 population census of Ghana", a paper presented to an ECA Seminar on Techniques of Evaluation of Basic Demographic Data, Accra, 1973.

² Donald J. Bogue, Jeanne C. Sinquefield, K. C. Zechariah and Peter Gardiner: *Some projections of the population of Ghana* (Chicago, University of Chicago's Community Family Studies Center, 1973).

TABLE 1. TOTAL AND URBAN POPULATION BY REGION, 1960 AND 1970

Region	Total population				Urban population			
	1960	1970	1960-70		1960	1970	As % of total	
			Increase %	Annual increase %			1960	1970
All regions	6 726 815	8 559 313	27.2	2.4	1 551 174	2 472 456	23.1	28.9
Western	626 155	770 087	23.0	2.1	154 612	207 343	24.7	26.9
Central	751 392	890 135	18.5	1.7	210 411	258 636	28.0	29.1
Greater Accra	491 817	851 614	73.2	5.6	393 383	726 553	80.0	85.3
Eastern	1 094 196	1 261 661	15.3	1.4	220 765	310 073	20.2	24.6
Volta	777 285	947 268	21.9	2.0	102 101	151 096	13.1	16.0
Ashanti	1 109 133	1 481 698	33.6	2.9	276 772	440 526	25.0	29.7
Brong-Ahafo	587 920	766 509	30.4	2.7	91 491	169 072	15.6	22.1
Northern	531 573	727 618	36.9	3.1	69 063	148 320	13.0	20.4
Upper	757 344	862 723	13.9	1.4	32 576	60 837	4.3	7.1

Sources: Census Office: 1960 population census of Ghana (Accra, 1964), and *ibid.*, 1970 (to be published).

that most African countries use population size for determining whether a locality is urban or rural. The urban criterion applied varies from 1,000 to 20,000 inhabitants. In Ghana, every nucleated settlement with a population of 5,000 or more is regarded as an urban locality. With this definition, urban residents constituted 12.3 per cent of the total population in 1948, 23.1 per cent in 1960, and 28.9 per cent in 1970 (table 1). The number of localities of all sizes rose from 30,397 in 1960 to 47,769 in 1970.¹ Most of this increase is accounted for by the large growth in the number of those localities—mostly agricultural settlements—with a population of less than 200 persons. In 1960 there were 24,169 such localities, but by 1970 the figure had risen sharply to 40,423. The proliferation of small localities is largely the result of the pattern of agriculture practised in Ghana; a discussion of this subject, however, falls outside the scope of the present article.

As is apparent from table 1, while the total population was growing at the unadjusted rate of 2.4 per cent per annum, the urban population was growing by 4.8 per cent per annum. This higher growth rate was mainly the result of rural-urban migration and to a smaller extent the result of an increase in the number of urban centres from 39 in 1948 to 98 in 1960 and 135 in 1970. The growth in the population of some of the large towns was extraordinarily rapid. The population of Accra City proper increased from 134,919 in 1948 to 347,815 in 1960 and 564,194 in 1970. The harbour city of Tema increased from 1,120 in 1948 to 14,937 in 1960 and 60,767 in 1970. Kumasi City proper increased from 71,436 in 1948 to 180,642 in 1960 and 260,286 in 1970. Finally, the population of Tamale, the capital of the Northern Region, increased from 17,187 in 1948 to 40,443 in 1960 and 83,653 in 1970. It may be noted that the growth rate of Greater Accra, the most urbanised region in Ghana, was 5.6 per cent per annum for the intercensal period 1960-70. Accra-Tema City Council (Tema District), one of its constituent local authorities, had a phenomenal growth rate of 14.4 per cent per annum in the same period. Some idea of the contribution made by migratory movements to growth rates of this magnitude may be had from table 2, which shows the size and direction of migratory streams as they affected the Greater Accra Region at the time of the last census.

The pattern of migration

It must be pointed out that in this same 1970 census only 57.1 per cent of the population (males 57.5 per cent, females 56.7 per cent) were enumerated in their locality of birth and 20.9 per cent (males 18.0 per cent, females 23.8 per cent) were enumerated in a locality other than their place of birth but in the same region. In addition, 17.9 per cent (males

¹ 1970 population census of Ghana, op. cit., Vol. I.

TABLE 2. LIFETIME IN- AND OUT-MIGRANTS BY REGION OF ORIGIN AND DESTINATION, GREATER ACCRA REGION, 1970

Region of origin and destination	Sex	Lifetime in-migrants	Lifetime out-migrants	Net lifetime migration
All regions	M	190 871	45 353	+145 518
	F	168 750	41 459	+127 291
Western (including Central)	M	44 835	11 434	+ 33 401
	F	41 158	9 371	+ 31 787
Eastern	M	64 938	17 464	+ 47 474
	F	63 734	16 906	+ 46 828
Volta	M	40 447	4 596	+ 35 851
	F	36 932	4 512	+ 32 420
Ashanti	M	21 957	6 297	+ 15 660
	F	16 102	5 798	+ 10 304
Brong-Ahafo	M	3 344	2 272	+ 1 072
	F	2 285	2 086	+ 199
Northern (including Upper)	M	15 350	3 290	+ 12 060
	F	8 539	2 786	+ 5 753

Source: 1970 population census of Ghana, op. cit., Vol. III.

19.6 per cent, females 16.3 per cent) were enumerated outside their (Ghanaian) region of birth, while 4.1 per cent (males 4.9 per cent, females 3.2 per cent) were born outside Ghana, mostly in another West African country. Thus, if we ignore the distortions introduced as a result of the census being a *de facto* count (and not a *de jure* one), we can approximately describe the first category (i.e. those born in the locality of enumeration) as non-migrants, the second category (those born in another locality but in the same region) as short-distance internal migrants, the third category (those born in Ghana but enumerated outside their region of birth) as long-distance internal migrants and the fourth category (those born outside Ghana) as immigrants.¹

It is known from other studies that migratory movements in Ghana follow the usual four-way traffic: rural to rural, rural to urban, urban to urban and urban to rural, but the one which is of primary concern in this article is the rural-urban movement. I shall discuss in some detail how far

¹ For a recent study of new and established immigrants to Ghana see N. O. Addo: "Foreign African workers in Ghana", in *International Labour Review*, Jan. 1974, pp. 47-68.

this movement is affected by the rapid population increase that Ghana and other African countries are currently undergoing. To put the discussion in the proper setting, however, I shall first consider briefly urban-rural differentials with respect to the sex-age composition of the population, education and labour force participation rates.

Urban-rural differentials

One immediately striking difference between urban and rural areas is the sex ratio (i.e. the number of males to 100 females) of the working-age population. This ratio is 98.5 for total population, but if we consider only the prime working age groups from 15 to 64 years, there is a clear preponderance of males over females in the urban centres (107.1) while they are heavily outnumbered (91.0) in the rural areas. Conversely, as may be seen from table 3, the under-15 age group has relatively fewer males in the urban areas than females or than males in the rural areas. These substantial differences or imbalances in the age-sex composition of the urban and rural areas are due mainly to the selective nature of migration. It is well known that most migration in the African region is for employment, so that those who are most likely to migrate are males in the working age groups.

TABLE 3. AGE DISTRIBUTION OF POPULATION BY SEX AND URBAN-RURAL RESIDENCE, 1970
(%)

Age	Total population		Urban population		Rural population	
	Male	Female	Male	Female	Male	Female
0-14	47.6	46.4	43.0	46.3	49.5	46.3
15-24	16.6	17.5	20.0	20.3	15.2	16.4
25-44	22.3	23.9	26.6	23.4	20.6	24.1
45-64	9.8	8.7	8.2	7.2	10.4	9.4
65+	3.7	3.5	2.2	2.8	4.3	3.8

Source: 1970 population census of Ghana, op. cit., Vol. III.

It is also known from studies carried out in many African countries that there are marked differences in educational opportunities between urban and rural areas. While in Ghana there has been an attempt to provide both the rural and urban areas with primary schools, it is in the provision of institutions above the primary level that the disparity in educational facilities is most keenly felt. The effect of this discrimination

TABLE 4. AGE-SPECIFIC REFINED ACTIVITY RATES BY SEX AND URBAN-RURAL RESIDENCE, 1970

(%)

Age	Males			Females		
	Total population	Urban population	Rural population	Total population	Urban population	Rural population
Total 15+	83.5	81.2	84.5	63.6	62.7	63.9
15-19	42.3	36.7	44.9	39.2	35.8	41.0
20-24	82.6	79.5	84.6	61.4	61.1	61.5
25-29	95.5	94.3	96.3	65.0	67.2	64.0
30-34	97.5	97.0	97.8	71.5	73.5	70.7
35-39	97.9	97.6	98.1	73.9	77.0	72.8
40-44	97.8	97.4	98.0	77.9	80.5	77.0
45-49	97.5	97.0	97.7	77.9	81.0	77.0
50-54	96.6	95.4	97.0	79.0	80.5	78.6
55-59	95.2	92.9	96.0	75.5	76.0	75.3
60-64	91.6	85.0	93.3	71.1	69.6	71.5
65-69	86.4	78.3	88.4	62.5	62.7	62.5
70-74	81.6	71.6	83.7	54.6	50.0	56.0
75-79	75.1	64.3	77.4	44.3	38.9	45.9
80-84	68.6	55.7	70.9	35.5	28.0	37.7
85+	51.1	39.7	53.2	21.9	16.8	23.5

Source: 1970 population census of Ghana, op. cit., Vol. IV.

is that the median period of schooling in the urban areas is longer than in the rural areas. The 1960 census showed that 14.2 per cent of male past school attendants in the urban areas had received schooling beyond the elementary (i.e. middle) school level, compared with 5.9 per cent in the rural areas. The corresponding figures for females were 10.2 and 2.4 per cent respectively.¹ Although the 1970 census figures are not yet available, it is anticipated that the gap between the urban and rural areas with respect to level of educational attainment will be found to have widened still further.

It is worth noting that there are no significant differences between over-all urban and rural activity (or labour force participation) rates, even for females. The 1970 census shows that while the nation-wide crude activity rate (i.e. the number of persons in the labour force expressed as a percentage of the total population) was 38.9 per cent for both sexes (males

¹ 1960 population census of Ghana, op. cit., *Advance report of Volumes III and IV* (Accra, 1962).

43.8 per cent, females 34.1 per cent), in the urban areas it was 40.0 per cent for both sexes (males 46.3 per cent, females 33.7 per cent), while in the rural areas it was 38.5 per cent for both sexes (males 42.7 per cent, females 34.3 per cent). This fairly regular pattern contrasts with the situation in many other developing countries where the crude activity rates for women, especially in the rural areas, tend to be much lower. It is not surprising, however, since Ghanaian women have traditionally occupied a prominent place in the labour force. It would have been interesting to compare Ghana's urban and rural activity rates with those for other countries in Black Africa. Unfortunately, no such information for the 1970s is available. It is hoped that now that the African census programme is under way the relevant data will be forthcoming in the near future to make such comparisons feasible.

Refined activity rates (i.e. the number of persons in the labour force expressed as a percentage of the total population aged 15 years and over) are shown in table 4. The substantially lower figures for urban areas in the age group 15-19 years may be attributed mainly to the inhibiting effect of school attendance on labour force participation rates. As already pointed out, there are more post-middle educational institutions in urban than in rural areas for persons wishing to continue their education.

The rationale for migration: a look at some theories

It is obvious that the effect of the high population growth rates of African countries is to increase the drift towards urban centres. Many theories have been put forward to account for this rural-urban drift, some of which will be examined here.

Urban-rural income disparities

Todaro has postulated¹ that individuals base their decision to migrate on considerations of income maximisation. This implies that they are motivated to migrate by the prospect of a higher minimum wage in urban areas than the prevailing level of wages in the rural sector. In Todaro's view, this is a perfectly rational choice, as far as the economic well-being of the individual migrant is concerned.

To test this hypothesis, it is necessary to discuss whether there is in fact any disparity between rural and urban incomes. Very few studies have been done on this subject in Africa, since the question of income determination for those who are not employees is not an easy one. Many research workers argue that the only way of measuring income under such circumstances is to use consumption as a proxy for disposable income. However, the field problems involved in collecting information

¹ Op. cit.

on consumption are immense. The Central Bureau of Statistics of Ghana has just completed a pilot survey in preparation for a larger-scale national survey of household income and expenditure, but no detailed analysis has yet been undertaken which would make it possible to assess the feasibility of using consumption data in place of income data. In particular, this pilot survey could have provided up-to-date information on rural and urban incomes. Unfortunately, we have to rely on earlier studies going back to 1962 in order to determine whether there really is any substantial difference between these incomes.

Here again the definition of urban centres used in Ghana raises conceptual problems. Some rich persons who work in urban centres live in small localities on the outskirts and are classified as rural dwellers. Thus the measurement of income differentials, using "urban centres" as defined in the census, could lead in certain cases to erroneous conclusions.

The first attempt in Ghana to measure rural incomes was made by Isaac on behalf of the ILO¹, using mainly data obtained from the National Survey of Household Expenditure conducted in 1962 by the Central Bureau of Statistics. He estimated that the mean of the rural incomes computed separately for the various regions was only 35 per cent of the national minimum wage of approximately US\$200 (in fact the per capita income at that time was only \$153). Isaac therefore assumed that there was a wide disparity between rural and urban incomes. His conclusions have been challenged by Ewusi² on the grounds that Isaac based his argument on the false assumption that rural workers do not save.

In 1967 the Institute of Statistical, Social and Economic Research conducted its own Household Budget Survey in the Eastern Region³ from which data on rural and urban incomes were obtained. In view of the lack of training and inadequate supervision of the field staff used, the results of this survey should be treated with caution. Nevertheless, its finding that annual rural incomes were approximately US\$50 (or 11.9 per cent) lower than urban incomes seems reasonable enough.

Rourke and Sakyi-Gyinae⁴ have investigated Todaro's hypothesis that given the continued existence of a substantial rural-urban differential in incomes, an economically rational choice on the part of the individual migrant would be to move to the urban centres in spite of the high unemployment rates in these centres. They use data published by the

¹ J. E. Isaac: "The national minimum wage", in *Economic Bulletin of Ghana* (Accra), Vol. III, No. 3, 1964.

² Kodwo Ewusi: "Economic objectives and priorities for rural development in Ghana", in *Ghana Journal of Sociology* (Legon), Vol. 6, 1971.

³ D. K. Dutta-Roy: *The Eastern Region Household Budget Survey*, ISSER Technical Publication No. 6 (Legon, 1968).

⁴ B. E. Rourke and S. K. Sakyi-Gyinae: "Agricultural and urban wage rates in Ghana", in *Economic Bulletin of Ghana*, op. cit., Second Series, Vol. 2, No. 1, 1972.

Central Bureau of Statistics as well as data obtained from a field survey they conducted. They conclude from their study that on the available evidence there was not too substantial a difference between actual daily wage rates recorded in 1970 for agricultural labourers "at least in southern Ghana" and the minimum wage for urban centres; and that as far as southern Ghana is concerned the problem is more one of differing degrees of underemployment in the rural and urban areas. The results of the 1971 Supplementary Enquiry, which have not yet been published, should be able to shed some light on any such disparities in visible underemployment as measured by the number of days worked during a specified reference period. No comparison of wage rates between urban and rural areas of northern Ghana is available from the Rourke-Sakyi-Gyinae study, but the pattern should not be very different from that found in southern Ghana.

The urban unemployment objection

Weeks¹ has questioned Todaro's hypothesis that the rural-urban income differential is the main determinant of rural-urban migration. If it were, then the basic aim of government wages policy should be to exercise wage restraint in order to curb the excessive rate of urbanisation. Weeks suggests that what is needed is a conscious effort to stimulate employment in the agricultural sector, land tenure reform, the use of improved practices in agriculture, technological innovation, and so forth.

Weeks's argument that the rural income criterion is not acceptable is based partly on the contention that in recent years rural-urban migration has been accompanied by high urban unemployment, which must reduce the urban income attraction. In fact it has been shown in many African countries that migration has worsened the unemployment problem in towns. In Ghana especially, there is a high correlation between unemployment rates and degree of urbanisation. In 1970 the three most urbanised local councils in the country—Accra-Tema City Council (Accra District), Accra-Tema City Council (Tema District) and Kumasi City Council—had "refined" unemployment rates (i.e. the unemployed population expressed as a percentage of the total population aged 15 years or more) of 7.6 per cent (males 9.0 per cent, females 6.0 per cent), 8.2 per cent (males 10.4 per cent, females 4.9 per cent) and 7.5 per cent (males 8.8 per cent, females 6.1 per cent) respectively. These high rates have to be compared with the national average of 4.3 per cent (6.4 per cent for males and 2.4 per cent for females). The correlation between unemployment rates and degree of urbanisation for the 141 local authorities into which the country was divided as at 1 March 1970 was high for females (0.6) but low for males

¹ John F. Weeks: "The problem of wage policy in developing countries with special reference to Africa", in *Economic Bulletin of Ghana*, op. cit., Second Series, Vol. 1, No. 1, 1971.

(0.1). The low male rate is due primarily to the low correlation coefficients recorded for the local authorities in two regions: Ashanti (-0.06) and Upper Region (0.06), the latter region being the most depressed area in the country with unemployment rates for some rural local authorities as high as 29.5 per cent. If these two regions are discounted, the unemployment rates of the local authorities in the remaining regions are highly correlated with degree of urbanisation (0.53 for males, 0.61 for females).

It is not just that there is a link between the growth of towns and unemployment: urban migrants, who are typically semi-educated, unskilled young persons, mostly primary and middle school leavers, are generally its chief victims. In 1960, of the total unemployed (both sexes) in urban centres, 60 per cent were migrants (males 66 per cent, females 45 per cent).¹ In the Greater Accra Region, only one-third of the unemployed were non-migrants. The data for 1970 have not yet been finalised but the preliminary indications are that migrants now account for an even larger proportion of urban unemployment.

Depressed social conditions

In a recent unpublished study, Kodwo Ewusi considered the impact of the following variables on the motivations and direction of migratory flows: (a) urbanisation ratio² of place of origin; (b) electricity consumption at place of origin (as a proxy for amenities); (c) distance between place of origin and place of destination; (d) literacy rate of place of origin; (e) electricity consumption at place of destination; (f) job opportunities at place of destination; and (g) urbanisation ratio of place of destination. Ewusi found that depressed social conditions at the place of origin are more compelling motivations for rural people to migrate than economic factors. However, once they decide to migrate, they base their choice of destination primarily on the economic opportunities available at that end. In other words, the social conditions prevailing at their place of origin act as the main push factor while the economic opportunities available in a particular town act as the pull factor attracting migrants to that locality.

Distance and population density

Another approach to understanding migration is Zipf's model.³ Although this model was developed to explain migration in general, it can be adapted to suit the particular case of rural-urban migration. Zipf has

¹ The corresponding figures in the rural areas were 43 per cent for both sexes (males 44 per cent, females 41 per cent).

² Defined as persons in urban localities expressed as a proportion of the total population of the area.

³ Op. cit.

posited that the number of interstate migrants is a function of the distance between the state of origin and the state of destination, the estimated population of the state of origin at the beginning of the migration period, and the estimated population of the state of destination. Again, making use of birthplace data, one finds that Zipf's assumptions are in general valid but that there are other more complex underlying factors which are not taken care of in his model. It seems clear, therefore, that distance and the population densities of the states of origin and destination are not the only determinants of the size of migratory movements.

In testing Zipf's hypothesis, I took Greater Accra, the region which includes the twin cities of Accra (1970 population 564,194) and Tema (60,767) and is the most urbanised region in Ghana (see table 1) as the region of origin. The distances between Greater Accra and the other regions were taken to be the distances between Accra and the capitals of these regions. This is a reasonable approach in view of the fact that the capitals are usually also the "centres of gravity" of the respective regions. It may be recalled that Western Region as it was constituted in 1960 has now been subdivided into two regions, Western and Central, while Northern Region has also been split into two regions, Northern and Upper. In order to test Zipf's hypothesis, I had to use the 1960 boundaries of the regions. Information on in-migrants and out-migrants, as measured for the Greater Accra Region, has already been given in table 2. Without resorting to Zipf's model, it is easy to see the relationship between distance and the number of migrants. Western, Eastern and Volta Regions, whose capitals are within a radius of 150 miles from Accra, supply most of the in-migrants, whereas Brong-Ahafo and Northern Regions, which are a long way from Accra, provide very few. Ashanti lies between the two extremes. Thus, the number of migrants between Greater Accra and each of the remaining regions is inversely proportional to the distance between them. Zipf's model also suggests that as the population of the regions bordering on Greater Accra grows, there will be a resultant rise in the number of net migrants into Accra.

Stemming the rural-urban tide

It can be argued that to curb the rapid flow of migrants from rural areas to urban centres, two main approaches may be adopted: (a) measures to increase rural incomes; and (b) provision of such amenities in the rural areas as a potable water supply, electricity, roads and good markets for rural products. It may be noted that an increase in the productivity of the rural worker is subsumed under the first alternative. The Ghana Government is currently using a combination of the two approaches in an attempt to stem the exodus from the rural areas. It is too early yet to measure the effect of these efforts at

rural development and their consequences for the rural-urban drift. However, it is certain that neither a rise in rural incomes alone, nor the provision of amenities by itself, will suffice to slow down the rate of urbanisation. A combination of both approaches, supported by job-creating activities in the rural areas, would seem to be the best strategy for any African government. Of course, some planning in urban areas is needed at the same time as the policy of regulated migration and integrated rural development is being vigorously pursued. Opinion seems to be divided as to the form a desirable policy on urban planning should take. There are those who argue that some sort of restriction on movement into urban areas should be imposed unless the migrant worker already has an assured job and accommodation there. Against this argument can be set the views of those who contend that such restrictions are a denial of the fundamental human right to freedom of movement. However, it is obvious that the raising of rural incomes together with an integrated rural development strategy will only work satisfactorily if the government adopts a master plan which covers both rural and urban development and allocates resources to both sectors in a rational manner.

As already indicated, the population of Africa is increasing rapidly. Attempts are being made in some countries to reduce the birth rate, but these efforts are not likely to slow down the growth rate appreciably before the turn of the century, by which time the population of the African Continent is expected to be about double its present size. Such enormous increases in population will, in the absence of successful attempts to stem the rural-urban drift, result in a high rate of urbanisation. The motivation for migrating to towns is, as I have attempted to show in the preceding paragraphs, more complex than some writers would like us to believe. In a nutshell, the rationale for rural dwellers choosing to migrate to towns is their perception of what they consider town life holds in store for them. Whether their views are rational or not is irrelevant to the discussion. What is relevant is their expectation of a life better than the humdrum one they are used to in the rural areas. This question of motivation is a complex one and shortage of space unfortunately precludes further discussion of it here.

Employment effects of population growth

There are two effects of the rapid population increase of African countries and its contribution to the growth of towns which deserve consideration. These are the effects on the proportion of the population engaged in agriculture and on underemployment.

The results of the 1970 census of Ghana showed that 57.2 per cent of the employed population (males 59.3 per cent, females 54.6 per cent) were engaged in agriculture (including forestry, logging and fishing). A large

TABLE 5. EMPLOYED PERSONS BY MAJOR INDUSTRIES, 1960 AND 1970

Industry	Number employed		% distribution	
	1960	1970	1960	1970
All industries	2 559 383	3 133 042	100.0	100.0
Agriculture	1 581 331	1 790 713	61.8	57.2
Mining	48 221	30 987	1.9	1.0
Manufacturing	233 947	376 377	9.1	12.0
Construction	88 653	73 579	3.5	2.3
Electricity, water and gas	14 189	12 243	0.6	0.4
Commerce	371 131	435 967	14.5	13.9
Transport and communications	67 823	84 327	2.6	2.7
Services	154 088	328 849	6.0	10.5

Sources: 1960 population census of Ghana, op. cit., and *ibid.*, 1970, op. cit., Vol. IV.

proportion of this population was engaged in subsistence farming. The share of the employed population working in agriculture in 1970 showed a slight decrease from the 1960 figure of 61.8 per cent (males 63.9 per cent, females 58.4 per cent). Experience in other countries suggests that the proportion of the employed population engaged in agriculture will continue to fall in the coming years as the population increases. This a clearly predictable pattern. Even if the present Government's policy of encouraging persons, especially the young, to take to farming proves successful, the very success of the programme will most likely result in fewer persons being required in agriculture.¹ In fact, agricultural labour is currently underutilised. With the application of more efficient methods to raise productivity on the farms, the degree of underemployment is likely to decrease, but will be replaced by the more sinister spectre of unemployment. The rate at which net additions are made to the labour force is such that the creation of enough jobs to match the new entrants may prove to be beyond the capacity of many African governments. Some of these governments have experimented with various labour-intensive schemes for curbing unemployment. In Ghana, the Builders' (later the Workers') Brigade, the National Service Corps and the Settlement Farm programme are among the schemes which have been tried since the country achieved independence in 1957. Yet all these projects, though originally intended to be labour-intensive, in practice became capital-intensive and thus failed to stop the rising unemployment.

¹ It has often been remarked that if adequate steps are not taken by governments, the very success of the Green Revolution will spell disaster in other areas of the economy.

Table 5 shows shifts in the distribution of employment by industry between 1960 and 1970. These changes have implications for trends in urban unemployment. Mention has already been made of the decline in the proportion of the employed population working in agriculture between 1960 and 1970, and of the possible effect of this in swelling the ranks of the unemployed in urban centres. The increase in both absolute and relative terms of those employed in the manufacturing sector can also be ascribed to an increase in the number of industrial establishments set up in urban centres. These new manufacturing industries are generally sited in the large cities, mainly the Accra-Tema metropolitan area; they act as a magnet drawing migrants into this area and contribute to the prevailing high rate of population growth there.

The answer to the dual problems of rural-urban migration and unemployment seems to lie in an integrated rural development policy, where attempts to raise rural incomes are accompanied by steps to provide essential amenities and all necessary infrastructure in the rural areas, supported by rational planning in the urban areas. A clear-cut government policy of encouraging and providing the necessary incentives for the establishment of industries, large as well as small, in the rural areas, will go a long way towards curbing the excessive drift to the urban centres.
