

# Internal Migration, Urban Population Growth and Unemployment in Developing Nations: Issues and Controversies

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## I. The Historical Model and Contemporary Experience

The literature on demographic change in developing countries has quite naturally focused heavily on the determinants and consequences of aggregate population growth. Questions of population distribution in general and internal (mainly rural-urban) migration in particular have been of much less concern to the population community. Yet, within the Third World itself, the majority of governments, particularly those in Latin America and Africa, express relatively greater concern with the issue of rapid urbanization and rising urban unemployment caused by the accelerated migration of both men and women from the rural countryside than with population growth *per se*. As populations become less dispersed and cities continue to act as magnets attracting the rural educated and uneducated in steady but inexorably growing numbers, the 'population problem' tends to become more visible, both in the context of greater crowding and the increased underutilization of human resources. Disguised (and silent) rural underemployment becomes visible (and vocal) urban unemployment.

The historical process of Western economic development has often been described in terms of the gradual but continuous transfer of economic activity and human resources from the low-productivity, labor-intensive traditional agricultural sector to the

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high-productivity, capital-intensive modern industrial sector. With low-to-moderate rates of overall population growth and the steady expansion of urban industry, the process of transferring physical and human resources from dispersed rural communities to a few concentrated urban centers was apparently accomplished without undue problems of modern sector labor absorption. This historical model has consequently served as a blueprint for growth and development in the contemporary Third World.

Unfortunately, patterning the modern development process on the historical example of the now developed countries has been, in most cases, less than successful, if not an outright failure. True, in terms of the growth of modern sector output and the steady increase in the proportion of total output derived from industry as opposed to agriculture, there have been a few success cases. However, the benefits of such growth have in most instances failed to reach the majority of the indigenous population in the form of increased income and employment. Yet, despite rising levels of urban unemployment and underemployment, the cities continue to fill up and urban migration has become a critical issue for Third World governments.

It is a safe prediction, therefore, that whether or not countries are successful in reducing overall rates of population growth, the twin problems of rapid urbanization and rising urban marginalism will, in the coming years, continue to rise to the top of the agenda of the development debate. Increasingly, Third World policymakers will be called upon to either moderate the flow of internal migration, or if this seems too difficult short of coercion, to attempt to ameliorate the consequences of such profound movements of people from rural to urban areas.

Fortunately, recent theoretical and empirical research on the determinants and consequences of internal migration in a wide range of developing nations now provides the basis for more purposeful policy decisions than were hitherto available. This paper represents an attempt briefly to summarize these findings and to suggest a typology of policy alternative that can assist Third World governments in their efforts to cope with the many problems associated with rapid urban population increase.

## **II. The Determinants of Rural-Urban Migration: Theory and Evidence**

Although people migrate for a variety of reasons, the empirical

evidence clearly indicates that the overwhelming determining factor is economic betterment.<sup>1</sup> People migrate from rural to urban areas quite simply because it is in their private economic interests to do so, even in the context of high urban unemployment. Although there may be no conscious calculation of benefits and costs, most surveys reveal that the vast majority of migrants move to improve their economic well-being. They compare their long-term financial prospects both in terms of prevailing income levels and the availability of income-earning opportunities in urban and rural areas, and move when prospects in the former locality exceed those in the latter. In effect, migrants - whether consciously or not - appear to weight both the short - and long-term expected (i.e., probabilistic) benefits against the costs (both direct and indirect) of moving. The fact that almost all studies reveal that migrants tend to be younger and more educated than their rural counterparts attests to the significance of longer-term perspectives (for the young) and the importance of the actual magnitude of urban-rural differentials in expected income (i.e., average income adjusted for the probability that a migrant will engage in a successful job search over some given time horizon), since those with more education have a higher probability of securing higher paid jobs than those with less education.<sup>2</sup>

Although the basic decision to migrate emanates from a comparison of rural income with expected urban income, there are many factors that affect these income-earning possibilities. On the rural side these include, among others, the system of land tenure, the structure of farm input and output prices, the availability of feeder roads and local marketing facilities, the magnitude, terms and accessibility of rural credit, the degree of under, or, more likely, overvaluation of foreign exchange rates and the relative price structure (terms of trade) between agricultural and industrial commodities.

On the urban side, factors such as the structure of modern sector wages, the level of urban unemployment, (and, thus, the probability of finding modern sector jobs), the size of the urban traditional (informal) sector, the nature of linkages between urban modern and traditional sectors, the extent to which limited modern sector jobs are allocated ('rationed') by educational cer-

1 Among the numerous recent surveys of the migration literature-all of which underline the economic determinants-the following are perhaps the most instructive: see Findley (1976), Shaw (1975), Stark (1976), Todaro (1976) and Lipton (1980).

2 For persuasive empirical support of this statement in the case of Tanzania, see Barnum and Sabot (1975).

tification, and the availability and cost of urban housing, food, and social amenities all tend to influence, directly and indirectly, the decision to migrate. Finally, the costs of moving (both actual and 'opportunity') and, especially, the ease with which unemployed migrants can support themselves or be supported by relatives and friends in the city while they engage in their job search activities provide the final major component of the decision to migrate.

The expected income migration model, therefore, has the following four basic characteristics.<sup>3</sup>

1. *Migration is stimulated primarily by rational economic considerations of relative benefits and costs, mostly financial but also psychological;*
2. *The decision to migrate depends on expected rather than actual urban-rural real wage differentials where the expected differential is determined by the interaction of two variables, the actual urban-rural differential, and the probability of successfully obtaining employment in the urban modern sector;*
3. *The probability of obtaining an urban job is inversely related to the urban unemployment rate;*
4. *Migration rates in excess of urban job opportunity growth rates are not only possible but rational and even likely in the face of wide urban-rural expected income differentials. High rates of urban unemployment are, therefore, inevitable outcomes of the serious imbalance of economic opportunities between urban and rural areas of most underdeveloped countries.*

We may conclude (and this conclusion is extensively supported by recent research) that whenever expected net (i.e., net of costs) long-term economic prospects in urban areas exceed those in rural regions, migration from the countryside to the city will remain a privately rational decision, even in the context of high and rising urban unemployment. Where urban modern sector wage rates are greatly in excess of average rural incomes and where these wages tend to be unresponsive to conditions of labor demand and supply (i.e., 'inflexible downward' in the economist's jargon) because of the institutional nature of most modern sector wage determination (e.g., because of trade union pressure, politically motivated

<sup>3</sup> For a detailed description of the basic expected income (Todaro) migration model with recent extensions and modifications, see Todaro (1976), Chapters 3 and 4.

government salary scales, multinational corporation wage structures, etc.), then we can expect both the rural educated and uneducated to continue to flock into the cities in search of increasingly elusive but still highly paid and, therefore, in terms of expected incomes, highly attractive urban jobs.

Migration in the context of high unemployment is thus analogous to a lottery; as long as the long-term expected payoff (probability  $\times$  wage) exceeds the cost of the ticket (i.e., the cost of the move and job search), then continued migration makes economic sense for the private individual. In the terminology of economics, discounted private expected benefits of migration exceed discounted costs by more in urban than in rural areas. As a result, urban private benefit/cost ratios are higher than corresponding rural ratios. But what of the social benefits and costs?

### III. The Consequence of Migration: Private and Social

In contrast to the abundant literature on the *determinants* of migration and the demographic characteristics of migrants, research on the consequences of rural-urban migration, especially from a social perspective, has been relatively thin.<sup>4</sup> When analyzing the consequences of migration, however, it is important to distinguish between the private (i.e., for the individual migrant and his or her immediate and/or extended family) and the social (i.e., the rural or urban region as a whole) implications.

#### A. *Private Consequences*

Almost all of those studies that do examine the consequences of migration focus on the private economic benefits and costs for the individual migrant and perhaps his or her family. Not surprisingly, these studies usually show that individual migrants who have remained in the city (no studies to my knowledge have ever tracked down return migrants in rural areas) are better off financially than if they had remained in their rural villages. This finding is true not only for those who do find regular wage and salaried jobs in the modern sector, but in most cases, also for those who find part-time wage or self-employment in the urban 'traditional' or 'informal' sector. In the latter case, however, the income differential between

4 A useful discussion of this topic can be found in Gaude and Peek (1976), pp. 329-38 and, particularly, in Gaude (1976).

urban traditional and average rural economic activity can be quite small and, when adjusted for differentials in the cost of living, may even become negative. Nevertheless, since most migrants in the urban traditional sector are in a continuous, if only part-time, process of job search for urban modern employment, their ability to at least match their average rural incomes while searching for the elusive but high paid job still implies a rational long-term maximizing decision.

As pointed out earlier, for the *individual*, rural-urban migration is likely to lead to an improved financial situation. If it didn't, migration rates would be greatly reduced. Recall also that when expressed in terms of an expected income maximization model, such rural-urban movements can remain economically very rational despite high and rising levels of urban unemployment. Just as individual families may show little concern for problems of aggregate population growth when there exist net private benefits to having more children, so too, individual migrants show little concern for the social consequences of rising urban unemployment when their private expected incomes in the urban job lottery continue to exceed the financial prospects of rural life.

One, however, must be very cautious when interpreting survey data that reveal financial improvements for the average migrant. In particular, some economists undertaking migration research have fallen into the neoclassical trap of concluding that since rural-urban migration pays for many individuals, it must also pay for society. They conclude, therefore, that migration should be encouraged not only on economic efficiency but also on equity grounds.<sup>5</sup> There is a major weakness, however, with this argument. In almost all developing nations urban actual wage rates are greatly in excess of urban 'shadow' or 'opportunity' wage rates and, typically, also in excess of urban labor productivity. On the other hand, average rural income (especially when non-monetary income is included) usually provides a good index of average rural productivity.

To conclude, therefore, that migration is beneficial on the basis of higher reported private money incomes of migrants is to make the Western economist's mistake of assuming that urban wage levels are a reflection of urban productivity rather than the outcomes of various institutional (i.e., non-economic) forces that actually 'distort' factor prices in economically undesirable ways.

<sup>5</sup> See, for example Rodgers (1977)

True, average migrants do improve their financial status (otherwise most wouldn't move) but this improvement in no way reflects the social productivity benefits of the intersectoral shift in economic activity canonized by the historians of economic growth in the Western World. There are surely better and socially less costly ways to redistribute income or improve the financial lot of the rural poor - e.g., small-farm rural development, promotion of labor-intensive rural industry, etc. - than to further distort economic signals and incentives through urban-biased development strategies.

### *B. Social Consequences*

Implicit in the above argument about private returns and distorted urban wage structures was the notion that private benefit cost calculations may not reflect social benefit cost ratios and that improvements in the former may not therefore correlate with gains in the latter. What may appear privately desirable may be socially very costly. This we believe is the situation with regard to internal migration in most contemporary developing countries, particularly those where the rate of rural-urban migration continues to exceed the rate of urban employment creation. What are the social, as opposed to the private, costs of such excessive internal migration? Among others they include:

1. *The reduction in rural food output* resulting from the loss of able-bodied and often better educated young men and women. Except in the extreme (and usually, undocumented) instances of severe surplus rural labor in the Arthur Lewis sense of zero marginal productivity, any outmigration must perforce entail a loss of rural output. When migrants are also both younger and better educated than their rural counterparts who do not move (as is the case in most Third World countries), then measuring the loss of output in terms of average rural labor productivity may yield a substantial downward bias to estimates of foregone food or cash-crop production. Since many of these migrants are likely to spend some time in urban traditional sector activities (e.g., hawking, small retail trade, maintenance and repair, domestic service, prostitution, etc.) before attaining a high paid but perhaps socially unproductive urban job (e.g., clerks and others in bloated and bureaucratically inefficient and unmotivated civil service employment), there may be a con-

siderable net loss in *real* social product as a result of excessive migration in response to artificial economic signals and incentives.

- 2 *The extra investment costs of providing urban as opposed to rural sector jobs for the urban unemployed.* For example, an ILO study of the per worker investment costs of job creation in Egypt showed that these costs were almost nine times higher for urban as compared to rural jobs.<sup>6</sup> Since urban labor productivity typically is not equally as high a multiple of rural productivity, such investment implies a serious sectoral misallocation of scarce resources.
- 3 *The extra costs of providing urban as compared to rural social services* including housing, transportation, schools, hospitals, sanitation facilities, etc. Moreover, as populations become more concentrated, the demand for such services takes on a political dimension that did not exist when such demands were scattered around the countryside. Pressure on governments to respond thus causes an added component to the resource misallocation problem (e.g., the funds spent on expanded urban social services might have better been spent on rural industry, small-farm credit, feeder roads, rural schools and health clinics). In addition, responding to rising demands for more urban amenities as city populations grow may, in fact, just as in the case of urban job creation, (see below) exacerbate the problem of urban social service delivery to the extent that additional rural-urban migration is thereby stimulated. We thus have the paradox, to be explored in more detail below, that *the more governments respond disproportionately to the needs and demands of urban residents, the faster will urban populations grow and the more the government will have to spend merely to keep per capita services at a constant level.* Thus the policy may be self-defeating.
4. *The potential increase in rural fertility.* Although most of the population literature on urban and rural fertility indicates that urban birth rates are relatively lower (with, however, some notable recent exceptions in LDCs) and, thus urbanization is seen as a positive force for fertility reduction, it is not at all self-evident that the reverse might not in fact be true - i.e., excessive migration may raise

6 International Labor Office (1969).



rural fertility while having little or no effect on urban fertility. The reason is that as long as crowded rural villages can export their most able-bodied labor to urban job markets and anticipate urban-rural cash remittances when a modern sector job is found, the social and economic pressures for reducing fertility in the region of outmigration will be that much less. In fact, families may decide that household income can be maximized by simultaneously exporting labor to earn urban income while replacing the migrating teenager with another child. Moreover, if average rural money incomes rise as a result of successful urban job search combined with rural remittances of a portion of migrant wage earnings, the effect of this as reduced land pressure on rural fertility is likely to be positive in the short-to-medium run. This often-neglected positive effect, therefore, needs to be balanced against any negative fertility effect arising out of the impact of the age-selectivity of migrants (i.e., those in the 15-24 bracket) on rural age composition and thus fertility.

On the other hand, if this same income were generated directly in the rural area itself as a result, say, of expanded female non-farm employment opportunities or more time-intensive, non-seasonal (e.g., multiple crop) cultivation of new cash crop varieties, there may be a gradual decline in rural fertility as the costs of child-raising rise and the consumption choice set of the family broadens. In any case, the social consequences of rural-urban migration for aggregate and sector-specific population growth rates are not as self-evident as the population literature would lead us to believe.

In all of the above cases of the social costs of migration in excess of job opportunities, the empirical evidence is both scanty and ambiguous at best. This, therefore, is a critical area for intensive, policy-oriented and country-specific social science research. However, on a *priori* intuitive and theoretical grounds (i.e., the expected income migration model) it could well be argued that the social costs of too-rapid migration (in terms of urban job creation) greatly exceed any private benefits. The case for more purposeful government policy designed to regulate the flow and channel it into more socially desirable directions thus becomes apparent.

#### IV. Migration Policy: Determinants and Components

Internal migration policies can conveniently be classified into

two broad categories: (1) migration-influencing policies designed to affect the *composition*, *direction* and *rate* of migration, and (2) migration-responsive policies designed to ameliorate the economic and social consequences of a given pattern of migration.

### *A. Migration-Influencing Policies*

Included among migration-influencing policies are: (1) those designed to modify the *composition* of a given migrant stream in terms of occupational, educational, sex, age, class or ethnic characteristics. This might be done, for example, through the establishment of urban labor exchanges, changing job specifications, legislating restrictions on regional population movements by means of pass laws and quotas, etc.; (2) those affecting the *direction* of migration through the creation of more or fewer economic opportunities in either origin (mostly rural) or destination (typically urban) areas; and (3) those intended to influence the overall *rate* of internal migration, again primarily through the allocation of public and private investment funds into rural as opposed to urban areas so as to bias income-earning opportunities towards rural (to slow down migration) or urban centers (to speed it up). Let us look specifically now at some alternative policies that have been suggested to enable LDC governments to cope with rising urban unemployment.

#### *(1) Rural Development*

In those countries where rural-urban migration is deemed excessive, both in terms of the ability of the urban economy effectively to absorb its growing labor force in productive employment and the social costs of accommodating marginal workers, public policy must first and foremost be geared towards the creation of higher income-earning possibilities in rural areas. This will promote an improved sectoral balance between available employment opportunities in urban and rural regions. Since migrants are assumed to respond to differentials in expected incomes, it is vitally important that imbalances between economic opportunities in rural and urban sectors be minimized. For example, by permitting urban wage rates to grow at a greater pace than average rural incomes, governments stimulate further rural-urban migration in spite of rising levels of urban unemployment. This heavy influx of people into urban areas gives rise not only to socioeconomic problems in the cities, but it may also eventually create problems of labor shortages

in rural areas, especially during the peak planting and harvesting seasons.

Thus, the main thrust of migration policy should be in the direction of both public investment in rural development (and, where appropriate, land reform accompanied by the provision of rural extension services) and the creation of incentives for non-farm labor-intensive private enterprise to flourish in those same rural localities (e.g., through the development of new towns, industrial decentralization, etc...)

## (2) *Urban Job Creation*

The traditional (Keynesian) economic solution to urban employment, i.e., the creation of more urban jobs, without simultaneous attempts to improve rural income and employment opportunities can lead to the paradoxical situation where more urban *employment* leads to higher levels of urban and rural unemployment!<sup>7</sup> Once again, the imbalance in expected income-earning opportunities is the crucial concept. Since migrants are assumed to respond positively to *both* higher urban wages and higher urban employment opportunities (or probabilities), it follows that for any given positive urban-rural wage differential (in most LDCs urban wages are typically three to four times as large as rural wages), higher urban employment rates will widen the expected differential and induce even higher rates of rural-urban migration. For every new job created, two or three migrants who were otherwise productively occupied in rural areas may be induced to come to the city. Thus, if 100 new jobs are created, there may be as many as 300 new migrants and, therefore, 200 more urban unemployed. A policy designed to reduce urban unemployment, therefore, may lead not only to higher levels of urban unemployment but also to lower levels of agricultural output.

Thus, while the expansion of urban modern sector job opportunities is a necessary long-run policy objective, its short-to medium-run implications for worsening problems of urban unemployment and underemployment, especially in the context of worsened urban-rural expected income differentials, should not be overlooked.

7 See Todaro (1969).

(3) *Post-Primary Educational Expansion and the 'Certification' Dilemma*

The expected income migration model also has important policy implications for curtailing investment in excessive formal educational expansion, especially at the post-primary levels. The heavy influx of rural migrants into urban areas at rates much in excess of new employment opportunities has often necessitated a rationing device in the selection of new employees. Although within each educational group such selection may be largely random, many observers have noted that employers tend to use educational attainment or number of years of completed schooling as the typical rationing device.<sup>8</sup> For the same wage, they will hire those with more education in preference to those with less even though extra education may not contribute to better job performance. Jobs which could formerly be filled by those with primary education (sweepers, messengers, filling clerks, etc.) now require secondary training; those formerly requiring a secondary certificate (clerks, typists, bookkeepers, etc.) now necessitate a university degree. It follows that for any given urban wage, if the probability of success in securing a modern sector job is higher for those with more education, their expected income differential will also be higher and they will be more likely to migrate to the cities. The basic expected income model, therefore, provides an economic rationale for the observed fact in most LDCs that rural inhabitants with more education are more likely to migrate than those with less.

From the viewpoint of educational policy, it is safe to predict that as job opportunities become scarcer in relation to the number of applicants, students will experience increasing pressure to proceed further up the educational ladder. The private demand for education, which in many ways is a 'derived demand' for urban modern sector jobs, will continue to exert tremendous pressure on governments to invest in post-primary school facilities. But for many of these students, the specter of joining the ranks of the 'educated unemployed' becomes more of a reality with each passing year. Government overinvestment in post-primary educational facilities thus often turns out to be an investment in idle human resources. This is not only bad economics but also, in the long run, bad politics if student uprisings in Sri Lanka, Bangladesh (when it

<sup>8</sup> For an analysis of the certification-unemployment phenomenon in developing countries, see Edwards and Todaro (1973), and, more recently, Dore (1976).

was East Pakistan), the Philippines and Ethiopia are at all instructive.

#### (4) *Wage Subsidies and Traditional Scarcity Factor Pricing*

A standard economic policy prescription for generating urban *employment* opportunities, is to eliminate factor-price distortions by using 'correct' prices - perhaps implemented by wage subsidies (i.e., fixed government subsidies to employers for each worker employed) or direct government hiring. Since actual urban wages generally exceed the market or 'correct' wage as a result of a variety of previously mentioned institutional factors, it is often argued that the elimination of wage distortions through price adjustments or a subsidy system will encourage more labor-intensive modes of production. While such policies can generate more urban employment opportunities, they can also lead to higher levels of unemployment in accordance with the argument above about induced migration. The overall welfare impact of a wage subsidy policy when both the rural and urban sectors are taken into account is not immediately clear. Much will depend on the level of urban unemployment, the size of the urban-rural expected income differential, and the magnitude of induced migration as more urban jobs are created.<sup>9</sup>

#### B. *Migration-Responsive Policies*

Although in the past the migration policies of most Third World governments were little more than passive responses designed to accommodate existing population adjustments, it is a reasonable assumption that, in the future, migration policy will be more of the 'influencing' variety discussed above. Nevertheless, a few words about migration-responsive policies are necessary to complete our discussion.

Migration-responsive policies have, up to the present, taken three alternative forms: accommodation, neglect or rejection.

*Accommodation policies* attempt to respond to migration in a positive manner by providing at least a minimum level of social services to new migrant communities, whether these communities

<sup>9</sup> For an economic analysis of wage subsidies and their potential effects on migration see Harris and Todaro (1970). A simpler and more general model of migration response to urban employment creation can be found in Todaro (JDE 1976).

take the form of squatter slums and shantytowns or new low-cost urban housing developments. Basic sanitation facilities may be provided along with dirt roads, small health clinics, schools and perhaps even some small-scale public industry. While some form of accommodation is clearly desirable, one must not forget that, like urban job creation programs, the provision of per capita amenities and costly social and educational services much in excess of those found in most rural areas can actually exacerbate the migrant settlement problem by stimulating even greater population movements. Thus, for example, the same funds might better be spent on the delivery of these social and educational services to a few key rural areas.

While policies of neglect or *laissez faire* may seem on the surface to be no policy at all, they are in fact representative of conscious government decisions to let natural events take their course in the urban economy and, particularly, in the urban traditional sector. In the context of excessive rural-urban migration, responses of neglect may sometimes be desirable for reasons discussed earlier relating to induced migration.

Finally, at the other extreme from active accommodation migration policies are those rejection policies often encountered in African urban areas. Typically, migrants are either encouraged to 'return to the land' or forcibly removed and transported back to home communities. In the particular case of Tanzania, an alternative to urban marginalism has been offered in newly created cooperative 'Ujamaa' rural villages. In some cases, however, the forcible rejection policy can take on violent forms as, for example, in the periodic burning-down or leveling of squatter settlements on the periphery of cities like Nairobi, Lagos, or Kampala. Clearly there are better and more humane ways to deal with problems of explosive urban population growth than, forcible expulsion. In any case, such expulsion rarely works, for within a few weeks of being rounded-up and carted off to the countryside, most of the marginal urban dwellers are back in some other part of the city's teeming slums.

## V. Conclusions

Policies which operate only on the demand side of the urban employment picture such as wage subsidies, direct government hiring, elimination of factor-price distortions, and employer tax incentives are probably far less effective in the long run in

alleviating the growing unemployment problem than are policies designed directly to regulate the supply of labor to urban areas in ways other than restriction or expulsion. Clearly, however, some combination of both demand and supply policies is most desirable.

Policies of rural development are, as we have seen, crucial to this aim. Many astute observers of Third World development agree on the central importance of rural and agricultural development if the urban unemployment problem is to be solved. Most proposals call for the restoration of a proper balance between rural and urban incomes and the moderation of government policies which give development programs a marked bias towards the urban industrial sector (e.g., in the provision of health, educational and other social services).

Given the political difficulties of reducing urban wage rates, the need continuously to expand urban employment opportunities through judicious investments in small- and medium-scale labor-intensive industries, and the inevitable growth of the urban industrial sector, every effort must be made to broaden the economic base of the rural economy at the same time. The present range of economic and non-economic incentives for rural-urban migration needs to be minimized through creative and well-designed programs of integrated rural development. These should focus on income generation, both farm and non-farm employment growth, health delivery, educational improvement, infrastructure development (electricity, water, roads, etc.) and the provision of other rural amenities. Successful rural development programs adapted to the socioeconomic and environmental needs of particular countries and regions seem to offer the only viable long-run solution to the problem of accelerated internal migration and rapid urbanization.

To assert, however, that there is an urgent need for policies designed to curb the excessive influx of migrants through the promotion of rural development is not to imply an attempt to reverse what some have called 'inevitable historical trends.' Rather, the implication of the expected income migration model presented in this paper is that there is a growing need for a 'policy package' that does not exacerbate these historical trends towards urban population growth by artificially creating serious imbalances in economic opportunities between urban and rural areas.

## References

- Barnum, H. N. and R. H. Sabot, *Migration, Education and Urban Surplus Labor: The Case of Tanzania*, OECD, Development Centre Employment Series Monograph, Paris, 1975 (mimeo).
- Dore, R. P., *The Diploma Disease: Education, Qualification and Development*, Berkeley, University of California Press, 1976.
- Edwards, E. D. and M. P., Todaro, "Educational Demand and Supply in the Context of Growing Unemployment in Less Developed Countries," *World Development*, Vol. 1. Nos. 3 and 4, 1973, pp. 107-17.
- Findley Sally E., *Planning for Internal Migration: A Review of Issues and Politics*, U.S. Bureau of the Census, Washington, D.C., Nov. 1976.
- Gaude, J. and P. Peek, "The Economic Effects of Rural-Urban Migration," *International Labor Review*, Vol. 114, No. 3, November-December, 1976, pp. 329-338.
- , "Causes and Repercussions of Rural Migration in Developing Countries: A Critical Analysis," ILO, WEP 10-6/WP-10, Oct. 1976.
- Harris, J. R., and M. P. Todaro, "Migration, Unemployment and Development: A Two Sector Analysis," *American Economic Review*, Vol. 60, No. 1, March 1970, pp. 126-42.
- International Labor Office, *Employment in Africa: Problems and Policies*, Geneva, Report IV (1), Third African Regional Conference Accra, 1969.
- Lipton, M., "Migration from Rural Areas of Poor Countries," *World Development*, Vol. 8, pp. 1-24, 1980.
- Rodgers, G. B., "Demography and Distribution," *Population and Employment Working Paper*, No. 49, ILO, Geneva, February 1977.



- Shaw R. Paul, *Migration Theory and Fact: A Review and Bibliography of Current Literature*, Regional Science Research Institute, Philadelphia, 1975.
- Stark, O., "Rural-to-Urban Migration and Some Economic Issues: A Review Utilizing Findings of Surveys and Empirical Studies Covering the 1965-75 Period," *Population and Employment Working Paper*, No. 38, ILO, Geneva, 1976.
- Todaro, Michael P., *Internal Migration in Developing Countries: A Review of Theory, Evidence, Methodology and Research Priorities*, ILO, Geneva, 1976.
- , "A Model Labor Migration and Urban Unemployment in Less Developed Countries," *American Economic Review*, Vol. 59, No. 1, March 1969, pp. 138-48.
- , "Urban Job Expansion, Induced Migration and Rising Unemployment: A Formulation and Simplified Empirical Test for LDC," *Journal of Development Economics*, Vol. 3, No. 3, Sept., 1976, pp. 211-26.

